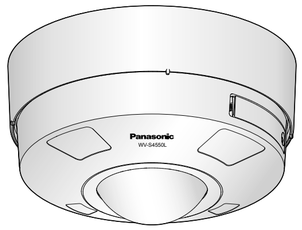
Panasonic

Installation Guide

Included Installation Instructions

Network Camera

Model No. WV-X4571L / WV-X4571LM
WV-S4550L / WV-S4550LM



WV-S4550L

- Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.
- For information about the basic description of this product, refer to the Important Information on the provided CD-ROM. For information about how to perform the settings and how to operate the camera, refer to the Operating Instructions on the provided CD-ROM.
- The model number is abbreviated in some descriptions in this manual.

For U.S. and Canada:

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Two Riverfront Plaza, Newark, NJ 07102-5490
http://business.panasonic.com/

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Panasonic Corporation
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Panasonic Corporation
Osaka, Japan

Authorised Representative in EU:

Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, Germany

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WARNING:

- To prevent injury, this apparatus must be securely attached to the wall/ceiling in accordance with the installation instructions.
- All work related to the installation of this product should be made by qualified service personnel or system installers.
- The installation shall be carried out in accordance with all applicable installation rules.
- The connections should comply with local electrical code.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunlight, fire or the like.

CAUTION:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant.

For Canada

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

: Direct current symbol

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 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.

Disposal of Old Equipment and Batteries
Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.
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.
By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.
For more information about collection and recycling, please contact your local municipality.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Note for the battery symbol (bottom symbol)
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.

Important safety instructions

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
6) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
7) Only use attachments/accessories specified by the manufacturer.
8) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

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

Troubleshooting

Before requesting service, refer to the Important Information (included in the CD-ROM) and "Troubleshooting" in the Operating Instructions (included in the CD-ROM) and confirm the trouble.

Open Source Software

- This product contains open source software licensed under GPL (GNU General Public License), LGPL (GNU Lesser General Public License), etc.
- Customers can duplicate, distribute and modify the source code of the software under license of GPL and/or LGPL.
- Refer to the "readme.txt" file on the provided CD-ROM for further information about open source software licenses and the source code.
- Please note that Panasonic shall not respond to any inquiries regarding the contents of the source code.

About notations

The following notations are used when describing the functions limited for specified models.
The functions without the notations are supported by all models.

(X4571L) :The functions with this notation are available when using the model WV-X4571L.
(X4571LM) :The functions with this notation are available when using the model WV-X4571LM.
(S4550L) :The functions with this notation are available when using the model WV-S4550L.
(S4550LM) :The functions with this notation are available when using the model WV-S4550LM.

About the user manuals

Product documentation is composed of the following documents.

- **Installation Guide (this document):** Explains installation, mounting, cable connections, and adjusting the field of view. This manual uses the WV-S4550L as an example in the explanations.
- **Important Information (included in the CD-ROM):** Provides basic information about the product.
- **Operating Instructions (included in the CD-ROM):** Explains how to perform the settings and how to operate this camera.

Adobe® Reader® is required to read these operating instructions on the provided CD-ROM.
When the Adobe Reader is not installed on the PC, download the latest Adobe Reader from the Adobe web site and install it.
The external appearance and other parts shown in this manual may differ from the actual product within the scope that will not interfere with normal use due to improvement of the product.

Standard accessories

Installation Guide (this document) ..... 1 set
IMPORTANT SAFETY INSTRUCTIONS..... 1 pc.
Warranty card*1 ..... 1 set
CD-ROM*2..... 1 pc.
Code label*3..... 1 pc.

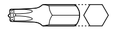
*1 This product comes with several types of warranties. Each warranty is only applicable to the products purchased in the regions indicated on the relevant warranty. (X4571L) (S4550L)
*2 The CD-ROM contains the operating instructions and different kinds of tool software programs.
*3 This label may be required for network management. Use caution not to lose this label.

The following parts are used during installation procedures.

Base bracket (X4571L) (S4550L) ..... 1 pc.
Attachment plate ..... 1 pc.
Fixing screws for attachment plate
(M4 × 8 mm {5/16 inches}) (X4571L) (S4550L) ..5 pcs.
(of them, 1 for spare)
Template A (for the attachment plate)..... 1 sheet
Template B (for the base bracket)
(X4571L) (S4550L) ..... 1 sheet
Waterproof tape..... 1 pc.
RJ45 waterproof connector cover
(X4571L) (S4550L)..... 1 pc.
RJ45 waterproof connector cap
(X4571L) (S4550L)..... 1 pc.
Bit (Hex wrench, screw
size 6.35 mm {1/4 inches} T20) ..... 1 pc.
4P alarm cable ..... 1 pc.
2P power cable ..... 1 pc.

