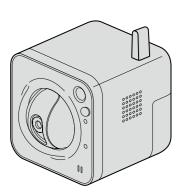
Panasonic

Installation Guide

Network Camera

Model No. BL-VT164W/BL-VT164WE BL-VT164WU BL-VT164/BL-VT164E BL-VT164U



(This illustration represents BL-VT164W.)

For U.S. and Canada: For Europe and other countries: Panasonic System Communications

Panasonic Corporation http://panasonic.net

Importer's name and address to follow EU rules:

Panasonic Testing Centre Three Panasonic Way, Secaucus, New Jersey 07094 U.S.A. Panasonic Marketing Europe GmbH Winsbergring 15, 22525 Hamburg F.R.Germany 5770 Ambler Drive, Mississauga, Ontario, L4W 2T3 Canada

www.panasonic.ca Cs0212-0 PGQX1155ZA © Panasonic System Networks Co., Ltd. 2012 Printed in China

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.

Company of North America,

www.panasonic.com/business/

Panasonic Canada Inc.

(905)624-5010

Unit of Panasonic Corporation of North America

For customer support, call 1.800.528.6747

- To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture. To prevent injury, this apparatus must be securely attached to the floor/wall/ceiling in accordance with the installation instructions.
- The mains plug or an appliance coupler shall remain readily operable. • 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.

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/

For U.S.: BL-VT164W For U.S. and Canada: BL-VT164 For Europe and other countries: BL-VT164WE, BL-VT164WU, BL-VT164E, BL-VT164U

UL listed model No. BL-VT164W, BL-VT164

For Canada This Class B digital apparatus complies with Canadian ICES-003.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the

interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is

- Consult the dealer or an experienced radio/TV technician for help. This device complies with part 15 of the FCC Rules. Operation is subject to the following two

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

For BL-VT164W/BL-VT164WE/BL-VT164WU Operating near 2.4 GHz electrical appliances may cause interference. Move away from the electrical appliances

This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm {8 inches} spacing must be provided between antenna and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation. - This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

MEDICAL: Consult the manufacturer of any personal medical devices, such as pacemakers, to determine if

they are adequately shielded from external RF (radio frequency) energy. (The unit operates in the frequency range of 2.412 GHz to 2.462 GHz (BL-VT164W), 2.412 GHz to 2.472 GHz (BL-VT164WE/BL-VT164WU).) Do not use the unit in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF (radio frequency) energy.

For U.S.A 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.

For European Union (EU) (BL-VT164E/BL-VT164U) We declare under our sole responsibility that the product to which this declaration relates is in conformity with the standards or other normative documents following the provisions of Directives 2006/95/EC and 2004/108/EC.

Wir erklären in alleiniger Verantwortung, daß das Produkt, auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt. Gemäß den Bestimmungen der Richtlinie 2006/95/EC und 2004/108/EC.

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posizioni delle direttive 2006/95/CE e 2004/108/CE. Wij verklaren als enige aansprakelijke, dat het product waarop deze verklaring betrekking heeft, voldoet aan de volgende normen of andere normatieve documenten, overeenkomstig de bepal-

ingen van Richtlijnen 2006/95/EC en 2004/108/EC. Vi erklærer os eneansvarlige for, at dette produkt, som denne deklaration omhandler, er i overensstemmelse med standarder eller andre normative dokumenter i følge bestemmelserne i direktivene 2006/95/EC og 2004/108/EC.

Vi deklarerar härmed vårt fulla ansvar för att den produkt till vilken denna deklaration hänvisar är i överensstämmelse med de standarder eller andra normativa dokument som framställs i direktiv nr 2006/95/EC och 2004/108/EC. Ilmoitamme yksinomaisella vastuullamme, että tuote, jota tämä ilmoitus koskee, noudattaa

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For European Union (EU) (BL-VT164WE/BL-VT164WU) Panasonic System Networks Co., Ltd., declares that this equipment is in compliance with the essential requirements and other relevant provisions of Radio & Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC.

Declarations of Conformity for the relevant Panasonic products described in this manual are available for download by visiting:

http://www.doc.panasonic.de Contact:

Panasonic Services Europe a Division of Panasonic Marketing Europe GmbH Panasonic Testing Centre

Winsbergring 15, 22525 Hamgurg, F.R. Germany

C€17310

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Precautions Precautions for use

! 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

• Installation work shall be started after sufficient reinforcement.

Periodic inspections shall be conducted.

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

Make sure that the screws and bolts are tightened firmly. • 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 bumping the product.

Failure to observe this may cause a drop resulting in injury or accidents. • 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 inspections

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

process of work).

Failure to observe this may cause electric shock.

 Fully insert the AC cord plug into the power outlet. Do not use damaged plugs or unstable power outlets

Failure to observe this may cause electric shock or heat generation resulting in a fire. When disconnecting or connecting the AC adaptor, do not hold the metal parts

of the plug. Failure to observe this may cause electric shock.

 Periodically remove dust or other materials from the AC adaptor and its plug part. Disconnect the AC adaptor and wipe the AC adaptor and its plug part with a dry cloth to remove dust. A fire may be caused if dust or other materials accumulate on the plug part of the AC adaptor and become moist from humidity.

