Installation Guide **Included Installation Instructions**

Network Camera

Model No. WV-SW175/WV-SW172





Panasonic Corporation

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

The model number is abbreviated in some descriptions in this manual. This document is the Installation Guide for use in other countries except Japan.

- To prevent injury, this apparatus must be securely attached to the floor/wall/ceiling in accordance with the installation instructions. The installation shall be carried out in accordance with all applicable installation rules.
- The connections should comply with local electrical code.

For U.S.A This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material - special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate/

CAN ICES-3(A)/NMB-3(A)

For Canada

For U.S.A

For U.S.A

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 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 computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The model number and serial number of this product may be found on the surface of the unit. You should note the model number and 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.

For Europe We declare under our sole responsibility that the product to which this declaration relates is in conformity with the standard or other normative document following the provisions of Directive Wir erklären in alleiniger Verantwortung, daß das Produkt, auf das sich diese Erklärung bezieht,

mit der folgenden Norm oder normativen Dokument übereinstimmt. Gemäß den Bestimmungen

Important safety instructions

- Read these instructions Keep these instructions Heed all warnings
- Follow all instructions.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat

Nous déclarons sous notre propre responsabilité que le produit auquel se réfère la présente

aux dispositions de la directive 2004/108/CE.

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déclaration est conforme á la norme spécifiée ou à tout autre document normatif conformément

Nosotros declaramos bajo nuestra única responsabilidad que el producto a que hace referencia esta declaración está conforme con la norma u otro documento normativo siguiendo las estipu-

Noi dichiariamo sotto nostra esclusiva responsabilità che il prodotto a cui si riferisce la presente

dichiarazione risulta conforme al sequente standard o altro documento normativo conforme alle

Wij verklaren als enige aansprakelijke, dat het product waarop deze verklaring betrekking heeft,

voldoet aan de volgende norm of ander normatief dokument, overeenkomstig de bepalingen van

Vi erklærer os eneansvarlige for, at dette produkt, som denne deklaration omhandler, er i over-

ensstemmelse med standard eller andre normative dokumenter i følgebestemmelserne i direktiv

Vi deklarerar härmed vårt fulla ansvar för att den produkt till vilken denna deklaration hänvisar är i

överensstämmelse med standarddokument eller annat normativt dokument som framställs i

Ilmoitamme vksinomaisella vastuullamme, että tuote, iota tämä ilmoitus koskee, noudattaa

seuraavaa standardia tai muuta ohjeellista asiakirjaa, jotka noudattavat direktiivin 2004/108/EC

Vi erklærer oss alene ansvarlige for at produktet som denne erklæringen gjelder for, er i overens-

stemmelse med følgende norm eller andre normgivende dokumenter som følger bestemmelsene

Only use attachments/accessories specified by the manufacturer. 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 9) Unplug this apparatus during lightning storms or when unused for long periods of time.

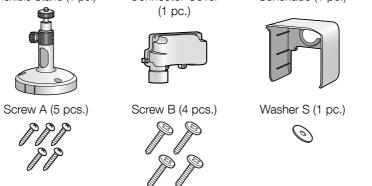
 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate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

Main functions

- Corresponding to outdoor use
- This unit complies with waterproof and is able to install outdoors. (JIS C0920 compliant IP55) H.264 and JPEG triple encoding
- A total of 3 outputs, comprising of 2 H.264 outputs and 1 JPEG output, can be provided. Power over Ethernet function When connecting with a PoE (Power over Ethernet) device, power will be supplied by simply
- connecting a LAN cable. (IEEE802.3af compliant) Adaptive darkness correction mode
- Corrects the blacked-out parts of dark areas of objects that have different illumination intensities. Panning/tilting function and preset position function A single camera provides wide area monitoring
- Interactive communication with audio By using the audio output connector and the microphone in connector, receiving audio from the
- cameras on a PC and transmitting audio from the PC to the cameras is available. ● SDHC/SD memory card slot equipped It is possible to save H.264 videos and JPEG images on the SDHC/SD memory card manually at
- an alarm occurrence, during the period of the schedule, or on a web browser. It is also possible to save JPEG images at a network failure occurrence. (Download is possible.)

Standard accessories

Confirm the following items are included in the camera's packaging Flexible Stand (1 pc.) Connector Cover Sunshade (1 pc.)



(1 pc.)





Installation Guide (this document) Warranty card ..(1 set) CD-ROM*1 . (1 pc.) Code label*2 . (1 pc.)

Washer L (1 pc.)

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*1 The CD-ROM contains the operating instructions and different kinds of tool software programs. *2 This label may be required for network management. The network administrator shall retain the code label.

Precautions for use

This product has no power switch.

der Richtlinie 2004/108/EC.