Waterproof tape

Bit



Preparations

Prepare the required parts for each installation method before starting the installation.

IMPORTANT:

- Procure 4 screws (M4) to secure the base bracket (accessory) or the attachment plate (accessory) to a ceiling or a wall.
- The minimum required pull-out capacity of a single screw or anchor bolt is 196 N {44 lbf} or more when mounting with the installation method【Type 1】,【Type 2】, or【Type 3】(X4571L) (S4550L) described in the right table.
- Select screws according to the material of the location that the camera will be mounted to. In this case, wood screws and nails should not be used.
- If the mounting location such as plaster board is too weak to support the total weight, the area shall be sufficiently reinforced..

* This document explains the installation methods for【Type 1】,【Type 2】, and【Type 3】(X4571L) (S4550L).

Installation method	Description of installation method
Mount the camera on the two-gang junction box using the attachment plate (accessory).	【Type 1】
Directly mount the camera onto the ceiling or wall using the attachment plate (when wiring can be installed in the ceiling or wall).	【Type 2】
Mount the camera onto the ceiling or wall using the base bracket (accessory) (when conduits are used for wiring, or when there is no space available for wiring in the ceiling or the wall). (X4571L) (S4550L)	【Type 3】
Mount the camera using WV-Q121B (Ceiling mount bracket), WV-Q122A (Wall mount bracket), WV-Q185 (Wall mount bracket), WV-Q124 (Mount bracket) or WV-Q186 (Mount bracket).	Refer to each instruction guide of the bracket.

Installation

The installation tasks are explained using 6 steps.

● Remove the camera using the reverse order of the installation procedures.

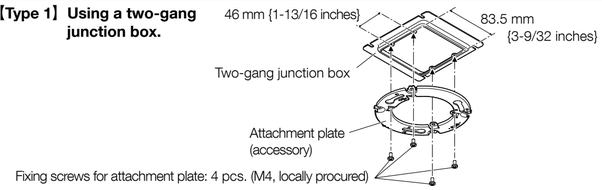
Step1 Fixing the brackets ⇨ **Step2** Insert an SD memory card. ⇨ **Step3** Making connections ⇨ **Step4** Mount the camera ⇨ **Step5** Configure the network settings ⇨ **Step6** Make fine adjustment to the image direction

Step 1 Fixing the brackets *There are 3 methods to install the camera to a ceiling or wall.

【Common】

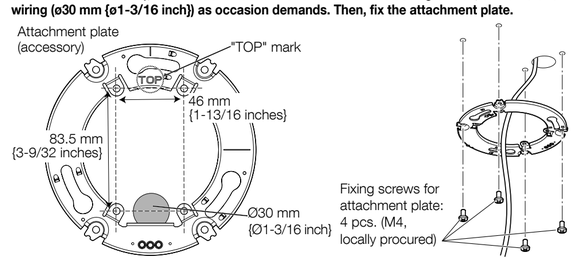
- **Attach the attachment plate (accessory) so that the "TOP" mark (see the illustration at left in【Type 2】) faces toward the opposite side of the attachment face (camera installation side).**
- **When this product is installed on a wall, attach the attachment plate (accessory) with the "TOP" mark facing upward.**

【Type 1】 Using a two-gang junction box.



【Type 2】 Directly mount the camera to the ceiling or wall using the attachment plate.

Align the "TOP" direction of the template A (accessory) with the desired direction (upper direction of the screen), bore holes for screws or anchors on the ceiling or wall, and a hole for wiring (ø30 mm {ø1-3/16 inch}) as occasion demands. Then, fix the attachment plate.

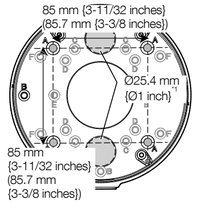


【Type 3】 Mount the camera to a ceiling or a wall using base bracket (accessory).
(X4571L) (S4550L)

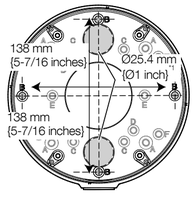
①Using the template B (accessory), make screw holes for fixing the base bracket and wiring holes.