 Use only a dedicated AC cord plug (polarized type). If other AC cord plugs are used, the voltage and positive/negative polarities may differ and this

may cause fire or electric shock

• Do not insert/remove the AC cord plug with wet hands. Failure to observe this may cause electric shock

 Do not overload the power outlet or wiring above the specified levels. Overloading by having many connections on one power outlet may cause heat generation

 Do not damage the AC cord or AC cord plug. Do not damage, fabricate, twist, stretch, bundle, or forcibly bend the power cable or AC cord plug. Do not place heavy objects on the power cable or AC cord plug. Keep the power cable

may cause electric shock, short circuit, or fire. Consult the dealer for repair. • Unplug this unit from power supply if it emits smoke, an abnormal smell or makes unusual noise, has been dropped or is damaged in any way.

and AC cord plug away from heat sources. Using a damaged power cable or AC cord plug

These conditions can cause fire or electric shock. Stop using the unit and contact an authorized service center • Do not damage internal wiring or plumbing when opening holes in ceiling or

walls for installation or wiring, fixing AC cords, extension cords, or LAN cables, etc. or performing any other installations. Failure to observe this may cause earth leakage, electric shock, or fire. • Perform all electrical wiring in accordance with the relevant electrical

installation and wiring precautions and regulations. Incorrect electrical wiring may cause fire or electrical shock. Have all electrical wiring perform by a licensed electrician. Do not place containers or other objects that contain water or other liquids on

Fire or electrical shock may be caused if water or other liquids enter inside the unit. If water or other liquids enter inside the unit, immediately disconnect the AC cord and contact an authorized service center. • Do not use AC cords from other products.

Failure to observe this may cause fire or electric shock.



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

 Disconnect the AC cord when not using the unit for extended periods of time or when performing maintenance. Failure to observe this may cause an earth leakage or electric shock.

This system is designed to be used indoors. This product is not operable outdoors. This product has no power switch.

When turning off the power, disconnect the power supply from AC adaptor. 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

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 using a chemical cloth for cleaning, read the caution provided with the chemical cloth product.

Transmission interval

Image transmission interval may become slow depending on the network environment, PC performance, shooting subject, access number, etc. About the CMOS image sensor

• When continuously shooting a bright light source such as a spotlight, the color filter of the CMOS 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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Flickering

lowing can reduce flickering.

Due to the influence of lighting, flickering may sometimes happen. Select "Indoor scene(50 Hz)" or "Indoor scene(60 Hz)" 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 fol-

• 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] but-

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. 0.12 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.

Specifications

Basic 9 V DC (Use only with Panasonic AC adapter) Power source: Power consumption: BL-VT164W/BL-VT164WE/BL-VT164WU: max 4.8 W BL-VT164/BL-VT164E/BL-VT164U: max 3.7 W Ambient operating temperature: 0 °C to +40 °C {32 °F to 104 °F} Ambient operating humidity: less than 90 % (No condensation) ALARM IN 1, ALARM IN 2/ ALARM OUT, ALARM IN 3/ AUX OUT, GND External I/O terminals: Microphone/line input: Internal microphone

Important safety instructions

1) Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water. Clean only with dry cloth.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. 8) Protect the power cord from being walked on or pinched particularly at plugs, convenience

receptacles, and the point where they exit from the apparatus. Only use attachments/accessories specified by the manufacturer.

10) Unplug this apparatus during lightning storms or when unused for long periods of time. 11) 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

H.264 and JPEG triple encoding

A total of 3 outputs, comprising of 2 H.264 outputs and 1 JPEG output, can be provided. Adaptive darkness correction mode

 Panning/tilting function and preset position function A single camera provides wide area monitoring. Audio features

Corrects the blacked-out parts of dark areas of objects that have different illumination intensities.

The camera features a built-in microphone that allows you to monitor the audio while viewing live camera images using your PC.

 Built-in Body Heat Sensor (Pyroelectric infrared sensor) The camera features a built-in Body Heat Sensor (Pyroelectric infrared sensor), which uses infrared rays to detect temperature differences within its range that are emitted naturally by people, animals, etc. The sensor can also be used to trigger the camera to transfer images to someone or somewhere, by FTP, E-mail, or HTTP.

Wireless LAN function (IEEE802.11 n/g/b) (BL-VT164W/BL-VT164WE/BL-VT164WU) It is possible to monitor camera images and configure camera settings over a wireless network.

• WPS (Wi-Fi Protected Setup) function (BL-VT164W/BL-VT164WE/BL-VT164WU) WPS enables the camera to automatically obtain the connection configuration information and the security configuration information of the wireless router. WPS can be configured by pressing the WIRELESS button (WPS button) (PBC method) or entering an 8 digit pin code (Pin code method).

Standard accessories

Washer L (1 pc.)

Confirm the following items are included in the camera's packaging.

Screw A (1 pc.) Screw B (1 pc.)

Screw C (2 pcs.)

Safety Wire (1 pc.)

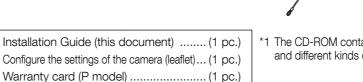


Washer S (2 pcs.)

0

AC Adaptor (1 pc.)







