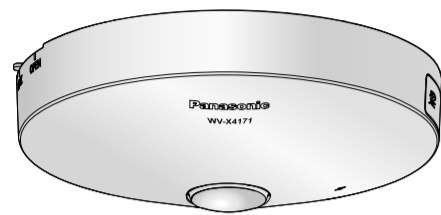# Panasonic®

Installation Guide

Included Installation Instructions

Network Camera

Model No. WV-X4171 / WV-X4170
WV-S4150

WV-X4171   WV-S4150

SD XC™

- 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.

Important safety instructions

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Only use attachments/accessories specified by the manufacturer.
10) 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.

11) Unplug this apparatus during lightning storms or when unused for long periods of time.
12) 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.

X4171 : The functions with this notation are available when using the model WV-X4171.
X4170 : The functions with this notation are available when using the model WV-X4170.
S4150 : The functions with this notation are available when using the model WV-S4150.

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-S4150 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	CD-ROM*2 .... 1 pc.
IMPORTANT SAFETY INSTRUCTIONS .... 1 set	Code label*3 .... 1 pc.
Warranty card*1 .... 1 set	

*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.
*2 The CD-ROM contains the operating instructions and different kinds of tool software programs.
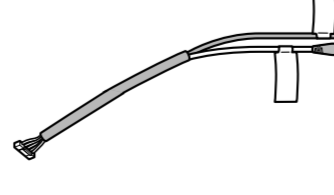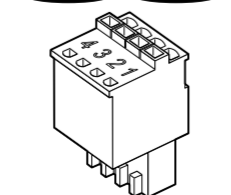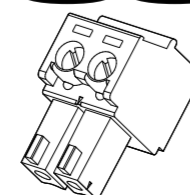*3 This label may be required for network management. Use caution not to lose this label.

The following parts are used during installation procedures.

Attachment plate .... 1 pc.	Cable tie X4171 S4150 ...... 2 pcs. (incl. 1 spare)
Template A (for the attachment plate) .... 1 sheet	Safety wire lug X4171 S4150 .... 1 pc.
Audio cable X4171 S4150 .... 1 pc.	Safety wire X4171 S4150 .... 1 pc.
Power cable plug X4171 S4150 .... 1 pc.	Washer X4171 S4150 .... 1 pc.
External I/O terminal plug*4 X4171 S4150 ... 1 pc.	Spring washer X4171 S4150 .... 1 pc.

Power cable plug X4171 S4150

External I/O terminal plug X4171 S4150

Audio cable X4171 S4150

*4 The external I/O terminal plug and power cable plug are attached to the camera. X4171 S4150

Preparations

Other items that are needed (not included)

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

IMPORTANT:
- Procure 4 screws (M4) to secure 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】 or 【Type 2】 described in the table below.
- 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.

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】
When mounting the camera on an insufficiently strong ceiling using the WV-Q105A ceiling mount brackets (approximately 150 g {0.33 lbs}).	Refer to the Instruction Manual provided with the WV-Q105A *1.
When mounting the camera on ceiling using the mount bracket (locally procured) *2. X4171 S4150	Refer to the Instruction Manual provided with the mount bracket (locally procured) *1

*1 Make sure that the installed mount bracket can support more than 5 times of the total weight of the camera, brackets and anchor bolt itself.
*2 Connect the safety wire to the camera referring to "**Attach the safety wire (accessory)**" mentioned at right, and secure the safety wire on the ceiling using the washer (accessory), spring washer (accessory), and a fixing screw (locally procured).

Attach the safety wire (accessory) X4171 S4150

The following are descriptions of safety wire (accessory) attachment when mounting the camera on the mounting bracket (locally procured).

