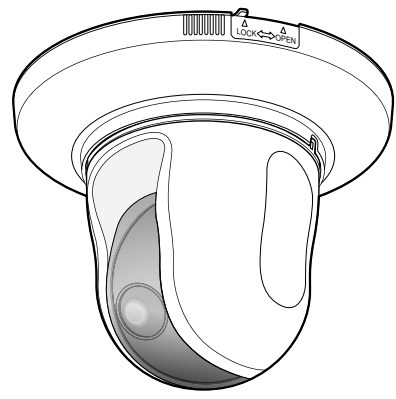


Installation Guide

Included Installation Instructions

Network Camera

Model No. WV-S6130



- 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:

i-PRO Americas Inc.
https://www.i-pro.com/

For Europe and other countries:

i-PRO Co., Ltd. Fukuoka, Japan
https://www.i-pro.com/

i-PRO EMEA B.V. UK Branch
1010 Cambourne Business Park,
Cambridgeshire CB23 6DP

Authorised Representative in EU:
i-PRO EMEA B.V.
Laarderhoogtweg 25, 1101 EB
Amsterdam, Netherlands



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 we shall not respond to any inquiries regarding the contents of the source code.

WARNING:

- To prevent injury, this apparatus must be securely attached to the wall/ceiling in accordance with the installation instructions.
- To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture.
- The apparatus should not be exposed to dripping or splashing.
- 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

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.

About the user manuals

Product documentation is composed of the following documents.

- Installation Guide (this document): Explains installation, cable connections, mounting and removal.
- 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*1..... 1 pc.
IMPORTANT SAFETY INSTRUCTIONS..... 1 pc. Code label*2..... 1 pc.

*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.

*2 This label may be required for network management. Use caution not to lose this label.

The following parts are used during installation procedures.

Camera mount bracket (with safety wire) 1 pc.
Camera fixing screw (M3) 2 pcs. (incl. 1 spare)
Decorative cover..... 1 pc.
Power cable plug*3..... 1 pc.

*3 The power cable plug is attached to the camera.

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. _____
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.

Preparations

Other items that are needed (not included)

Prepare the required parts for each installation method before starting the installation. The following are the requirements for the various installation methods.

Installation method	Mounting screw	Minimum pull-out strength*1
A) Installing the camera to a ceiling that has adequate structural strength Use the camera mount bracket (accessory).	M4 or M6 screws/4 pcs.	196 N {44 lbf}
B) Installing the camera to a ceiling that has inadequate structural strength The area of the ceiling that the camera will be installed to must be sufficiently reinforced, or the optional ceiling mount bracket for the camera (WV-Q105A*2, weight approx. 150 g {0.33 lbs}) must be used.	M10 anchor bolts/2 pcs.	5 times or more of the total weight including the camera
C) Installing the camera embedded to a ceiling that has inadequate structural strength The area of the ceiling that the camera will be installed to must be sufficiently reinforced, or the optional ceiling embedding bracket for the camera (WV-Q159C*2 / WV-Q159S*2, weight approx. 800 g {1.77 lbs}) must be used.	M10 anchor bolts/2 pcs.	5 times or more of the total weight including the camera
D) Installing the camera to a wall Use the wall mount bracket (WV-Q158C*2 / WV-Q158S*2, weight approx. 950 g {2.10 lbs}).	M4 screws/4 pcs.	196 N {44 lbf}

*1 The minimum pull-out strength is the value per screw.

*2 For details on procedure for attaching mount bracket and camera, read the operating instructions of each mount bracket.

IMPORTANT:

- Prepare mounting screws (M4, M6) and anchor bolts to be mounted on a ceiling and wall separately.
- 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.