Option

Warranty card (P model)

Washer M (1 pc.)

You will need the following additional items to install and configure the camera. [Locally procured]

... (1 pc.)

a PC (used to view settings and images)

BL-VT164E, BL-VT164U.

CD-ROM*1 ...

• a LAN cable (CAT-5 straight cable)

a router/ a wireless router (when using the wireless function)

System requirements for a PC

Refer to "Configure the settings of the camera" (leaflet) for information about the system requirements for a PC.

About the user manuals

The screens used in these operating instructions show the cases of P models.

There are 3 sets of operating instructions for the BL-VT164W/BL-VT164 (P model), BL-VT164WE/ BL-VT164E (E model), BL-VT164WU/BL-VT164U (U model) as follows.

• Installation Guide: Explains how to install and connect devices. Configure the settings of the camera (leaflet): Explains how to configure the network. • Operating Instructions (included in the CD-ROM): Explains how to perform the settings and how to operate this camera.

When the Adobe Reader is not installed on the PC, download the latest Adobe Reader from the Adobe web site and install it. "BL-VT164W, BL-VT164" or "VT164W, VT164" shown in the instructions and illustrations used in these operating instructions indicates the BL-VT164W, BL-VT164WE, BL-VT164WU, BL-VT164,

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

Audio output: Internal speaker Dimensions 74 mm (W) x 74 mm (H) x 91 mm (D) {2-29/32 inches (W) x 2-29/32 inches (H) x 3-19/32 inches (D)} (excluding projection) BL-VT164W/BL-VT164WE/BL-VT164WU: Approx. 230 g {0.5071 lbs} Mass:

	BL-VT164/BL-VT164E/BL-VT164U:	Approx. 220 g {0.485 lb
Finish:		
● Camera		
Image sensor:	1/4 type CMOS image sensor	
Effective pixels:	Approx. 1 megapixels	
Scanning area:	3.89 mm (H) × 2.43 mm (V) {5/32 inches	(H) × 3/32 inches (V)}

3.89 mm (H) \times 2.43 mm (V) {5/32 inches (H) \times 3/32 inches (V)} Scanning system Progressive Color: 0.9 lx {0.09 footcandle} (F2.8, Auto slow shutter: Off (1/30 s), Minimum illumination: Gain: On (High)) 0.06 lx {0.006 footcandle} (F2.8, Auto slow shutter: max. 16/30 s, Gain: On (High))* BW: 0.6 lx {0.06 footcandle} (F2.8, Auto slow shutter: Off (1/30 s),

Gain: On (High)) 0.04 lx {0.004 footcandle} (F2.8, Auto slow shutter: max. 16/30 s, Gain: On (High))* * Converted value Face WDR: On/Off Gain (AGC): On(Low)/ On(Mid)/ On(High)/ Off Adaptive black stretch: On/Off Indoor scene (50 Hz/ 60 Hz)/ ELC Light control mode setting: ELC ELC(1/30 s), ELC(3/100 s), ELC(3/120 s), ELC(2/100 s), ELC(2/120 s), (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. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Auto slow shutter:

Max. 16/30 s Off/Auto Simple black & white mode: ATW1/ ATW2/ AWC White balance: Digital noise reduction: High/Low On/Off (with the XML notification setting) Video analytics Face detection: On/Off (up to 2 zones available) Privacy zone: Camera title on screen:

Up to 20 characters (alphanumeric characters, marks), On/Off

Manual: Approx. 0.5 °/s - 50 °/s, Preset: Up to approx. 50 °/s

(VMD alarm): Lens

∞ ~ 0.4 m

Digital (electronic) zoom: 8x (Max 12x combined with Extra Zoom at VGA) Focal length: 3.6 mm 1:2.8 Maximum aperture ratio:

Zoom ratio:

Focus range:

Tilting speed:

Angular field of view: Horizontal: 57°, Vertical: 34° Panning/tilting platform Panning range: -41° - +41° Manual: Approx. 0.5 °/s - 50 °/s, Preset: Up to approx. 50 °/s Panning speed: Tilting range:

Extra zoom: 1.5x (at VGA resolution)

Number of the preset positions: 64 Map shot: Preset map-shot Self return: 10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min

Wireless (BL-VT164W/BL-VT164WE/BL-VT164WU) Antenna: 1x1 (Diversity) Transmission method: SISO (Single Input/ Single Output) -OFDM, OFDM, DSSS Communication standard: IEEE802.11n/b/g BL-VT164W: 2.412 GHz - 2.462 GHz (1 - 11ch) Frequency range

(center frequency)/Channel: **BL-VT164WE/BL-VT164WU**: 2.412 GHz - 2.472 GHz (1 - 13ch) IEEE802.11n: 6.5 - 72.2 Mbps Data transfer rate: *1 IEEE802.11g: 6 - 54 Mbps IEEE802.11b: 1 - 11 Mbps Access method: Infrastructure mode

Authentication method: Open System Security: *2 WPA/WPA2-PSK (TKIP/AES) WEP (64 bit/128 bit) WPS: PBC method (push button method), PIN method (PIN code method)

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(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; (5) ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING

(6) 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

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1) Leakage or theft of information through this unit

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.

ed 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

information, including image data, authentication information (user names and passwords), alarm E-mail information, FTP server information and DDNS server information.