【1】 **Remove the wire lug fixing screw from the bottom of this product, and attach the safety wire lug (accessory) to the camera with the screw.**
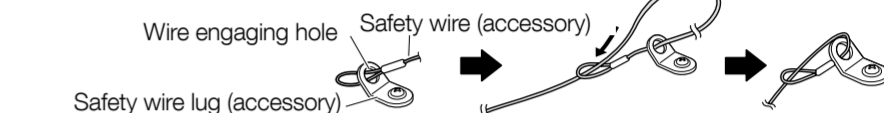
IMPORTANT:
- Attach the safety wire lug (accessory) in the direction that is shown in the enlarged illustration at right.
- Use the wire lug fixing screw to attach the safety wire lug (accessory). When using different length screws, it may damage the camera or cause the camera to fall. (Recommended tightening torque: 0.39 N·m {0.29 lbf·ft})

Wire lug fixing screw
Safety wire lug (accessory)
Center of the camera
Fixing screw hole
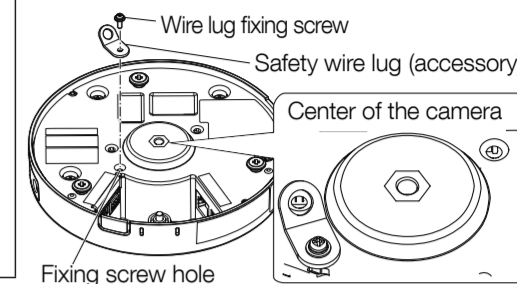
【2】 **Engage the safety wire (accessory) with the wire engaging hole.**
* Camera is not shown in these illustrations.

Wire engaging hole
Safety wire (accessory)
Safety wire lug (accessory)

Processing of side cable access hole

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.
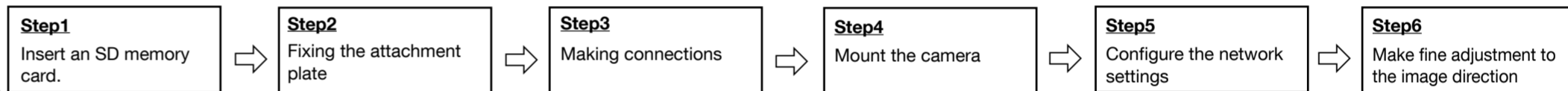
Enclosure
Side cable access hole

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

Side cable access hole
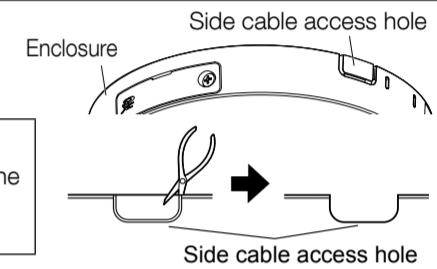
Installation

The installation tasks are explained using 6 steps.

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

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

Step1 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, then insert a slotted head driver or other tool into the notched area on the SD slot cover to remove SD slot cover.**

*Do not use excessive force when removing SD slot cover. Failure to observe this may damage the SD slot cover.

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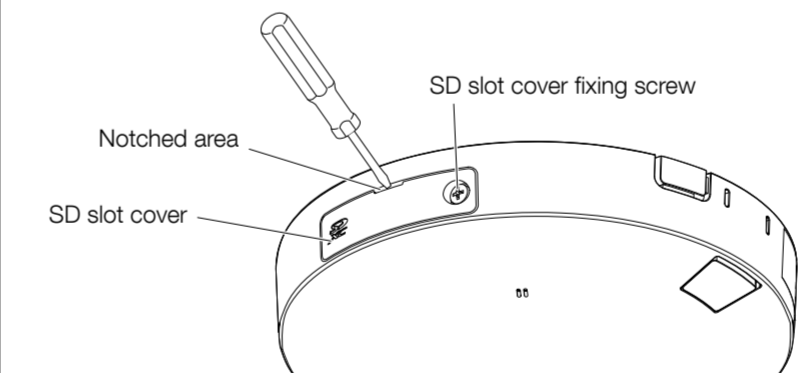
【2】 **Insert an SD memory card into the SD memory card slot straight to the end, and confirm a click sound is heard. (direct the label face of the SD memory card toward the lens side of the camera)**

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 higher parts of the SD guide rib.