When turning off the power, disconnect the power supply from the 12 V DC power supply or the PoE device. (When using both the 12 V DC power supply and the PoE device for power supply, disconnect both the connections.

To keep on using with stable performance

Do not use this camera in hot and humid conditions for a long time. Failure to observe this causes component degradation resulting in life shortening of this product. Do not expose this camera to direct heat sources such as a heater.

Do not touch the lens cover with your bare hands. A dirty lens cover causes deterioration of picture quality.

Handle this camera with care.

Do not drop this camera, nor apply shock or vibration to this camera. Failure to observe this may cause trouble.

About the PC monitor

Displaying the same image on a monitor for a long time may damage the monitor. It is recommended to use a screen-saver.

When an error is detected, this product will restart automatically.

This product will be inoperable for around 2 minutes after the restart just as when the power is turned on. Product disposal/transfer

Data saved on this product or a storage device used with this product may lead to personal information leakage. When it is necessary to dispose or give this product to someone, even when

for repair, make sure that there is no data on this product. Cleaning this product body

Be sure to turn off the power before cleaning. Failure to observe this may cause injury. Do not use strong abrasive detergent when cleaning this product. Otherwise, it may cause discoloration. When the dirt is hard to remove, use a damp cloth and wipe the dirty areas. Then, wipe with a dry cloth to remove any moisture.

Transmission interval Image transmission interval may become slow depending on the network environment,

PC performance, shooting subject, access number, etc.

About 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 an unformatted SD memory card or an SD memory card formatted with other devices is used, this product may not work properly or perfor-

mance deterioration may be caused. Refer to the Operating Instructions (included in the CD-ROM) for how to format a SD memory card. • When some SD memory cards are used with this product, the product may not work properly or performance deterioration may be caused. Use the SD memory cards recommended.

Code label The code labels (accessory) are required at inquiry for trouble. Use caution not to lose these labels. It is recommended to paste one of the labels onto the CD-ROM case.

About the MOS image sensor When continuously shooting a bright light source such as a spotlight, the color filter of the MOS

image sensor may have deteriorated and it may cause discoloration. Even when changing the fixed shooting direction after continuously shooting a spotlight for a certain period, the discoloration may remain. • When shooting fast-moving subjects or performing panning/tilting operations, objects crossing

the shooting area may look to be bending askew.

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SEE HTTP://WWW.MPEGLA.COM Flickering

Due to the influence of lighting, flickering may sometimes happen. In this case, select "Indoor scene" for "Light control mode". Select "Indoor scene(50Hz)" or "Indoor scene(60Hz)" in accordance with the power supply frequency in your locality. Refer to the Operating Instructions (included in the CD-ROM) for further information about the setting.

Under extremely strong lighting, flickering may happen even when "Indoor scene" is selected for "Light control mode". When the brightness (illuminance) level on the screen is set to a relatively low level with the [Brightness] buttons, flickering may frequently happen. In such cases, either of the following can reduce flickering.

• Moderate the illumination intensities of objects by changing the camera direction.

• Set the brightness (illuminance) level on the screen to a brighter level with the [Brightness] buttons. White-out on images caused by the effect of light control mode

When "Indoor scene" is selected for "Light control mode", the tone of the brighter parts on the screen may be deteriorated than the case when "ELC" is selected.

Color blurring on detailed drawing patterns When there are detailed drawing patterns on images, color blurring may happen over these parts. Consumable parts

The following are consumables: Replace them in accordance with their lives. Their lives vary depending on use environment and conditions. Lifetime is just an indication when using the camera at +20 °C {68 °F}.

• Panning motor, tilting motor, flat cable for tilting: Approx. 3.7 million operations.

Lens and pan/tilt head

If a lens and pan/tilt head are not performed for a long period of time, the grease coating inside these parts may become sticky. That may obstruct the parts from moving. To prevent this, move the lens or pan/tilt head periodically.

Precautions for Installation

Panasonic assumes no responsibility for injuries or property damage resulting from failures arising out of improper installation or operation inconsistent with this documentation.

Installation area for this product

- Select an appropriate place for the installation area (such as a strong wall or ceiling) in your par-
- Avoid installing the camera in locations where it can be exposed to direct sunlight or rain from all directions. Install the camera in an appropriate location such as on an exterior wall of a building.

Do not place this product in the following places:

- Locations where a chemical agent is used such as a swimming pool Locations subject to humidity, dust, steam and oil smoke
- Locations that have a specific environment that is subject to an inflammable atmosphere or solvents Locations where a radiation, an X-ray, a strong radio wave or a strong magnetic field is generated
- Locations where corrosive gas is produced, Locations where it may be damaged by briny air such as seashores
- Locations where the temperature is not within the specified range (-20°C to +50°C $\{-4^{\circ}F \text{ to } +122^{\circ}F\}$ • Locations subject to vibrations (This product is not designed for on-vehicle use.)
- Locations subject to condensation as the result of severe changes in temperature

Be sure to remove this product if it is not in use.