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

Symptom Power is not turned on.

• Is 9 V DC power supply connected to the power supply terminal? → Check whether the connection is appropriately established. • Is the AC adaptor in use compliant with the Specifications?

Use only with Panasonic AC adapter.

→ Check the Specifications regarding AC adaptor.

Network

Network:

Resolution:

Image compression

Transmission interval:

method:

Multi-screen:

method: *3

Imaging mode: 4:3 H.264 SVGA (800x600)/ VGA (640x480)/ QVGA (320x240) max.30 fps JPEG SVGA (800x600)/ VGA (640x480)/ QVGA (320x240) max.30 fps

> Image quality: Low/ Normal/ Fine Transmission type: Unicast/Multicast Bit rate: Constant bit rate:

4096 kbps/ 8192 kbps Frame rate: 1 fps/ 3 fps/ 5 fps/ 7.5 fps/ 10 fps/ 12 fps/ 15 fps/ 20 fps/ 30 fps

6/7/8/9 LOW (10 steps: 0-9) Transmission type: PULL/PUSH 0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264/images.) G.726 (ADPCM) 32 kbps/ 16 kbps 64 kbps

Up to 16 camera images can be displayed simultaneously on a multi-

IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, Protocol: 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 Maximum concurrent 14 (Depends on network conditions) access number:

screen. (Including the camera itself)

Mobile terminal compatibility

(As of January, 2012): *4 Body heat sensor Sensor detection method: pyroelectric infrared sensor Off/ High/ Normal/ Low/ Quiet Sensitivity settings Sensor detection range: About 5 m (with the temperature at 20 °C and Normal sensitivity)

iPad, iPhone, iPod touch (iOS 4.2.1 or later)

*1 The actual line speed may be different depending on the network environment and the wireless devices connected.

between the camera and the wireless router. When connecting with 802.11n, select WPA-PSK (AES) or WPA2-PSK (AES) for security. *3 Transmission for 2 streams can be individually set in the same compression method.

Optional accessories

(http://panasonic.net/pss/security/support/info.html).

BB-HCA8A (P model) BB-HCA8CE (E model, U model)

Information for Users on Collection and Disposal of Old Equipment and used Batteries These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with

> For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation 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.



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] These symbols are only valid in the European Union. If you wish to discard these items,

FOR THE CASES, INCLUDING BUT NOT LIMITED TO BELOW: (1) ANY DAMAGE AND LOSS, INCLUDING WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL

MALFUNCTION OR TROUBLE;

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.

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Android is a trademark of Google Inc. Use of this trademark is subject to Google Permissions.

Copyright

an authorized user name and password.

Change the administrator password periodically

table or a problem is not described below.

As you will use this unit connected to a network, your attention is called to the following security risks.

 Apply measures such as user authentication to protect your network against leakage or theft of • After the unit is accessed by the administrator, make sure to close the browser.

Cause/solution

10BASE-T/100BASE-TX, RJ45 connector

Imaging mode: 16:9 H.264 1280x720/640x360/320x180 max.30 fps JPEG 1280x720/640x360/320x180 max.30 fps

> 64 kbps/ 128 kbps/ 256 kbps/ 384 kbps/ 512 kbps/ 768 kbps/ 1024 kbps/ 1536 kbps/ 2048 kbps/ 3072 kbps/

> Image quality: 0 SUPER FINE/ 1 FINE/ 2/ 3/ 4/ 5 NORMAL/

Audio compression Bandwidth control: Unlimited/ 64 kbps/ 128 kbps/ 256 kbps/ 384 kbps/ 512 kbps/ 768 kbps/ 1024 kbps/ 2048 kbps/ 4096 kbps/ 8192 kbps

FTP client: Alarm image transmission, FTP periodic transmission

Cellular phone compatibility: JPEG image, panning/tilting/zoom/Privacy control,

AUX control (by access level)

Android[™] mobile terminals

*2 Depending on the wireless router (wireless access point) used, connections may not possible

Horizontal: 28°. Vertical: 71°

User License Accessory (For H.264)

*4 For further information about compatible devices, refer to our website

general household waste.

For business users in the European Union



please contact your local authorities or dealer and ask for the correct method of disposal.

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.

• All other trademarks identified herein are the property of their respective owners.

Network security

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

• If this unit is connected to a network that includes PCs, make sure that the system is not infect-

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

Check the installing place

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.

This camera is designed to be used indoors.

This camera is not operable outdoors. Do not expose this camera 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 this camera away from water and moisture.

Do not place this product in the following places:

- Locations where it may get wet from rain or water splash
- 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
- 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 (0 °C to +40 °C
- {32 °F to +104 °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 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

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, disconnect the AC adaptor and 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 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 tightening excessively.
- When a screw is tightened, make the screw at a right angle to the surface. After tightening the screws, perform visual check to ensure tightening is enough and there is no backlash.

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

Radio disturbance

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.

Router

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 further information about the port forwarding function. Configure the wireless settings of the camera to match the wireless settings of the router. For information on the wireless settings of the router, refer to the operating instructions included with your wireless router.