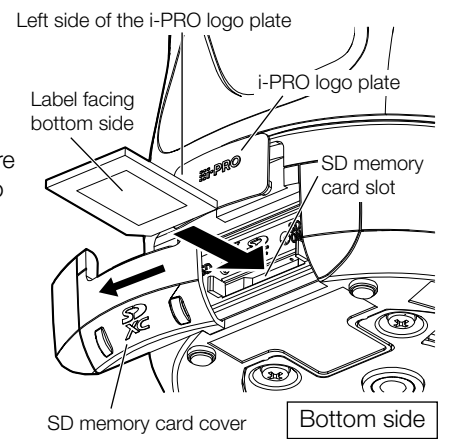
Preparations before installation

[1] Insert an SD memory card (locally procured) as occasion demands.

* SDXC/SDHC/SD memory card is described as SD memory card.

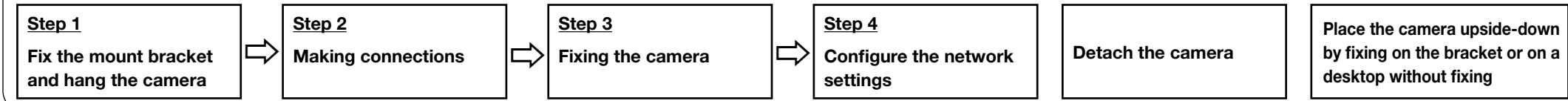
Insert an SD memory card following the procedure shown below. For the detailed procedure, refer to Important Information on the provided CD-ROM.

- ① As shown in the illustration to the right, push the left side of the i-PRO logo plate to unlock, then slide the SD memory card cover in the direction of the arrow to open.
- ② Insert an SD memory card fully into the SD memory card slot, and then push the memory card straight into the slot until a click is heard. (The label should face the bottom side of the camera)
- ③ Shut the SD memory card cover and lock the cover by pushing the i-PRO logo plate.



Installation

The installation tasks are explained using 4 steps.



Step 1 Fix the mount bracket and hang the camera

This Installation Guide explains the above **A) "Installing the camera to a ceiling that has adequate structural strength"**. When you use mount brackets (optional accessory), read their operating instructions.

[1] Process the installation surface.

Decide the attachment position and bore holes for screws or anchors on the ceiling and a hole for wiring (ø25 mm {31/32 inches}); See the lower-right illustration) as occasion demands.

- ◆ If fixed with M4 screws
Fixed dimension:
83.5 mm × 46 mm
{3-9/32 inches × 1-13/16 inches}

- ◆ If fixed with M6 screws
Fixed dimension:
110 mm × 64 mm
{4-5/16 inches × 2-17/32 inches}

Note:

- The center point of the camera mount bracket (accessory) should be more than 100 mm {3-15/16 inches} away from obstacles such as a wall.
- The camera mount bracket (accessory) should be installed with its "FRONT" mark in the i-PRO logo direction (shooting direction) after installation.

[2] Attach the camera mount bracket using 4 fixing screws (M4 or M6; locally procured).

Minimum pull-out strength: 196 N {44 lbf} (per 1 pc.)

* The upper-right figure shows an illustration with the M4 screws used.

IMPORTANT:

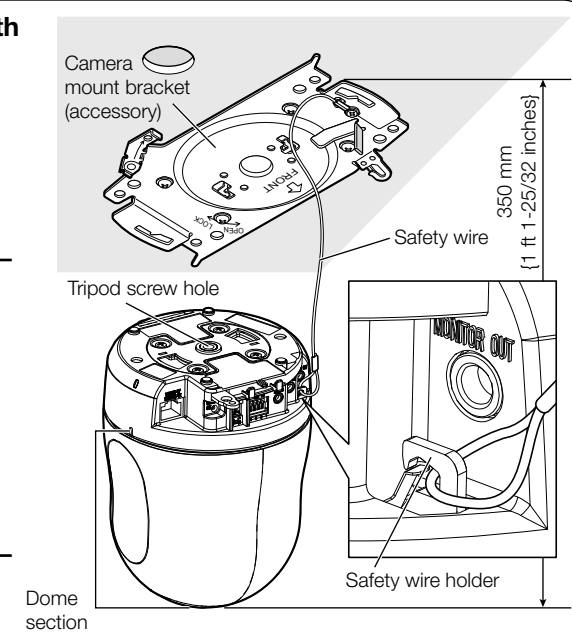
- Use the dedicated camera mount bracket (accessory) if installing the camera to a ceiling.
- Do not use the tripod screw hole to mount on the ceiling since the fall prevention measure is unavailable. (See the illustration of [3] on the upper-right)

[3] Attach the safety wire fixed with the camera mount bracket to the camera.