Before installation

 When this camera is mounted on a wooden ceiling or a wall, use the wood screws (accessory, Screw B). Screws to be used for other materials are not provided. Prepare the screws according to the material, structure, strength and other factors of the mounting area and the total weight of objects to be mounted.

Ensure that the mounting surface, anchor and screws are sufficiently strong.

Do not mount this product on a plaster board or a wooden section because they are too weak. If

this product is unavoidably mounted on such a section, the section shall be sufficiently reinforced.

Design and engineer the power supply system to turn on/off the power of this product. The product has no power switch. When installing the product, use a power supply device equipped with the ON-OFF switch for servicing.

About the network connection

When connecting to a network using the network cable of this product, observe the following. When wiring for the network, design and engineer not to be affected by thunder.

Screw tightening

• The screws and bolts must be tightened with an appropriate tightening torque according to the material and strength of the installation area. • Do not use an impact driver. Use of an impact driver may damage the screws or cause tighten-

ing excessively. • When a screw is tightened, make the screw at a right angle to the surface. After tightening the

screws or bolts, perform visual check to ensure tightening is enough and there is no backlash. Procure fixing screws that are not made to be used with wooden surfaces separately.

The fixing screws supplied with this product are only for use with wooden surfaces.

Required pull-out capacity of a single screw/bolt is 294 N {66.09 lbf} or more. Fall prevention measures

When the external safety wire is connected, select a connection point resulting in that nothing will hit people after the stand is damaged.

Do not remove or loosen the internal camera screws. Do not loosen the internal camera screws. Otherwise, water exposure may cause damage or mal-

function of camera, or camera dropping may result in injury.

When this product is used near TV/radio antenna, strong electric field or magnetic field (near a motor, a transformer or a power line), images may be distorted and noise sound may be produced.

PoE (Power over Ethernet)

Use a PoE hub/device that is compliant with IEEE802.3af standard.

When connecting this product to the Internet, use a broadband router with the port forwarding function (NAT, IP masquerade). Refer to the Operating Instructions (included in the CD-ROM) for fur-

ther information about the port forwarding function. Time & date setting

It is necessary to set the time & date before putting this product into operation. Refer to the Operating Instructions on the provided CD-ROM for descriptions of how to perform the settings.

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 in the table or a problem is not described below. Cause/solution Symptom

Power is not turned on.

• Are the PoE device and the network cable of the camera connected using a LAN cable? → Check whether the connection is appropriately established. Depending on the PoE device, the power supply will stop

when the demanded power exceeds its total power limit for all PoE ports. → Refer to the operating instructions of the PoE device in use.

• For further information about PC system requirements and precautions for when using

Option

a LAN cable (CAT-5 straight cable)

SOURCE (IEC/EN/UL/CSA 60950-1).

[Locally procured]

AC Adaptor (1 pc.)

configure the network

to operate this camera.

Adobe web site and install it.

THE THIRD PARTY'S RIGHT.

INCLUDING BUT NOT LIMITED TO BELOW:

OPERATION OF THE USER;

MALFUNCTION OR TROUBLE;

CPU:

Memory:

Monitor:

Others:

OS:

Network interface:

Web browser:

indicates the WV-SW175, WV-SW172.

English screens are used in these operating instructions.

Limitation of liability

Disclaimer of warranty

a router

You will need the following additional items to install and configure the camera.

* ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER

• Installation Guide: Explains how to install and connect devices, as well as how to connect and

Adobe® Reader® is required to read these operating instructions on the provided CD-ROM.

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(2) PERSONAL INJURY OR ANY DAMAGE CAUSED BY INAPPROPRIATE USE OR NEGLIGENT

(3) ALL MALFUNCTIONS OR TROUBLES FROM UNAUTHORIZED DISASSEMBLE, REPAIR OR

(4) INCONVENIENCE OR ANY LOSS ARISING WHEN IMAGES ARE NOT DISPLAYED, DUE TO

ANY REASON OR CAUSE INCLUDING ANY FAILURE OR PROBLEM OF THE PRODUCT;

ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING

(6) ANY CLAIM OR ACTION FOR DAMAGES, BROUGHT BY ANY PERSON OR ORGANIZATION

THAT SURVEILLANCE-CAMERA'S PICTURE, INCLUDING SAVED DATA, FOR SOME

System requirements for a PC

10BASE-T/100BASE-TX 1 port

Color: 24-bit True color or better

Microsoft® Windows® 7

CD-ROM drive

Adobe® Reader®

Microsoft® Windows Vista®

the provided CD-ROM.)