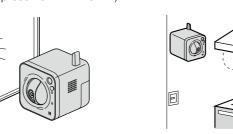
Time & date setting

Lens cover

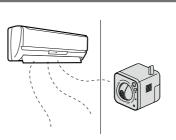
It is necessary to set the time & date before putting this product into operation. Refer to the Operating Instructions on the provided CD-ROM for descriptions of how to perform the settings.

Determining the mounting position

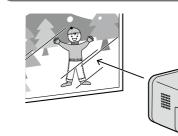
The camera's built-in Body Heat Sensor is a pyroelectric infrared sensor, which may not perform properly in the following areas. Avoid these kinds of locations when mounting the camera. (This illustration represents BL-VT164W.)



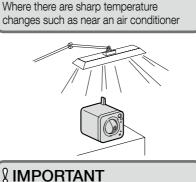
IMPORTANT IMPORTANT Where the camera or the object is In a greasy or humid place such as a exposed to direct sunlight



№ IMPORTANT



IMPORTANT



Where the camera or the object is

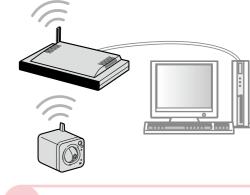
exposed to bright light



Where there is an obstacle such as glass in front of the camera



such as mobile phones



• When using a wireless connection, configure the wireless settings for the camera and the wireless router before installing the camera.

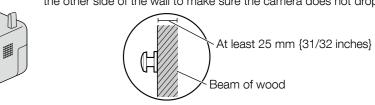
• Confirm in advance that the camera can connect with the wireless router from its installed place. Refer to "3 Connections" for further information.

(This illustration represents BL-VT164W.)

Determining how to mount the camera (This illustration represents BL-VT164W.)

■ Installing the camera on the 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 wall to make sure the camera does not drop.

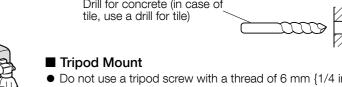


When mounting on a mortar or concrete surface Prepare anchors for 4 mm {5/32 inches} diameter screws for mounting.

Mortar walls break easily when drilling. Be careful of pieces of mortar which may become loose and fall.

1. Place the flexible stand on the wall where you plan to mount the flexible

- stand and mark the points where you are going to make holes. 2. Make holes with an electric drill. Insert anchors (locally procured)
- into the holes and push them inside the holes with a hammer.
- 3. Mount the flexible stand using the screws. Drill for concrete (in case of



• Do not use a tripod screw with a thread of 6 mm {1/4 inches} or more. This may damage the tripod mounting hole.

• The camera cannot be mounted depending on the shape of the camera When the camera is installed to a tripod mount, because the center of gravity is moved forward, the tripod may fall over.

About the range of use for wireless communication (BL-VT164W, BL-VT164WE, BL-VT164WU)

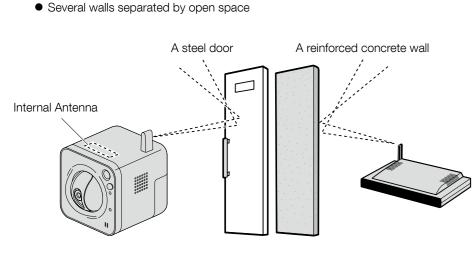
- Do not use this product in the following areas or locations.
- (It may cause interference to radio communications or malfunction.) • Indoor areas that have specified radio stations or mobile communications
- Locations near microwave ovens or Bluetooth devices • Indoors areas that use antitheft devices or 2.4 GHz frequency devices such as

Change the installation location of the camera when there are materials or

objects such as the following between the camera and a wireless router. (When there are materials or objects that are difficult for radio waves to pass through in the installation area, wireless transmission may fail or the transmission speed may become slower.)

(When there are materials or objects that reflect radio waves in the installation area, wireless transmission may fail or the transmission speed may become slower due to interference from reflected radio waves.)

- A metallic door or shutter A wall made of tin ◆ A wall with an insulation material that contains aluminum foil
 ◆ A steel shelf
- A wall made of concrete, stone or brick



When two or more radio routers and radio interference exist, radio may become being hard to be connected or transmission speed may become remarkably slow. In that case, it may be necessary to change the channel of a radio router or to rearrange wireless applications.

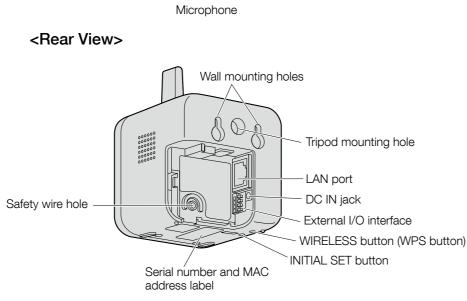
Major operating controls

<BL-VT164W/BL-VT164WE/BL-VT164WU>

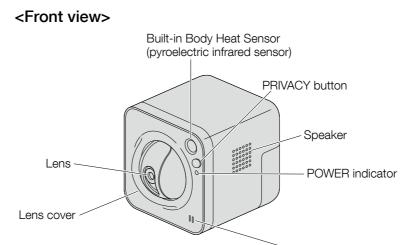
Built-in Body Heat Sensor <Front view> (pyroelectric infrared sensor) Antenna PRIVACY button POWER indicator