After attaching the safety wire to the camera, confirm that the ring part at the end of the safety wire is securely hooked on the safety wire holder.

Note:

- The camera is not fixed. Take care not to hit the camera against periphery (especially the dome section).
- Retain a work space of 350 mm {1 ft 1-25/32 inches} or more from the ceiling when you hang the camera from the ceiling.

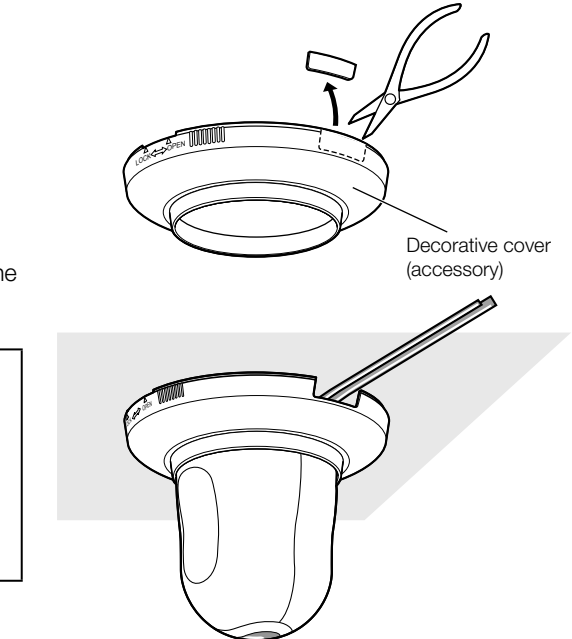


[4] Process the decorative cover (accessory) as necessary.

Remove the cutout part on the decorative cover when directly attaching the cable to a ceiling with open wiring. Install the camera and wire through the cutout part of the decorative cover as shown in the illustration below when you finally fit the decorative cover.

IMPORTANT:

- To prevent an injury and protect the cable, finish the side through hole for the cable with a file so that it does not become sharp.
- Make sure that no cable is pinched by the decorative cover when installing it.