【3】 **Close the SD slot cover, and tighten the SD slot cover fixing screw to secure the cover.**
(Recommended tightening torque: 0.39 N·m {0.29 lbf·ft})

Rear end of SD memory card
SD slot cover
SD memory card (label face)
Higher parts of SD guide rib
SD memory card slot
SD slot cover fixing screw
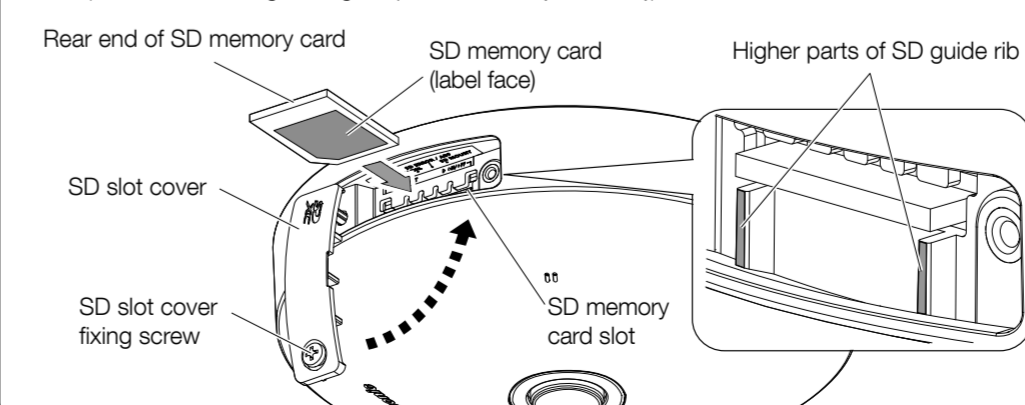
Step 2 Fixing the attachment plate

*There are 2 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】 **Mount the camera on the two-gang junction box using the attachment plate.**

46 mm {1-13/16 inches}
83.5 mm {3-9/32 inches}
Two-gang junction box
Attachment plate (accessory)
Fixing screws for attachment plate: 4 pcs. (M4, locally procured)
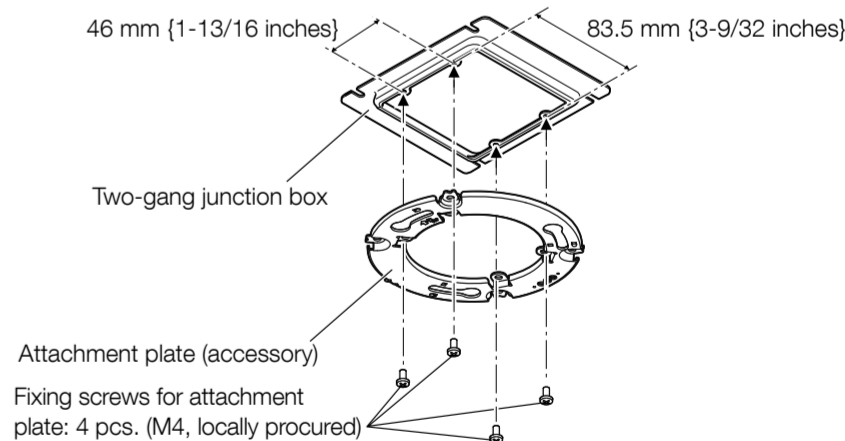
【Type 2】 **Directly mount the camera onto the ceiling or wall using the attachment plate.**

Align the front direction of the template A (accessory) with the direction to be attached (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.