WIRELESS indicator (WPS indicator) Microphone

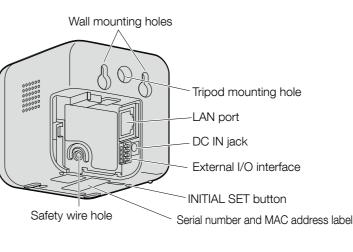
Cable cover



<BL-VT164/BL-VT164E/BL-VT164U>



<Rear View>



Microphone

Cable cover

About the [INITIAL SET] button

After turning off the power of the camera, turn on the power of the camera while holding down this button, and wait for around 5 seconds or more without releasing this button. Wait around 3 minutes after releasing the button. The camera will start up and the settings including the network settings will be initialized. Before initializing the settings, it is recommended to write down the settings in advance. The initialization will be complete when the POWER indicator stops blinking orange and lights off. Note that the preset position settings and the CRT key (SSL encryption key) used for the HTTPS protocol will not be initialized.

IMPORTANT

• Do not turn off the power of the camera during the process of initialization. Otherwise, it may fail to initialize and may cause malfunction.

About the [PRIVACY] button

Privacy mode allows you to protect your privacy by hiding the lens inside the camera, preventing camera images from being seen. You can turn privacy mode on by pressing the PRIVACY button on the front of the camera.

When privacy mode is turned on, the PRIVACY button (which also serves as the camera's POWER indicator) changes from green to red to let you know that privacy mode is activated. To turn privacy mode off and allow the camera to be accessed, simply press the PRIVACY button again. It should turn green within a few seconds.

If users are accessing the camera when privacy mode is turned on, the camera image area displayed in their web browsers turns into a black image display. No camera pages can be accessed by users while privacy mode is turned on. Once privacy mode is turned off, users can press the refresh button in their web browsers to view images again. The camera's administrator can also turn privacy mode on and off using a PC or a mobile

phone, and the PRIVACY button itself can be disabled so that privacy mode cannot be turned on or off by pressing the PRIVACY button. For more information about privacy mode, see Privacy Mode in the Operating Instructions

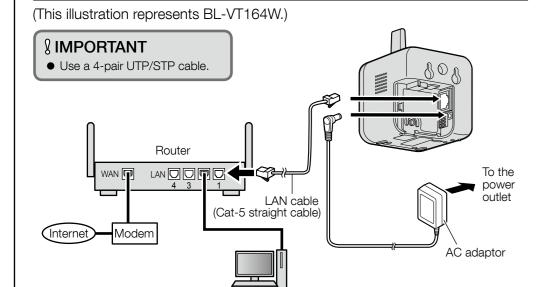
(included in the CD-ROM).

 If you plan on using the PRIVACY button to turn privacy mode on and off, make sure you mount the camera where you can reach the button.

About the POWER indicator and the WIRELESS indicator (WPS indicator) For more information, see Configure the basic settings [Basic] in the Operating Instructions (included in the CD-ROM).

Connections

When connecting the camera to your router



Connect the LAN cable to the camera and the router.

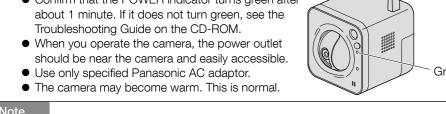
era using a wireless LAN". Connect the AC adaptor cord to the DC IN jack.

Connect the AC adaptor to the camera and plug the AC adaptor into the power outlet.

When connecting the camera to a wireless LAN, refer to "When connecting the cam-

 Confirm that the POWER indicator turns green after Troubleshooting Guide on the CD-ROM.

form the camera settings.



• The camera operates in wireless mode when the camera is turned on without the LAN cable connected or with the power of the router turned off. Recheck the LAN cable connection and the power to the router, and then turn the camera on or off.

After connecting the camera, refer to "Configure the settings of the camera" (leaflet) and per-

When connecting the camera using a wireless LAN

(BL-VT164W, BL-VT164WE, BL-VT164WU) Use the camera's WIRELESS button (WPS button) to automatically perform wireless settings.

Turn on the camera without connecting the LAN cable to enable the wireless settings. After the initial pan/tilt operations are performed, the POWER indicator stops blinking orange and lights orange. The POWER

indicator lights orange and the camera starts up in wireless LAN mode about 90 seconds after the camera was turned on. Select ON for the WPS function (Push-button method (PBC)) on the wireless router. (For more information, refer to the operating instructions

settings have been successfully completed

"Off" for the "Indicator" on the [Basic] tab of the "Basic" page.

included with your wireless router.) Press and hold down the WIRELESS button for a second or more until the WIRELESS indicator blinks orange. • The camera and the wireless router automatically start performing wireless settings. Settings may take up to 2 minutes to be performed. • The WIRELESS indicator stops blinking orange and lights green. When the POWER indicator lights green, the wireless

About 5 seconds after the POWER indicator lights green, the

camera restarts in order to obtain the network settings and



WIRELESS indicator

•When WPS starting

about 2 minutes)