The base bracket can be fixed in any of the following 6 screwing positions according to ceiling and wall conditions. Match the hole used when installing the camera to any of positions A to F.

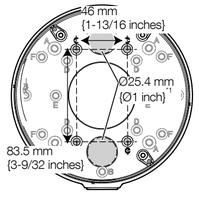
Position A



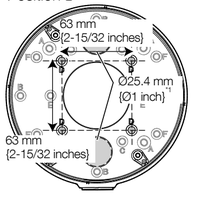
Position B



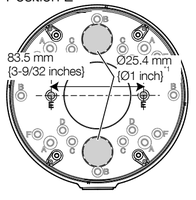
Position C



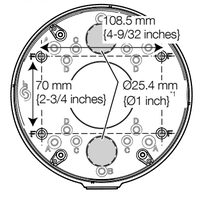
Position D



Position E *2



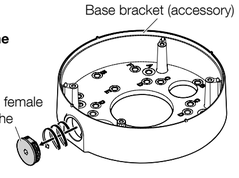
Position F



*1 The wiring hole diameter is 25.4 mm {1 inch}. Select any of the two wiring holes of template B (accessory) when installing the base bracket.
*2 When attaching the base bracket to a one-gang junction box in Position E, secure the base bracket with 2 screws (M4, locally procured).

②When using the conduit on the ceiling or wall for wiring, remove the cap for the female thread for the conduit by using a hexagon wrench (ISO 2936, width across flats S=5 mm {3/16 inches}).

The female thread for conduit is compliant with ANSI NPSM (parallel pipe threads) 3/4 or ISO 228-1 (parallel pipe threads) G3/4.

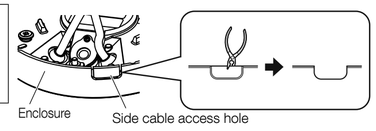


<Processing of side cable access hole (X4571LM) (S4550LM)>

When installing the camera directly on the ceiling or wall with cables exposed, cut out a portion of the enclosure to open a cable access hole.

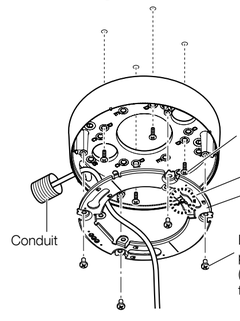
IMPORTANT:

- To prevent injuries and protect the cables, finish the side cable access hole with a file to avoid sharp edges.

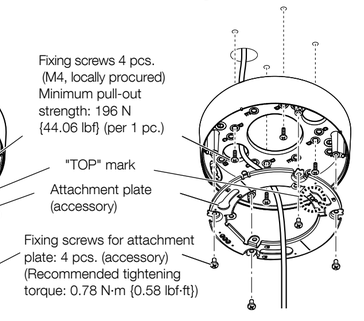


③Mount the attachment plate and the base bracket.

<When using the conduit on the ceiling or wall for wiring>



<When drilling a hole through the ceiling or wall for wiring>



IMPORTANT:

- If open wiring is conducted, be sure to use conduits and run the cables inside the tubes to protect the cables from direct sunlight.
- Installation work shall be such that there is no exposure to water into the architecture through the conduits having been joined.

Note:

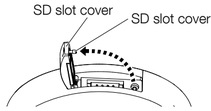
- Make sure to attach the attachment plate (accessory) so that the "TOP" mark faces in the opposite direction of the cap for the female thread for the conduit.
- The direction of "TOP" on the attachment plate (accessory) determines the upwards direction of the image on the PC monitor. Determine the direction that you want images to be displayed upwards on the PC monitor, and then align the direction of the base bracket (accessory).

Step2 Insert an SD memory card

When using an SD memory card, go through the following procedure before installing the camera.

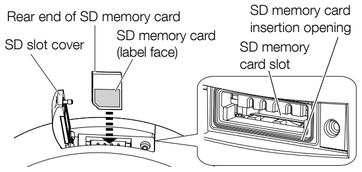
When removing an SD memory card, reverse the procedure. Refer to the Important Information on the provided CD-ROM for further information about the SD memory card settings.

【1】 Loosen the SD slot cover fixing screw on the side of the camera using the bit (accessory), and open the SD slot cover.