DirectX® 9.0c or later

become slower or the web browser may become inoperable

Professional 64-bit Edition are not supported.

Microsoft® Windows® XP SP3

BEING A PHOTOGENIC SUBJECT, DUE TO VIOLATION OF PRIVACY WITH THE RESULT OF

Intel[®] Core[™] 2 Duo 2.4 GHz or faster recommended

Microsoft® Windows® 7 or Microsoft® Windows Vista®.)

(It is necessary to view PDF file on the provided CD-ROM.)

When using a PC that does not meet the above requirements, displaying of images may

• Microsoft Windows 7 Starter, Microsoft Windows Vista Starter and Microsoft Windows XP

When using IPv6 for communication, use Microsoft Windows7 or Microsoft Windows Vista.

Image capture size: 1024 x768 pixels or more

Windows® Internet Explorer® 9.0 (32-bit)

Windows® Internet Explorer® 8.0 (32-bit)

Windows® Internet Explorer® 7.0 (32-bit)

Microsoft® Internet Explorer® 6.0 SP3

512 MB or more (A minimum of 1 GB memory is required when using

sary to read the operating instructions and use the software on

OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY;

REASON, BECOMES PUBLIC OR IS USED FOR ANY PURPOSE;

(7) LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE.

MODIFICATION OF THE PRODUCT BY THE USER, REGARDLESS OF THE CAUSE OF THE

ERRORS. CHANGES ARE ADDED TO THE INFORMATION HEREIN, AT ANY TIME, FOR THE

MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF

• Operating Instructions (included in the CD-ROM): Explains how to perform the settings and how

When the Adobe® Reader® is not installed on the PC, download the latest Adobe Reader from the

"SW175, SW172" shown in the instructions and illustrations used in these operating instructions

• a PC (see the system requirements in the Important Information document)

About the user manuals

There are 2 sets of operating instructions for the WV-SW175, WV-SW172 as follows.

PoE device (When supplying the power using the PoE device)

- Microsoft Windows 7, Microsoft Windows Vista, or Windows Internet Explorer, click "Manual" - "Open" from the supplied CD-ROM and refer to "Notes on Windows® / Internet Explorer® versions" • If using Microsoft Windows XP, screen tearing* may occur when the shooting scene drastically
- changes (for example, while shooting fast-moving subjects) due to the GDI restrictions of the OS. * A phenomenon in which portions of the screen are displayed out of alignment. For information on the operation verification of the supported operating systems and web
- browsers, refer to our website

(http://security.panasonic.com/pss/security/support/index.html).

Specifications

● Basic	
Power source:	PoE (IEEE802.3af compliant), 12 V DC
Power consumption:	PoE: 130 mA (Class 2 device), 12 V DC: 430 mA
Ambient operating temperature:	-20 °C to +50 °C {-4 °F to +122 °F}
Ambient operating humidity:	Less than 90 % (no condensation)
Monitor output:	VBS: 1.0 V [p-p]/75 Ω , composite (BNC), ø3.5 mm mini jack
EXT I/O terminal cable:	ALARM IN 1, ALARM IN 2/ ALARM OUT, ALARM IN 3/ AUX OUT, GND, 12 V DC
Microphone/Line input:	ø3.5 mm monaural mini jack Input impedance: Approx. 2.2 k Ω
For microphone input	Applicable microphone: Plug-in power type Supply voltage: 3.3 V +0.5 V

Supply voltage: 3.3 V ±0.5 V For line input Input level: Approx. –10 dBV ø3.5 mm stereo mini jack (monaural output) Audio output: Output impedance: Approx. 560 Ω Line level Dustproof/ Waterproof: formed and appropriate waterproof treatment is performed

* Only when installation work specified in this book is properly per-100 mm (W) x 100 mm (H) x 74 mm (D) {3-15/16 inches (W) x Dimensions: 3-15/16 inches (H) x 2-29/32 inches (D)} (excluding projection) Mass: Main body: 350 g {0.77 lbs} Finish: Main body : PC/ABS resin, silver Dome section: Clear polycarbonate resin Camera Image sensor: 1/4 type MOS image sensor Effective pixels: Approx. 1.3 megapixels 3.52 mm (H) × 2.64 mm (V) {1/8 inches (H) x 3/32 inches (V)} Scanning area: Scanning system: Progressive

Minimum illumination: Color: 0.6 lx {0.06 footcandle} (F2.2, Auto slow shutter: Off (1/30 s), Gain: On (High)) 0.038 lx {0.0038 footcandle} (F2.2, Auto slow shutter: max. 16/30 s, Gain: On (High))* BW: 0.5 lx {0.05 footcandle} (F2.2, Auto slow shutter: Off (1/30 s), Gain: On (High)) 0.031 lx {0.0031 footcandle} (F2.2, Auto slow shutter: max. 16/30 s, Gain: On (High))* * Converted value Wide dynamic range: On/Off Face WDR: On/Off Gain (AGC): On (Low)/ On (Mid)/ On (High)/ Off Adaptive black stretch: ELC(1/30 s), ELC(3/100 s), ELC(3/120 s), ELC(2/100 s), ELC(2/120 s),