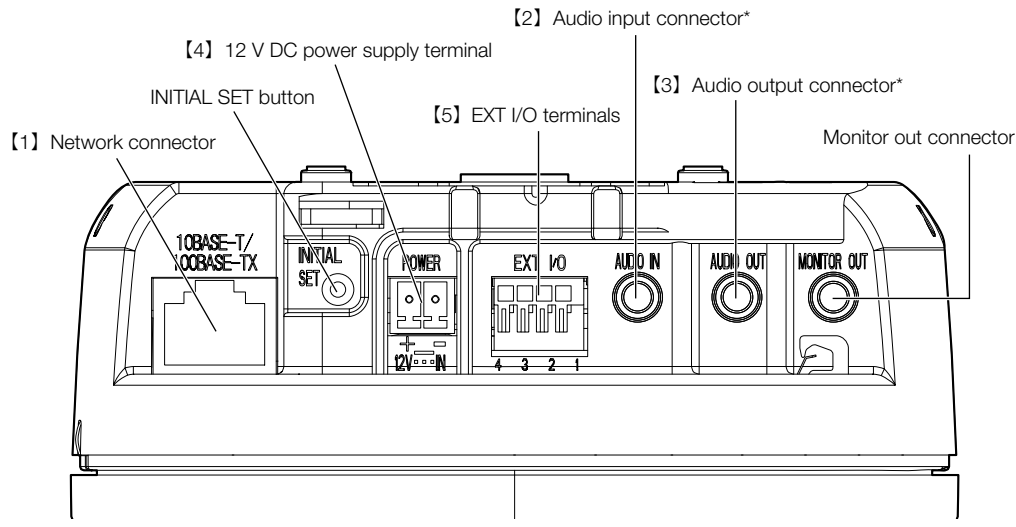


Step 2 Making connections

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

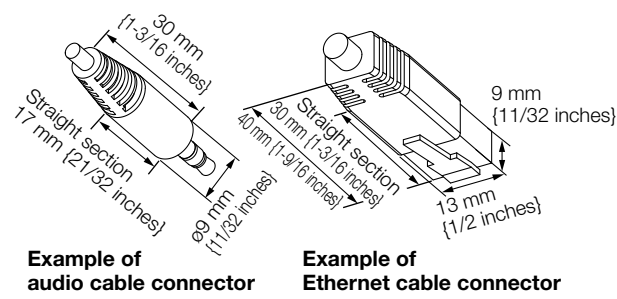
● As necessary, use a cable tie (locally procured) to tie the cables together.

* Make sure to use the stereo mini plug.



Note:

- Since the space around the connector is limited, use audio cables and an Ethernet cable that do not exceed the sizes described in the illustrations.



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.

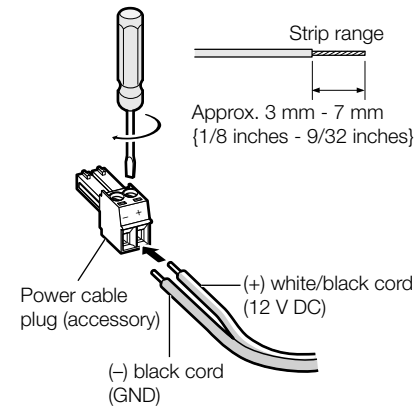
[1] Connect an Ethernet cable (category 5e or better, straight) to the network connector.

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

[3] If needed, connect a powered speaker to the audio output connector.

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

- Remove 3 mm - 7 mm {1/8 inches - 9/32 inches} of the outer jacket of the cable for the AC adaptor, expose the wire more and twist the stripped part of the wire sufficiently. When connecting an external power supply to the camera, use the 16 AWG to 24 AWG single-wired or stranded wired cables.



- Loosen the screws of the power cable plug and insert the wire for the AC adaptor into the plug.
- Tighten the screw of the power cable plug. (Recommended tightening torque: 0.34 N·m {0.25 lbf·ft})
- Install the power cable plug into the camera.

Caution:

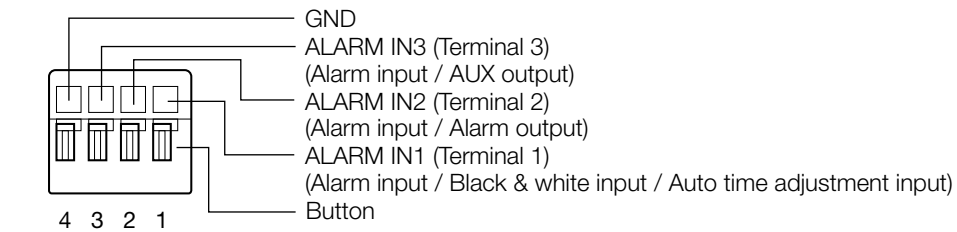
- A READILY ACCESSIBLE DISCONNECT DEVICE SHALL BE INCORPORATED TO THE EQUIPMENT POWERED BY 12 V DC POWER SUPPLY.
- ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER SOURCE (IEC/EN/UL/CSA 60950-1).

[5] If needed, connect the alarm input/output cables to the EXT I/O terminals.

Connect the cables of external devices to the EXT I/O terminal.

- 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
- Push 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.

External I/O terminal



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.

Step 4 Configure the network settings

Download and start [IP Setting Software] <Control No.: C0123> or [i-PRO Configuration Tool (iCT)] <Control No.: C0133> on our technical information support site (https://i-pro.com/global/en/surveillance/training_support/support/technical_information), and connect to the network.