【2】 Insert an SD memory card into the SD memory card slot straight to the end, and confirm a click sound is heard. (direct the label face of the SD memory card toward the lens side of the camera)

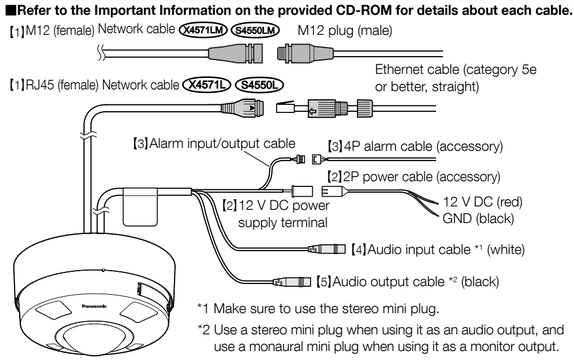
After a click sound is heard, release your finger from the SD memory card and confirm the rear end of the card does not project from the SD memory card insertion opening.



【3】 Close the SD slot cover, and tighten the SD slot cover fixing screw to secure the cover.
(Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})

Step 3 Making connections

■Refer to the Important Information on the provided CD-ROM for details about each cable.



*1 Make sure to use the stereo mini plug.
*2 Use a stereo mini plug when using it as an audio output, and use a monaural mini plug when using it as a monitor output.

IMPORTANT:
- Turn off each system's power supply (PoE hub or device to supply power to the camera) before making a connection.
- The 12 V DC power supply shall be insulated from the commercial AC power.

X4571L S4550L

【1】 Connect an Ethernet cable (category 5e or better, straight) to RJ45 (female) network cable. * The maximum cable length is 100 m {328 feet}.

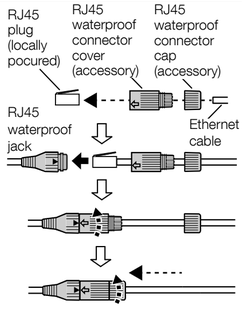
IMPORTANT:
- If the procedure for the RJ45 waterproof connector (accessory) part is not correctly followed, the waterproofing may be compromised. Do not install the camera where the RJ45 waterproof connector is exposed to constant rain or moisture.
- The external dimensions of the Ethernet cable are from ø5 mm {ø3/16 inches} to ø6.5 mm {ø1/4 inches}.
- When removing the RJ45 waterproof connector, be sure to loosen the RJ45 waterproof connector cap first, rotate the RJ45 waterproof connector cover in the direction opposite to the attaching direction, and remove it. (If the RJ45 waterproof connector cover is removed when the "⇦" mark of the RJ45 waterproof connector cover is aligned with the "▶" mark of the RJ45 waterproof jack, the RJ45 waterproof jack may be damaged)

①First pass the Ethernet cable through the RJ45 waterproof connector cap (accessory) and then through the RJ45 waterproof connector cover (accessory). Next, use a specialized tool (locally procured) to crimp the RJ45 plug (locally procured) to the end of the Ethernet cable.
- Take care not to remove the rubber parts from inside the RJ45 waterproof connector cover.

②Insert the RJ45 plug into the RJ45 waterproof jack connected to the camera.

③Connect the RJ45 waterproof connector cover to the RJ45 waterproof jack and then rotate the RJ45 waterproof connector cover until the "⇦" marks align.

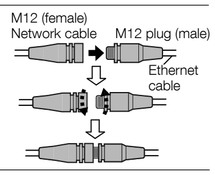
④Connect the RJ45 waterproof connector cap to the RJ45 waterproof connector cover and rotate the RJ45 waterproof connector cap until there is no gap between it and the RJ45 waterproof connector cover.



X4571LM S4550LM

【1】 Connect an Ethernet cable (category 5e or better, straight) to M12 (female) network cable.
* The maximum cable length is 100 m {328 feet}.

①Insert the M12 plug into the M12 Network cable connected to the camera.
②Tightly fasten the connector by rotating both rings in opposite directions



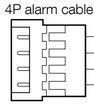
【2】 When connecting an AC adaptor or an external power supply, use the 2P power cable (accessory) to connect it to the camera.

Caution:
- A READILY ACCESSIBLE DISCONNECT DEVICE SHALL BE INCORPORATED TO THE EQUIPMENT POWERED BY 12 V DC POWER SUPPLY.
- ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER SOURCE (IEC/EN/UL/CSA 60950-1).