TOP mark
46 mm {1-13/16 inches}
83.5 mm {3-9/32 inches}
ø30 mm {ø1-3/16 inch}
Fixing screws for attachment plate: 4 pcs. (M4, locally procured)
Attachment plate (accessory)
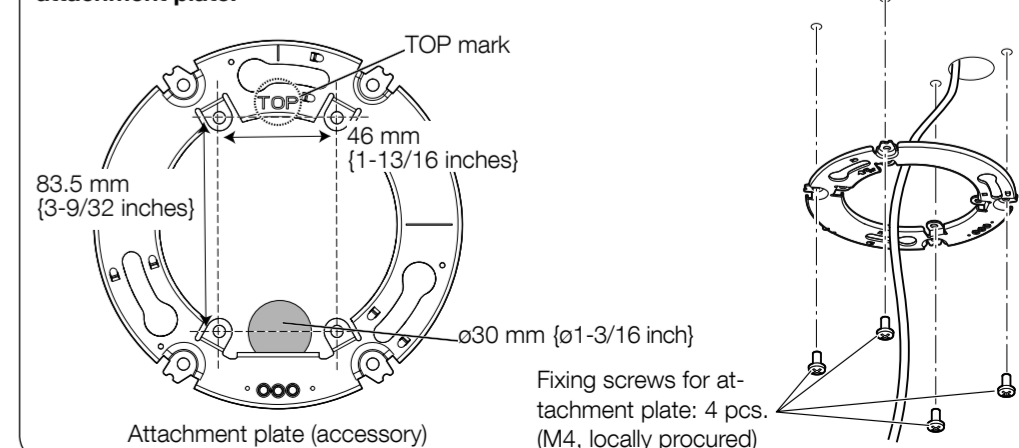
Step 3 Making connections

Preparation for cable connection X4171 S4150

[1] Remove the power cable plug (accessory) and the external I/O terminal plug (accessory) attached to the camera.

External I/O terminal plug

Power cable plug
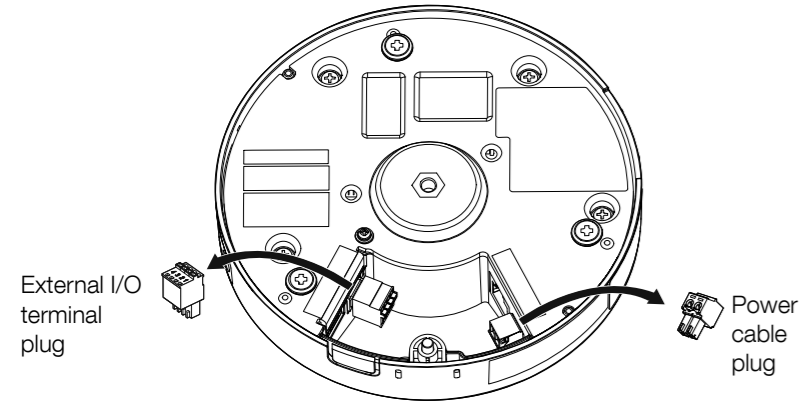
[2] If needed, connect the audio cable (accessory) to the audio cable connector.

*When disconnecting the audio cable (accessory), pull out the audio cable (accessory) while holding down the hook of the connector.

Audio cable connector

Hook of the connector

Audio cable

Cable connection to the camera

■ **Refer to the Important Information on the provided CD-ROM for details about each cable.**
● As necessary, use a cable tie (accessory) to tie the cables together.

[5] External I/O terminal X4171 S4150

[2] Network connector (RJ45)