Light control mode setting: Indoor scene (50Hz/60Hz)/ELC (Maximum exposure time): ELC(1/100 s), ELC(1/120 s), ELC(1/250 s), ELC(1/500 s), ELC(1/1000 s), ELC(1/2000 s), ELC(1/4000 s), ELC(1/10000 s) Off (1/30 s), Max. 2/30s, Max. 4/30s, Max. 6/30s, Max. 10/30s, Auto slow shutter: Max. 16/30s Day & Night (electrical): Off/Auto White balance: ATW1/ ATW2/ AWC Digital noise reduction: High/Low Video analytics On/Off (with the XML notification setting) Face detection*: Privacy zone: On/Off (up to 2 zones available) Camera title on screen: Up to 20 characters (alphanumeric characters, marks), On/Off

* To use the "XML notification" and "Face detection" functions, you need to install the extension software. Lens

Video motion detection (VMD alarm): On/Off, (available at each preset)

Extra zoom: 2x (under VGA resolution) Zoom ratio: 8x (Max 16x combined with Extra Zoom under VGA) Digital (electronic) zoom: 1.95 mm Focal length: 1: 2.2 Maximum aperture ratio: Focus range: ∞ - 0.5 m Angular field of view: Horizontal: 85°, Vertical: 68°

Panning/tilting platform

Map shot:

Self return:

-47.5°- +47.5° Panning range: Manual: Approx. 5 °/s - 80 °/s, Preset: Up to approx. 80 °/s Panning speed: Tilting range: Tilting speed: Manual: Approx. 5 °/s - 80 °/s, Preset: Up to approx. 80 °/s Number of the preset positions: 64

10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min

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Network security

As you will use this unit connected to a network, your attention is called to the following security risks. ① Leakage or theft of information through this unit ② Use of this unit for illegal operations by persons with malicious intent

3 Interference with or stoppage of this unit 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 unit in a network secured by a firewall, etc. If this unit 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 After the unit is accessed by the administrator, make sure to close the browser.

 Change the administrator password periodically. • Do not install the camera in locations where the camera or the cables can be destroyed or damaged by persons with malicious intent.

Precautions

Periodic inspections shall be conducted.

! WARNING

- Refer installation work to the dealer.
- Installation work requires technique and experiences. Failure to observe this may cause fire, electric shock, injury, or damage to the product.
- Be sure to consult the dealer. • Stop the operation immediately when something is wrong with this product. When smoke goes up from the product, the smell of smoke comes from the product, or the exterior of the product has deteriorated, continued use will cause a fire or fall of the product
- resulting in injury, or damage to the product. • Turn the power off immediately and contact qualified service personnel for service. Select an installation area that can support the total weight.
- Selecting an inappropriate installation surface may cause this product to fall down or topple over, resulting in injury. • Installation work shall be started after sufficient reinforcement.
- Consult the dealer for the inspections. • The screws and bolts must be tightened to the specified torque. Failure to observe this may cause a drop resulting in injury or accidents.
- Do not install this product in locations subject to vibration. Loosening of mounting screws or bolts may cause a fall of the product resulting in injury. • The measures of protection against a fall of this product shall be taken. Failure to observe this may cause a drop resulting in injury or accidents. Be sure to install the safety wire.

• Install this product in a location high enough to avoid people and objects from

Rust on the metal parts or screws may cause a fall of the product resulting in injury or accidents.

- bumping the product. Failure to observe this may cause a drop resulting in injury or accidents. • Turn the power off when do wiring of this product. Failure to observe this may cause electric shock. In addition, short circuit or wrong wiring may cause fire.
- Do not attempt to disassemble or modify this product. Failure to observe this may cause fire or electric shock. Consult the dealer for the repair or Do not insert any foreign objects.

This could permanently damage this product. Turn the power off immediately and contact

- qualified service personnel for service • Do not use this product in an inflammable atmosphere. Failure to observe this may cause an explosion resulting in injury.
- Avoid installing this product in the locations where salt damage occurs or corrosive gas is produced. Otherwise, the mounting portions will deteriorate and accidents such as a fall of the product may occur.

• Do not touch this product or the connected cables during thunder (even in the

- Do not strike or give a strong shock to this product. Failure to observe this may cause fire or injury. Do not rub the edges of metal parts with your hand. Failure to observe this may cause injury.
- process of work). Failure to observe this may cause electric shock. • Keep SDHC/SD memory cards (option) away from infants and children.