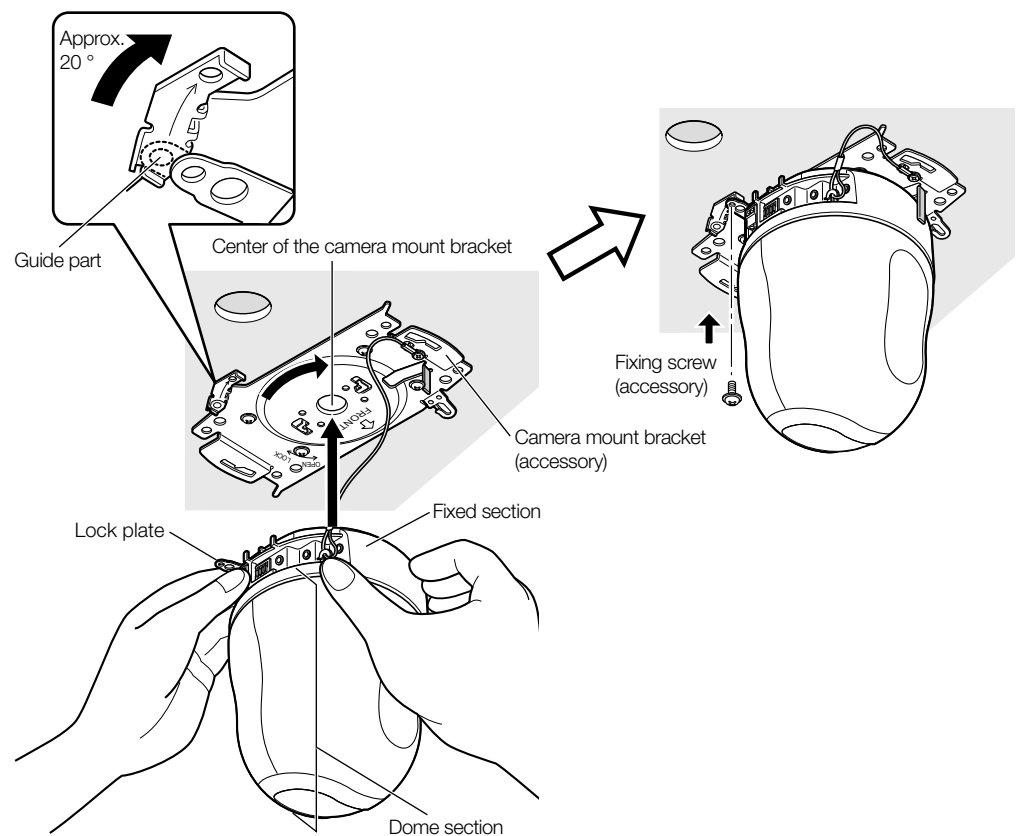
Step 3 Fixing the camera

[1] Mount the camera onto the camera mount bracket (accessory) and fix it temporarily.

- Remove the protective tube (for protection during transportation) covering the lock plate.
- Fit the lock plate of the camera onto the guide part of the camera mount bracket, insert the camera with the center of the camera (tripod screw hole) at the center of the camera mount bracket, rotate the camera clockwise by 20° as seen from the bottom while pushing the camera against the camera mount bracket and fix it temporarily.

IMPORTANT:

- When mounting the camera onto the camera mount bracket, hold the fixed section of the unit. Mounting the camera while holding the dome section may result in malfunction.



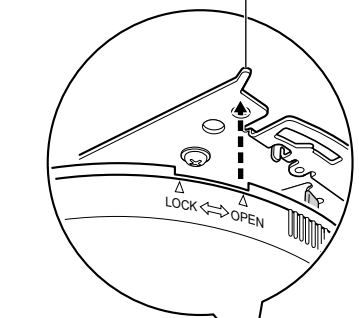
[2] Fix the camera on the camera mount bracket using the camera fixing screw (M3, accessory).