[1] 12 V DC power supply terminal X4171 S4150

[3] Audio input connector (white)* X4171 S4150

[4] Audio output connector (black)* X4171 S4150

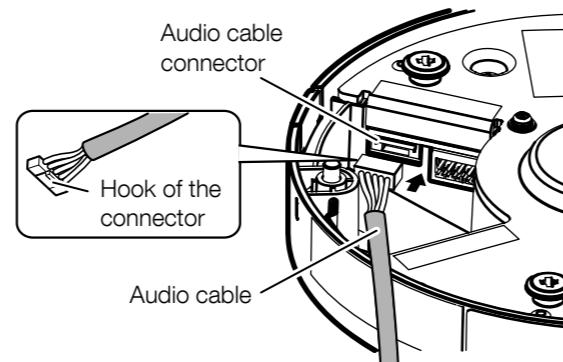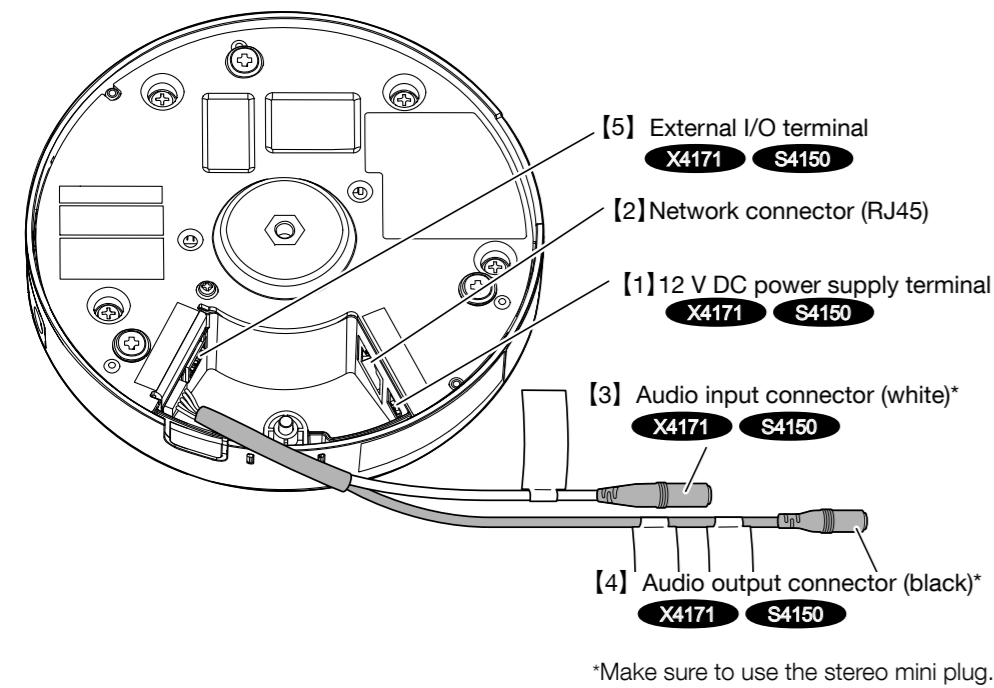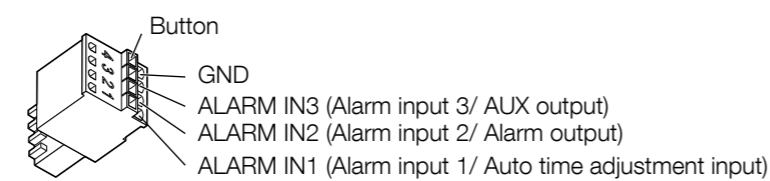*Make sure to use the stereo mini plug.

[5] If needed, connect the alarm input/output cables to the EXT I/O terminal plug (accessory). X4171 S4150

Connect an external device to the external I/O terminal plug (accessory) and fit it into the camera.
①When connecting an external device, remove 8 mm - 9 mm {5/16 inches - 11/32 inches} of the outer jacket of the cable and twist the cable core to prevent the short circuit first.
Specification of cable (wire): 20 AWG - 26 AWG, Single core, twisted
②Push down the button of the desired terminal on the external I/O terminal plug with a ballpoint pen, and release the button when the cable of the external device is fully inserted into the terminal hole.
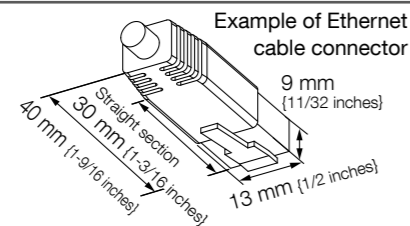③Connect the external I/O terminal plug to the camera.