⚠ CAUTION

• Turn the power off when cleaning this product. Failure to observe this may cause injury.

• In this case, consult a doctor immediately.

Otherwise, they may swallow the cards by mistake.

Network Network:

10BASE-T/100BASE-TX, RJ45 connector WV-SW175: Resolution: Imaging mode: 4:3 H.264 1280x960/ VGA (640x480)/ QVGA (320x240) max.30 fps JPEG 1280x960/ VGA (640x480)/ QVGA (320x240) max.30 fps Imaging mode: 16:9 H.264 1280x720/ 640x360/ 320x180 max.30 fps JPEG 1280x720/640x360/320x180 max.30 fps WV-SW172: Aspect ratio: 4:3 H.264 SVGA(800x600)/ VGA(640x480)/ QVGA(320x240) max. 30 fps JPEG SVGA(800x600)/ VGA(640x480)/ QVGA(320x240) max. 30 fps Aspect ratio: 16:9 H.264 640x360/320x180, max. 30 fps

JPEG 640x360/320x180, max. 30 fps Image compression H.264 Image quality: Low/ Normal/ Fine method: Transmission type: Unicast/Multicast Constant bit rate/ Best effort/ Advanced VBR: 64 kbps/ 128 kbps/ 256 kbps/ 384 kbps/ 512 kbps/

Transmission interval:

Maximum concurrent

access number

Protocol:

768 kbps/ 1024 kbps/ 1536 kbps/ 2048 kbps/ 3072 kbps/ 4096 kbps/ 8192 kbps Frame rate: 1 fps/ 3 fps/ 5 fps/ 7.5 fps/ 10 fps/ 12 fps/ 15 fps/ 20 fps/

Image quality: 0 SUPER FINE/ 1 FINE/ 2/ 3/ 4/ 5 NORMAL/ 6/7/8/9 LOW (10 steps: 0-9)

0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying

Transmission type: PULL/PUSH

both JPEG and H.264/ images.) Audio compression G.726 (ADPCM) 32 kbps/ 16 kbps G.711 64 kbps method: Unlimited/ 64 kbps/ 128 kbps/ 256 kbps/ 384 kbps/ 512 kbps/ Bandwidth control:

> 768 kbps/ 1024 kbps/ 2048 kbps/ 4096 kbps/ 8192 kbps IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP

FTP client: Alarm image transmission, FTP periodic transmission Multi-screen: Up to 16 camera images can be displayed simultaneously on a multiscreen. (Including the camera itself) Compatible SDHC/ Manufactured by Panasonic (SD speed class 4 or higher) SD memory card (option): SDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB SD memory card: 256 MB, 512 MB, 1 GB, 2 GB

14 (Depends on network conditions)

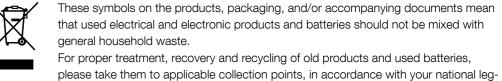
(except miniSD card and microSD card)

Cellular phone JPEG image, panning/tilting/zoom control, AUX control (by access compatibility: Mobile terminal compatibility: iPad, iPhone, iPod touch (iOS 4.2.1 or later)

(As of October, 2013) *2 Android[™] mobile terminals *1 Transmission for 2 streams can be individually set in the same compression method. *2 For further information about compatible devices, refer to our website

(http://security.panasonic.com/pss/security/support/info.html). Optional accessories User License Accessory (For H.264) BB-HCA8A BB-HCA8CE

Information for Users on Collection and Disposal of Old Equipment and used Batteries

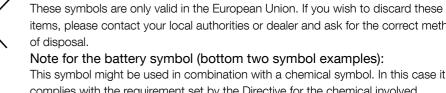


islation and the Directives 2002/96/EC and 2006/66/EC By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale

where you purchased the items. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