Recommended tightening torque: 0.68 N·m {0.50 lbf·ft}

* Wires connected to the camera are omitted in the illustrations.

[3] Fit the "OPEN" of the decorative cover onto the camera mount bracket protrusion and insert the decorative cover straight.

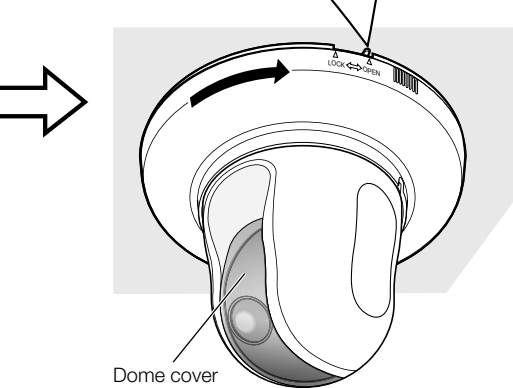
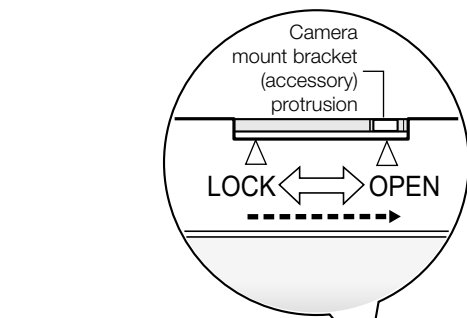
Camera mount bracket (accessory) protrusion



[4] Rotate the decorative cover clockwise as seen from the bottom until the "LOCK" of the decorative cover reaches the camera mount bracket protrusion to fix the decorative cover.

IMPORTANT:

- Make sure that no cable is pinched by the decorative cover.



[5] Remove the cover film from the dome cover after the installation is completed, and then turn on the camera.

IMPORTANT:

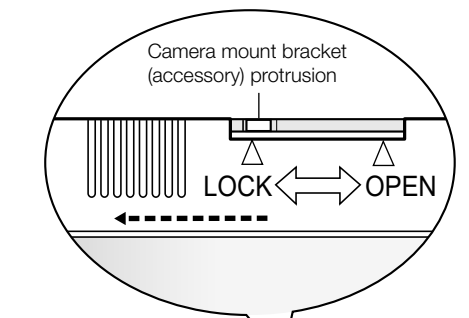
- Once the camera is turned on, it starts to be initialized and panning/tilting/zoom/focus automatically operate. Do not touch the dome section with your hand while the camera is rotating.

Detach the camera

[1] Rotate the decorative cover (accessory) counterclockwise as seen from the bottom until the "OPEN" reaches the camera mount bracket (accessory) protrusion to remove the cover.

IMPORTANT:

- Hold the decorative cover with both hands when removing it.

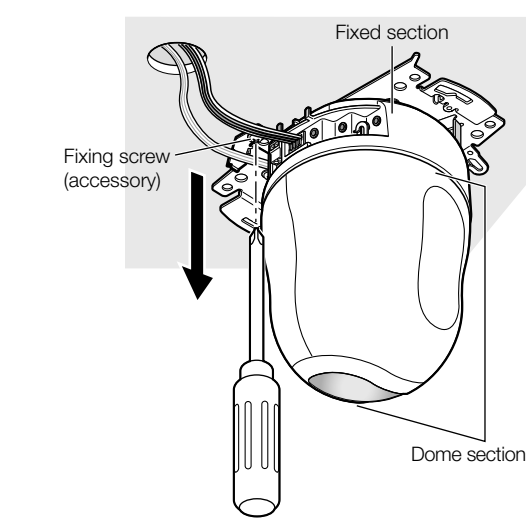


[2] Detach the 12 V DC power cable plug (accessory) or the Ethernet cable from the camera (When using PoE), and then turn off the power of the camera.