•When WPS setup is

completed: lit green

up: blinks orange (for

(WPS indicator)

apply the wireless settings. • If about 2 minutes pass after the WIRELESS indicator starts blinking and the wireless connection is not completed, the WIRELESS indicator will blink red for about 10 seconds and then go off. If this happens the wireless settings have failed. Check the wireless

- router's settings and connection procedures, and then try performing the settings again. If the WPS settings fail to automatically configure, check the settings of the wireless router and the camera. • If you want to turn off the WIRELESS button and POWER indicator's green light, select
- **NIMPORTANT** • WPS function is unavailable when the wireless router is set to shared key authentication.
- When the wireless router or other devices are set to use the ESS-ID stealth function (hidden SSID), the WPS function is unavailable. • During the configuration of WPS setting, another wireless device may be temporarily
- caused interference by the wireless router. If the wireless router is configured to use the MAC address filtering feature, the WPS function is unavailable. Check the settings of the wireless router.
- If the settings for the WPS function are performed when no wireless devices to be connected to the wireless network, etc. the configuration will be automatically cancelled after 2 minutes. (Check the wireless router in use before configuration.) The auto setup of the WPS function may be unavailable if there are multiple Registrars

• If you do not use the WPS function of the wireless router, we recommend that you turn

(wireless router which have the WPS function on) on the same network.

OFF your wireless router WPS feature.

After connecting the camera, refer to "Configure the settings of the camera" (leaflet) and perform the camera settings.

Confirm the status of the wireless connection on the [Status] tab of the "Wireless" page.

External I/O terminals Connect external devices to the EXT I/O terminal When connecting an external device, remove 9 mm - 10 mm

{11/32 inches - 13/32 inches} of the outer jacket of the cable and twist the cable core to prevent the short circuit first. Specification of cable (wire): 22 AWG - 28 AWG Single core, twisted

Strip range Approx. 9 mm - 10 mm {11/32 inches - 13/32 inches}

"ALARM IN 3". It is possible to determine whether or not to receive input from EXT I/O terminal 2 and 3 (ALARM IN2, 3) by selecting "Off", "Alarm input", "Alarm output" or "AUX output" for "Terminal alarm 2" or "Terminal alarm 3" on the [Alarm] tab on the "Alarm setup"

or more wires, use a splitter.

№ IMPORTANT

page. Refer to the Operating Instructions (included in the CD-ROM) for further information. • The default of EXT I/O terminals is "Off". When "Off" is selected, it is possible to connect external devices as well as the input setting. • When using the EXT I/O terminals as the output terminals, ensure they do not cause signal collision with external signals.

• Do not connect 2 wires or more directly to a terminal. When it is necessary to connect 2

• Input and output of the external I/O terminal 2 and 3 can be switched by configuring the

setting. The default of EXT I/O terminal 2 is "ALARM IN 2" and of EXT I/O terminal 3 is

<Ratings> • ALARM IN1, ALARM IN2, ALARM IN3

Input specification : No-voltage make contact input (4 V - 5 V DC, internally pulled up) : Open or 4 V - 5 V DC

: Make contact with GND (required drive current: 1 mA or more) ALARM OUT, AUX OUT Output specification: Open collector output (maximum applied voltage: 20 V DC)

Close	: 4 V - 5 V DC by Internal pull-up : Output voltage 1 V DC or less (maximum drive current: 50 mA)					
Pin	Function					
4	GND					
3	EXT I/O terminal 3 (ALARM IN 3/ AUX OUT (Auxiliary output))					
2	EXT I/O terminal 2 (ALARM IN 2/ ALARM OUT)					
1	EXT I/O terminal 1 (ALARM IN 1)					

Mounting the Camera

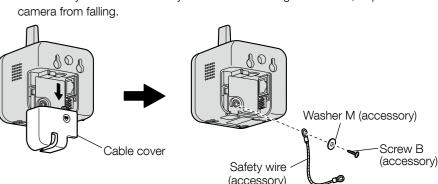
Before installing the camera, check that the camera settings have been completed. Refer to "Configure the settings of the camera" (leaflet).

Installing the camera on the wall

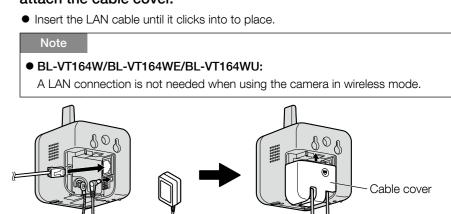
(This illustration represents BL-VT164W.)

Adjust the camera to a suitable position/direction while confirming the images actually displayed Remove the cable cover, secure the safety wire to the camera

using screw B (accessory) and washer M (accessory). (Recommended tightening torque: 1.6 N·m {1.18 lbf·ft}) • Make sure you attach the safety wire when mounting the camera, to prevent the camera from falling.

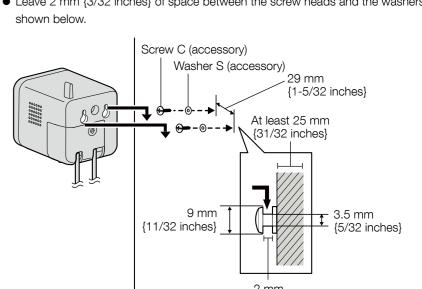


Connect a LAN cable and the AC adaptor cord to the camera and attach the cable cover.