Connect the output cable of the AC adaptor to the 2P power cable (accessory).
(Red: 12 V DC side, Black: GND side)

【3】 If needed, connect the 4P alarm cable (accessory).

4P alarm cable (accessory)



GND (Black)
ALARM IN3 (Alarm input 3/ AUX output) (Gray)
ALARM IN2 (Alarm input 2/ Alarm output) (Red)
ALARM IN1
(Alarm input 1/ Black & white input / Auto time adjustment input) (Green)

Note:
- The default of EXT I/O terminals is "Off". Refer to the Operating Instructions on the provided CD-ROM for further information about the EXT I/O terminal settings.

【4】 If needed, connect a microphone or the line out of an external device to the audio input cable.

【5】 If needed, connect a powered speaker to the audio output cable.

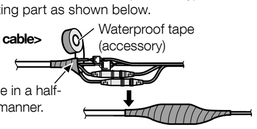
Note:
- The audio output can be switched to the monitor output. Refer to the "Operating Instructions" on the provided CD-ROM for descriptions of how to switch the output.

【6】 Adequate waterproof treatment is required for the cables when installing the camera with cables exposed.

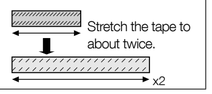
The camera body is waterproof, but the cable ends, inside the base bracket (accessory) are not waterproof. Apply waterproof treatment on the connecting part as shown below.

<Waterproof treatment for other cables than the Ethernet cable>

Apply some waterproof tape (accessory) as shown in the right.

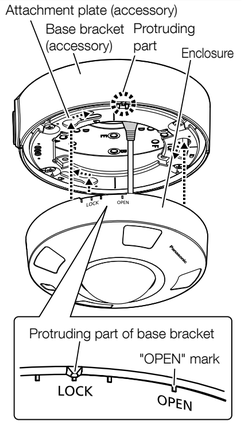


IMPORTANT:
- Stretch the tape by approx. twice (see the illustration) and wind it around the cable. Insufficient tape stretch causes insufficient waterproofing.



Step 4 Mount the camera

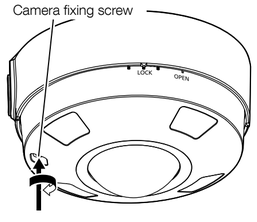
【1】 Align the direction of the Panasonic logo on the camera with "TOP" of the attachment plate (accessory). Align the OPEN mark on the side of enclosure with the protruding part of the base bracket (accessory), insert 3 attachment mounting screws into the attachment plate, rotate the camera approximately 20°, and move the LOCK mark to the protruding part of the base bracket to temporarily secure the camera.
(align the LOCK mark center, "I", with the protruding part of the base bracket)
X4571L S4550L
- When directly attaching the attachment plate to a ceiling or wall, align the OPEN mark to the tab of the attachment plate.



Note:
- Be careful not to apply unnecessary force to the connector connecting portion or not to pinch the cables when this product is mounted on the base bracket. X4571L S4550L
- The image direction can be finely adjusted after completion of the installation. Refer to "**Step 6 Make fine adjustment to the image direction**" for further information on adjustment.

【2】 Secure the camera by tightening the camera fixing screws by using the bit (accessory).

IMPORTANT:
- Be sure to tighten the camera fixing screw. Failure to observe this may cause camera trouble due to camera falling. (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})



【3】 Remove the protection film from the dome cover.

【4】 Turn on power for the camera.

Step 5 Configure the network settings

Configure the setting of the camera after temporarily invalidating the firewall software. Once the camera configuration is completed, return to the original state.
Contact the network administrator or your Internet service provider for information about configuring the settings of the network.

【1】 Insert the provided CD-ROM into the CD-ROM drive of your PC.

The License Agreement will be displayed. Read the Agreement and choose "I accept the term in the license agreement", and click [OK].
⇒ The launcher window will be displayed.

Note:
- If the launcher window is not displayed, double click the "CDLauncher.exe" file on the CD-ROM.
- Refer to "Using the CD-ROM" in the Operating Instructions on the provided CD-ROM for further information about CDLauncher

【2】 Click the [Run] button next to [IP Setting Software].