External I/O terminal plug

Button
GND
ALARM IN3 (Alarm input 3/ AUX output)
ALARM IN2 (Alarm input 2/ Alarm output)
ALARM IN1 (Alarm input 1/ Auto time adjustment input)

Note:
● Do not connect 2 wires or more directly to a terminal. When it is necessary to connect 2 or more wires, use a splitter.
● Check whether the stripped part of the wire is not exposed and is securely connected.
● 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.

Note:
● Since the connector storage section does not have a sufficient space, use a LAN cable that does not exceed the sizes described in the illustrations.

Example of Ethernet cable connector
9 mm {11/32 inches}
40 mm {1-9/16 inches}
30 mm {1-3/16 inches}
Sheath section
13 mm {1/2 inches}

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. X4171 S4150

[1] When connecting an AC adaptor or an external power supply, use the power cable plug (accessory) to connect it to the camera. X4171 S4150

**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).

①Strip 3 mm to 7 mm {1/8 inches to 9/32 inches} from the end of the wire, twist the stripped part of the wire sufficiently to avoid short circuit.
When connecting an external power supply to the camera, use the 16 AWG to 24 AWG single-wired or stranded wired cables.
②Loosen the screw of the power cable plug (accessory), connect the output cable to the power cable plug
③Tighten the screw of the power cable plug (accessory). (Recommended tightening torque: 0.34 N·m {0.25 lbf·ft})
④Connect the power cable plug to the camera.

power cable plug (accessory)
+ (12 V DC)
(GND)
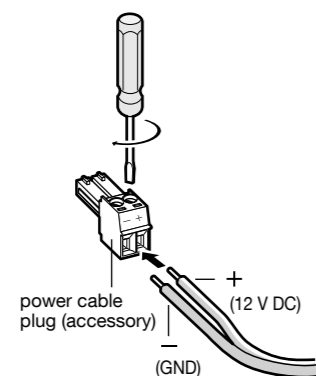
[2] Connect an Ethernet cable (category 5e or better, straight) to the network connector.

[3] If needed, connect a microphone or the line out of an external device to the audio input connector. X4171 S4150

Note:
● The mic input is set to "Internal (built-in mic)" in the default settings of the camera. If you want to change the mic input setting to "External (audio cable)", refer to the Operating Instructions on the provided CD-ROM.

[4] If needed, connect a powered speaker to the audio output connector. X4171 S4150

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.

Step 4 Mount the camera

[1] Align the OPEN mark on the side of enclosure with the tab of the attachment plate, insert 3 attachment mounting screws into the attachment plate, and rotate the camera by approximately 20°. The camera is temporarily secured. (align the LOCK mark center, "I", with the tab of the attachment plate)
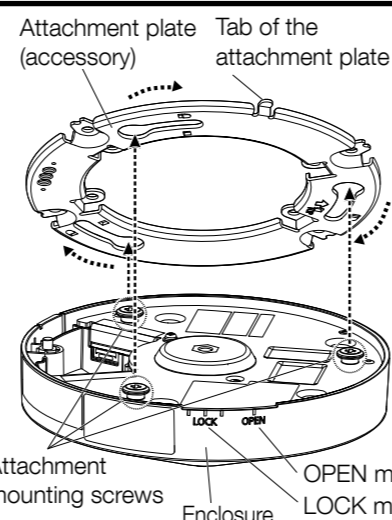
**Note:**
● The image direction can be finely adjusted after completion of the installation. Refer to "**Step 6 Make fine adjustment to the image direction**" for further information on adjustment.

Attachment plate (accessory)
Tab of the attachment plate

Attachment mounting screws
Enclosure
OPEN mark
LOCK mark

[2] Secure the camera.
①Use a slotted head screwdriver to open the camera fixing screw cover.
②Secure the camera by tightening the camera fixing screw.
③Close the camera fixing screw cover.