Mount the camera on the screws by inserting the screws into the camera's wall mounting holes, then sliding the camera down until

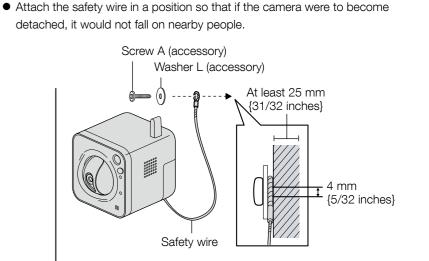
it is secure. (Minimum pull-out strength: 294 N {66.09 lbf}) • Leave 2 mm {3/32 inches} of space between the screw heads and the washers, as



{3/32 inches}

Secure the safety wire to the wall using screw A (accessory) and

washer L (accessory). (Minimum pull-out strength: 294 N (66.09 lbf)) • Leave some slack in the safety wire, as shown.



Choosing a Location to Mount the Camera

Notes About the Camera's Built-in Body Heat Sensor (This illustration represents BL-VT164W.) Please read the following information about the camera's built-in Body Heat Sensor (Pyroelectric

infrared sensor) before deciding where to mount the camera.

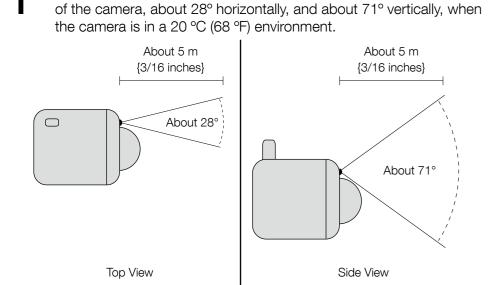
Refer to the Panasonic Network Camera website at

http://panasonic.net/pss/security/support/info.html for further information about the built-in Body Heat Sensor. The camera's built-in Body Heat Sensor is a pyroelectric infrared sensor, which means it uses infrared rays to detect temperature differences within its range that are emitted naturally by people,

animals, etc. The sensor can be used to trigger the camera to buffer (i.e., temporarily store) camera images in its memory. You can view these images later as desired. The sensor can also be used to

trigger the camera to transfer images to someone or somewhere, by FTP, E-mail, or HTTP. Because the detection range is easily affected by the temperature of the surrounding environment or how fast the objects in front of the camera are moving, you should take the following into consideration when deciding where to mount the camera.

The sensor's active detection range is about 5 m {3/16 inches} in front



If an object is within about 1 m {1/32 inches} of the camera, the sensor

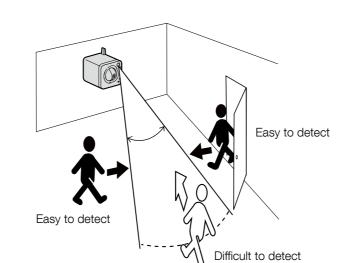
may detect the object even if it is outside of the sensor's range.

- If there is no temperature difference between objects in range of the camera's sensor and the surrounding environment, such as on a hot summer day, the sensor may not be able to detect properly.
- If the sensor is obstructed, the sensor is not able to make detections. Remove any obstacles in front of the sensor. As shown in the illustration below, the sensor can easily detect

temperature differences of objects moving sideways within the detection

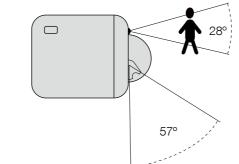
Mount the camera where objects often pass the camera from the sides.

range, but cannot easily detect objects moving slowly towards the sensor.



- be reduced) If the lens is aimed at an area outside of the sensor's active detection range, the objects that trigger the sensor may not be visible, and therefore buffered or transferred images may not show the object that triggered the
 - In the example below, the person has triggered the sensor, but the person is not in the visible range of the camera.
 - We recommend that you limit the pan and tilt range of the camera to the active detection range of the sensor, or that you limit other user's access to the pan and tilt features.

U (The detection range may



The sensor may not perform properly in some areas. • Refer to "Determining the mounting position" when mounting the camera.

When deciding where to mount the camera, you can verify the sensor's ability to make detections that satisfy your needs by referring to the camera's POWER indicator. See Configure the basic settings [Basic] in the Operating Instructions (included in the CD-ROM), and configure the camera to light the POWER indicator in orange when the sensor makes a detection. You can then adjust the sensitivity of the sensor (see Configure the settings relating to the alarm action [Alarm] in the Operating Instructions (included in the CD-ROM)) or change the camera's location if necessary. Note that if you increase the sensitivity of the sensor, the sensor may make inaccurate detections.

• If you are not satisfied with the sensor's ability to make detections, we recommend using the camera's motion detection feature. This feature detects motion by detecting changes in the camera image. For more information, see Configure the VMD settings [VMD area] in the Operating Instructions (included in the CD-ROM).

The built-in sensor and the motion detection feature are not designed to be used for security or surveillance. No responsibility will be taken by our company with respect to consequences resulting from the use of these features.