IMPORTANT:

- Before turning off the camera power, hold down the SD ON/OFF button (for about 2 seconds) inside the SD memory card cover and make sure that the SD MOUNT indicator is turned off. If you turn off the camera power while the SD MOUNT indicator is lit or flashing, the recorded data may be corrupted or damaged.

[3] Remove the fixing screw (M3, accessory) that is fixing the camera on the camera mount bracket.



[4] Rotate the fixed section by approx. 20° counterclockwise to detach the camera from the camera mount bracket.

IMPORTANT:

- When detaching the camera from the camera mount bracket, hold the fixed section of the unit. Detaching the camera while holding the dome section may result in malfunction.

Note:

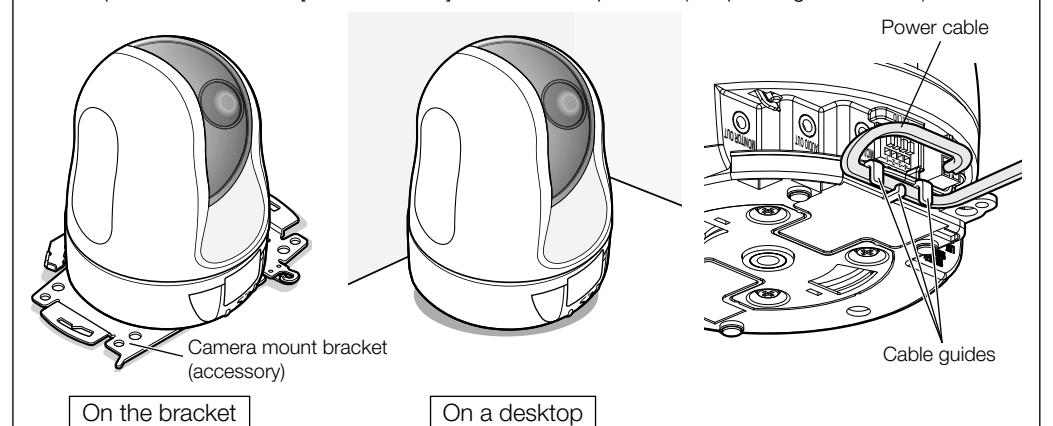
- Take care not to hit the camera (especially the dome section) against surrounding objects as the camera is unfixed.

[5] Disconnect the remaining connected cables from the camera.

[6] Detach the safety wire from the camera and take off the camera from the camera mount bracket.

Place the camera upside-down by fixing on the bracket or on a desktop without fixing

- When using the camera upside-down by fixing on the bracket, fit it into the camera mount bracket and fix it to prevent a fall or preset positional displacement. If necessary, attach the decorative cover to the camera.
- When using the camera upside-down on a desktop, place the camera on a level place not subject to vibrations. Ensure that the camera does not fall.
- When using the camera upside-down by fixing on the bracket or on a desktop, select "On (desktop)" for "Upside-down" on the [Cam. Function] tab of the setup menu. (☞ Operating Instructions)



On the bracket

On a desktop

Note:

- When using the camera upside-down on a desktop with an external power supply, pass the power cable through the cable guides (3) to prevent the AC adaptor plug from coming out.

■ The status indicator will light or blink as follows depending on the camera status. (Refer to the procedure [1] illustration of "Detach the camera".)

Operation status	Indicator status	
When the power is turned on	Before the network connection is established	Lights orange → Lights off → Blinks orange → Lights orange
	When the network connection is established	Lights orange → Lights off → Blinks orange → Blinks green → Lights green
During the standby or connection	Cable is not connected	Lights orange
	Cable is connected	Lights green
During the upgrade process	Blinks orange	
Initialization (When the network connection is established)	Lights orange → Lights off → Blinks orange → Lights orange → Blinks orange → Blinks green → Lights green	
Port forwarding error caused by the UPnP function	Blinks orange (in 2 seconds intervals (on for 1 second/off for 1 second))	
Trouble happening on the camera	Blinks red	
Failure in writing data on the SD memory card	Lights red	