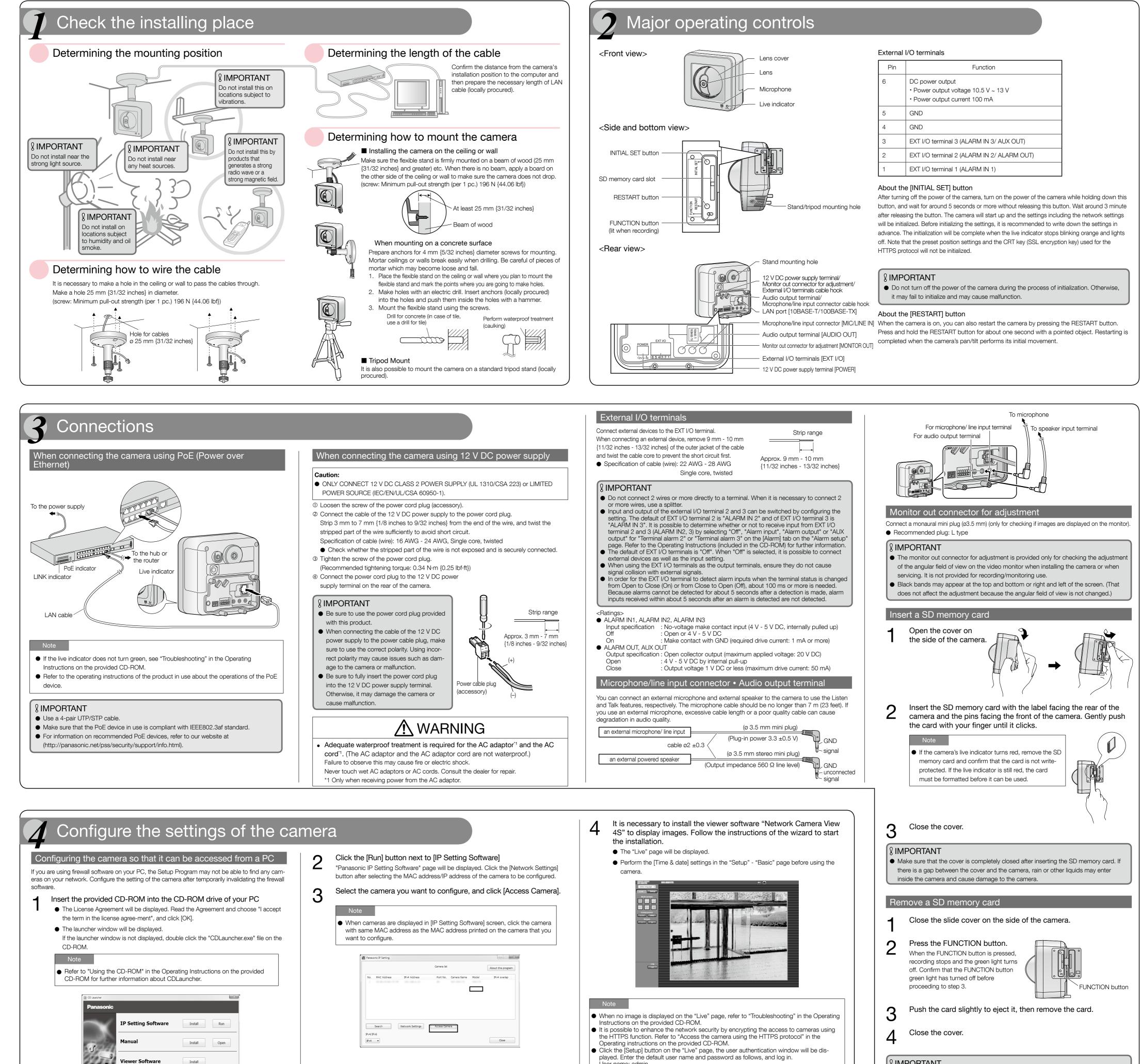


For business users in the European Union If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information. [Information on Disposal in other Countries outside the European Union]



items, please contact your local authorities or dealer and ask for the correct method Note for the battery symbol (bottom two symbol examples): This symbol might be used in combination with a chemical symbol. In this case it

complies with the requirement set by the Directive for the chemical involved.





User name: admin Password: 12345

 Make sure that SD memory card recording has stopped and that the card is not being accessed before removing the card. (The FUNCTION button will light while images are being recorded to the card.) We recommend pressing the FUNCTION button to stop SD memory card recording before ejecting the card.

• If the SD memory card is removed while it is being recorded to or accessed, the card may become unreadable and may need to be formatted (i.e., erased) again before

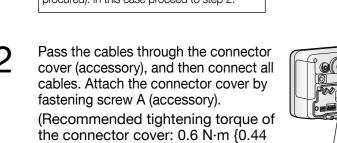
• Make sure that the cover is completely closed after removing the SD memory card. If there is a gap between the cover and the camera, rain or other liquids may enter inside the camera and cause damage to the camera.

Mounting the Camera

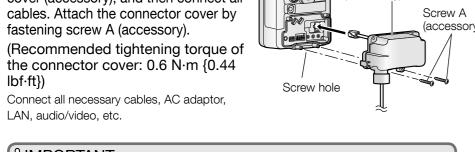
• Refer to "Mounting the Camera" (leaflet) for descriptions of how to mount the camera outdoors in the fields of U.S. and Canada.

Remove the tab on the flexible stand (accessory). Then pass the cables through the notch.

the tab on the When passing all cables through a duct (locally flexible stand procured) for waterproofing without removing the tab, wrap the cables to the shaft of the stand with tape or other materials (locally procured). In this case proceed to step 2.