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})

Camera fixing screw cover

Camera fixing screw
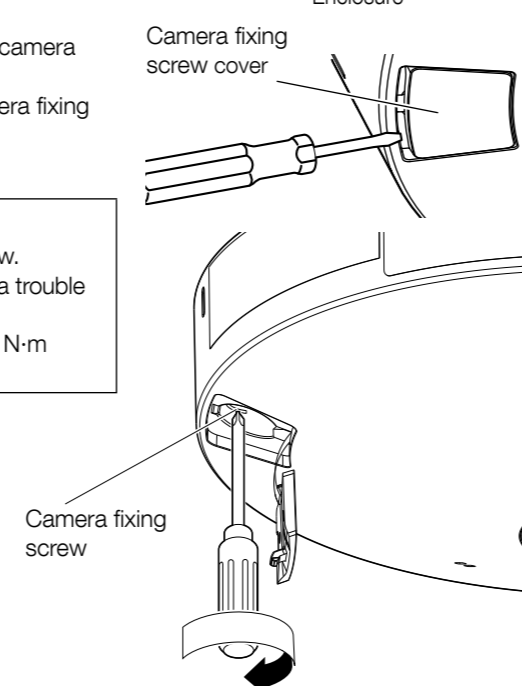
[3] Remove the protection film from the lens.

[4] Turn on power for the camera.

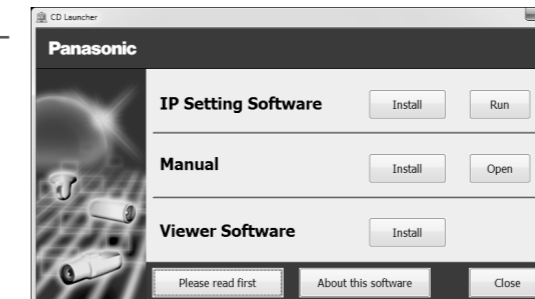## Step 5 Configure the network settings

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

CD Launcher
Panasonic
IP Setting Software   Install   Run
Manual   Install   Open
Viewer Software   Install
Please read first   About this software   Close

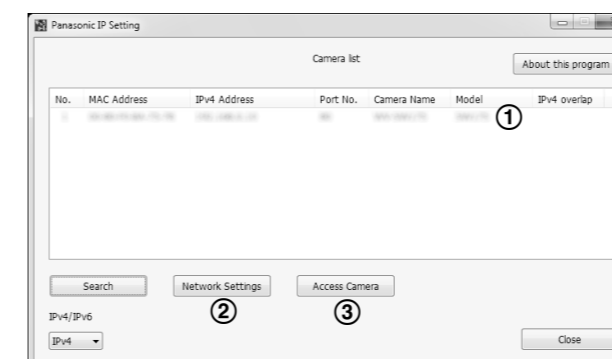**[2] Click the [Run] button next to [IP Setting Software].**
⇒ [Panasonic IP Setting] screen will be displayed.
The MAC Address / IP address of the detected camera will be displayed.

[3] Select the camera you want to configure (①), and click [Network Settings] (②) to chance 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.

Panasonic IP Setting
Camera list   About this program
No.   MAC Address   IPv4 Address   Port No.   Camera Name   Model   IPv4 overlap
①
Search   Network Settings   Access Camera
IPv4/IPv6   ②   ③
IPv4   Close

## 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), and -5° (leftward).

Upper direction of screen

Camera fixing screw

[1] Use a slotted head screwdriver to open the camera fixing screw cover, and then use a cross slot screwdriver to loosen the camera fixing screw.
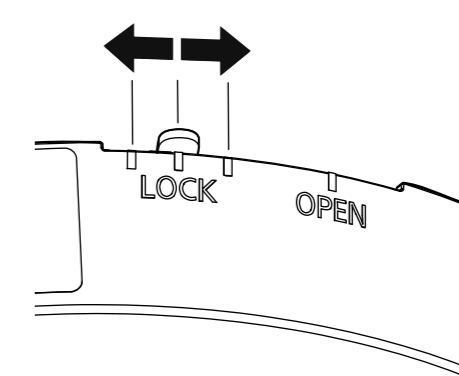
IMPORTANT:
● Loosening the camera fixing screw allows the camera to be in the temporary fixed state.