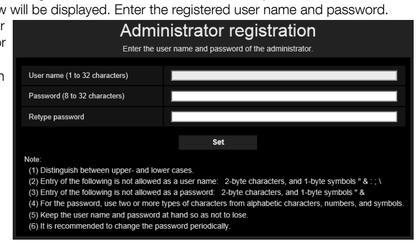
⇒ [Panasonic IP Setting] screen will be displayed.
The MAC Address / IP address of the detected camera will be displayed.

【3】 Select the camera you want to configure (①), and click [Network Settings] (②) to change the network settings. Then, click [Access Camera] (③).

Note:
Select the camera with same MAC address as the MAC address printed on the camera that you want to configure.

【4】 When the administrator registration window is displayed, enter "User name","Password" and "Retype password" by following the instructions displayed on the screen, and then click the [Set] button.

Please keep your user name and password in a safe place free from public view to ensure security. After completing the registration, the camera will automatically be re-connected and the authentication window will be displayed. Enter the registered user name and password.
The default setting of user authentication is "On". For further information, refer to the "Preface" section in the Operating Instructions.



IMPORTANT:
- When the camera is used over the Internet, setting user authentication to "Off" may lead to unintended access by a third party. Please leave user authentication set to "On".

【5】 When live images from the camera are displayed, the network connection is complete.

Note:
For more information on the following content, refer to the Operating Instructions.
- Please set [Time & date] on the [Basic] screen of "Setup" before using the camera.
- It is impossible to display H.265 (or H.264) or MJPEG images, receive/transmit audio, display logs, and use full-screen display when the viewer software "Network Camera View 4S" is not installed on the PC.
- Depending on the environment of your PC, it may take time for images to be displayed.
- At the time of purchase, the audio input and output are set to "Off".If needed, change the setting on the "Audio" screen in "Setup".
- Due to security enhancements in "IP Setting Software", "Network settings" cannot be changed when around 20 minutes have passed after turning on the power of the camera to be configured. (When the effective period is set to "20 min" in the "Easy IP Setup accommodate period".) However, settings can be changed after 20 minutes for cameras in the initial set mode.

If images are not displayed, set the Web browser to compatibility view. For details on how to configure, refer to our website (https://security.panasonic.com/support/info/)

Step 6 Make fine adjustment to the image direction

See the captured image on a PC, and follow the procedure described below for fine adjustment of the upper direction of the screen (camera direction).
For camera fixation, three points are available considering "I" of the LOCK mark as 0°; 0° (center), +5° (rightward), or -5° (leftward).

【1】 Loosen the camera fixing screw using the bit (accessory).

IMPORTANT:
- Loosening the camera fixing screw allows the camera to be in the temporary fixed state.

【2】 Move the LOCK position of the camera clockwise or counterclockwise to finely adjust the image direction while seeing the captured image on a PC.

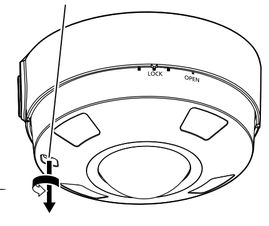
IMPORTANT:
- Turning the camera counterclockwise too much removes the camera from the attachment plate. Be careful not to do so.

【3】 Secure the camera by tightening the camera fixing screw.

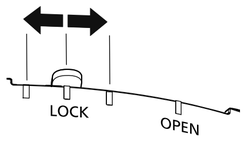
IMPORTANT:
- Be sure to tighten the camera fixing screw. Failure to observe this may cause camera trouble due to camera falling. (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})

Upper direction of screen

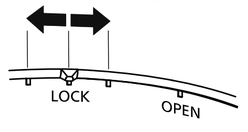
Camera fixing screwr



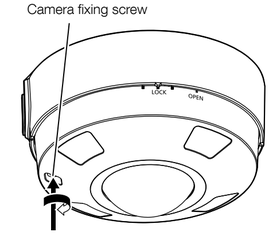
【Type 1】【Type 2】



【Type 3】 X4571L S4550L



Camera fixing screw



Note:
- When night shooting is performed using an IR LED, be aware that reflected light may be seen in captured images if the ceiling is close to the camera installed on the wall or the wall is close to the camera installed on the ceiling. In such a case, keep 3 meters or more of the distance between the fixation position of the camera and ceiling or wall. Additional information on omnidirectional shooting using an IR LED is available at the Website below.
https://security.panasonic.com/support/info/