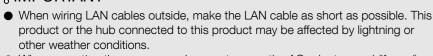


lbf·ft}) Connect all necessary cables, AC adaptor,

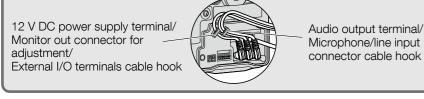


Connector cover

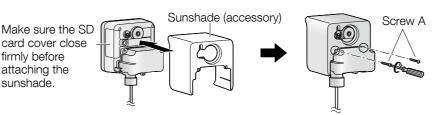
(accessory



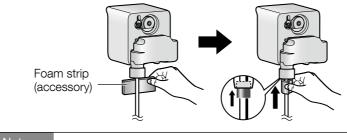
• When mounting the camera, make sure to wrap the AC adaptor cord (if used) and other cables (external microphone or speaker cable, video cable, etc.) around the hooks as shown to ensure secure connections.



Attach the sunshade (accessory) by fastening screw A. (Recommended tightening torque of the sunshade: 0.6 N·m {0.44 lbf·ft})

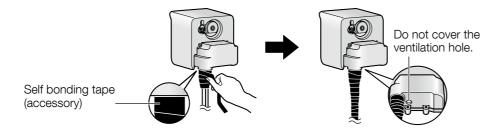


Wrap the cables in the included foam strip (accessory) and insert the foam strip into the opening of the connector cover leaving about 10 mm (3/8 inches) of the foam exposed, as shown.



Adequate waterproof treatment is required for the cables when installing the camera outdoors. Failure to observe this may cause water leakage resulting in malfunction.

Wrap the first 20 cm (7 7/8 inches) of the cables (starting with the connector cover) using the included self bonding tape (accessory). Make sure to wrap the opening of the connector cover thoroughly (three or four times). Stretch the tape to twice its length when you wrap the cables. Overlap the tape when you wrap the cables. When mounting the camera on a tripod, make sure to wrap the self bonding tape (locally procured) around the cables until a suitable height according to the height of the tripod.



Adjust the camera to a suitable position/direction while confirming the images actually displayed on the computer screen.

Make sure the live indicator is always in the lower right corner when you mount.

At least 25 mm

{31/32 inches}

Beam of wood

Washer S (accessory)

Screw A

wire (accessory)

Place the flexible stand on the ceiling or wall, and determine the mounting position of the stand.

Installing the camera on the ceiling or wall

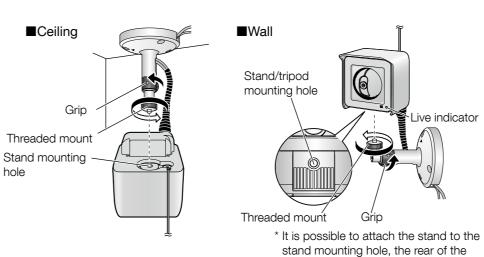
Make sure the flexible stand is firmly mounted on a beam of wood (25 mm {31/32 inches} and greater) etc. When there is no beam, apply a board on the other side of the ceiling or wall to

(Minimum pull-out strength (per 1 pc.) 196 N {44.06 lbf}) Secure the safety wire (accessory) to § the camera using screw A (accessory) and washer S

make sure the camera does not drop.

(accessory). (Recommended tightening torque: 0.6 N·m {0.44 lbf·ft})

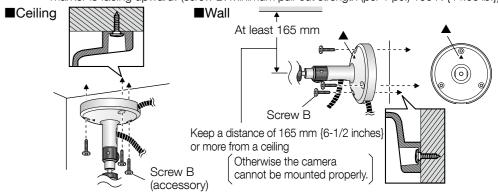
Attach the camera by screwing the threaded mount into the stand mounting hole.



camera.

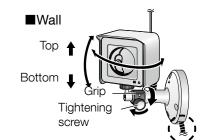
Mount the flexible stand firmly to the ceiling or wall with screw B (accessory)

When mounting the flexible stand to the wall, position the flexible stand so that the "A" marker is facing upward. (screw B: Minimum pull-out strength (per 1 pc.) 196 N {44.06 lbf}) ■Wall At least 165 mm



Adjust the camera position and tighten the flexible stand grip and the tightening screw firmly. The fixing position of the tightening screw can be adjusted according to the direction





: Confirm that the cords have been waterproofed and that the portion of the cord protruding from the flexible stand is wrapped in self bonding tape, as shown. Adjust the length of the safety wire when it is taut, and secure it to the

ceiling or wall using screw B (accessory) and washer L (accessory). Attach the safety wire in a position so that if the camera were to become detached, it would not fall on nearby people. (screw B: Minimum pull-out strength (per 1 pc.) 196 N {44.06 lbf}) ■Ceiling Make sure to waterproof the opening of ■Wall the duct so that water does not enter it.