Camera fixing screw cover

Camera fixing screw
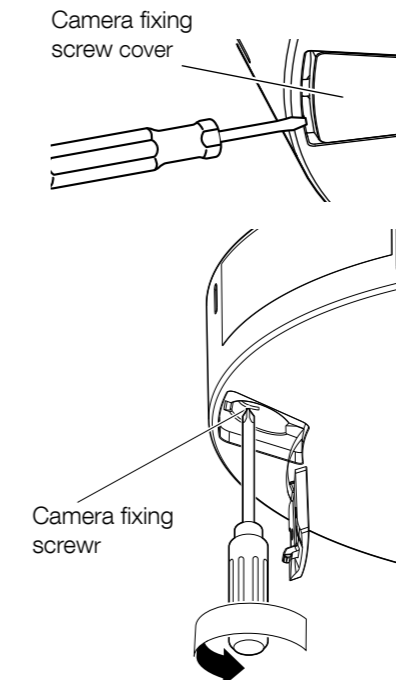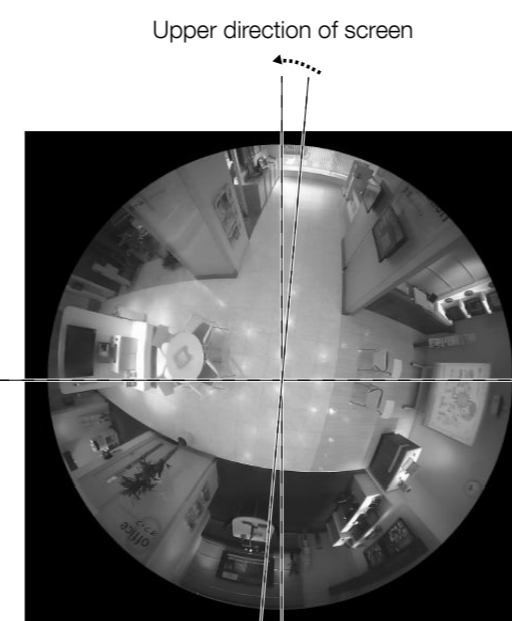
[2] Move the LOCK position of the camera clockwise or counterclockwise to finely adjust the image direction while seeing the captured image on a PC.

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

LOCK   OPEN

[3] Secure the camera by tightening the camera fixing screw, and then close the camera fixing screw cover.

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})

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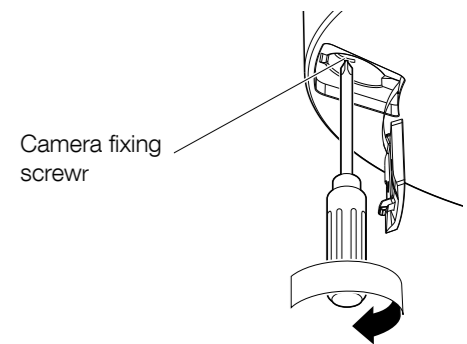
[4] When the administrator registration window is displayed, enter "User name", "Password" and "Retype password" by following the instructions displayed on the screen, and then click the [Set] button.

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.

Administrator registration
Enter the user name and password of the administrator.
User name (1 to 32 characters)
Password (8 to 32 characters)
Retype password
Set

Note:
(1) Distinguish between upper- and lower cases.
(2) Entry of the following is not allowed as a user name: 2-byte characters, and 1-byte symbols " & : ; \
(3) Entry of the following is not allowed as a password: 2-byte characters, and 1-byte symbols " &
(4) For the password, use two or more types of characters from alphabetic characters, numbers, and symbols.
(5) Keep the user name and password at hand so as not to lose.
(6) It is recommended to change the password periodically.

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 X4171 S4150, 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". X4171 S4150
● 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/)