

Installation Guide

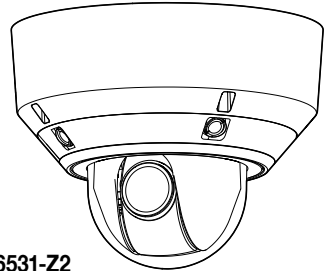
Included Installation Instructions

Network Camera

For professional use only

Outdoor use

Model No. **WV-X86531-Z2**
WV-X86530-Z2



WV-X86531-Z2

About the user manuals

Product documentation is composed of the following documents.

- **Installation Guide (this document):** Provides information about "Precautions", "Precautions for installation" and the installation method.
- **Web Guide (refer to the the link on the following product information website):** Includes installation videos, basic functions, and basic operation methods for this device.
- **User manual (Refer to the link on the following product information website):** This section describes the software operating instructions common to each model.
<https://i-pro.com/global/en/surveillance/training-support/documentation-database-list>



"<Control No.: C****>" used in these documents should be used to search for information on our technical information website (<https://i-pro.com/global/en/surveillance/trainingsupport/support/technical-information>) and will guide you to the right information.



- Before attempting to connect or operate this product, please read these instructions carefully and save Important Safety Instructions leaflet for future use.
- microSDXC/ microSDHC/ microSD memory card is described as microSD memory card.
- 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.

i-PRO Co., Ltd.

<https://www.i-pro.com/>

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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 authority.

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.

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

Supplier's Declaration of conformity

Trade name : i-PRO
 Model No. : WV-X86531-Z2
 WV-X86530-Z2



Responsible Party :
 i-PRO Americas Inc.
 8550 Fallbrook Drive, Suite 200 Houston,
 Texas 77064
 Support Contact: 1-800-513-5417

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. _____

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For Canada _____

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

Méthode d'installation	Vis de fixation recommandée	La capacité de traction minimale requise
Monter directement la caméra vidéo sur la surface d'installation.	M4 x 16 mm {5/8 pouces} / 2 él.	196 N {44 lbf}
Installer la caméra vidéo sur une boîte de groupe/boîte de jonction double.		
Installer la caméra vidéo à l'aide de la platine de fixation d'installation exclusivement conçue.	Se référer au manuel d'utilisation de chaque platine de fixation.	

* La longueur de la vis est un exemple lors de l'installation de la caméra au plafond ou sur un mur robuste d'une épaisseur de 20 mm {25/32 pouces} ou plus.

WARNING:

- Operation of this product in a residential environment could cause radio interference.

Caution:

- The DC power supply connected to the camera must be in the same building.
- Do not connect this device to a network that is directly connected to an outdoor lead-in cable from an external facility.
- This product has no power switch. Be sure to install disconnect devices such as a circuit breaker to shut down the main power of power supplying equipment to this product.
- Before attempting to connect or operate this product, please read these instructions carefully.

Notice:

- This product is not suitable for use in locations where children are likely to be present.
- Do not install this product in locations where ordinary persons can easily reach.
- This product is a professional equipment.
- For information about screws and other parts required for installation, refer to the corresponding section of this document.

■ ■ ■ ■ : Direct current symbol

Precautions

In order to prevent harm to people and damage to property, it explains what must be observed without fail. The safety statements common to all i-PRO network camera models are posted on the website linked from the twodimensional barcode on the right. Please be sure to confirm it.

<https://i-pro.com/global/en/surveillance/training-support/support/library/safety-instructions>

**■ Do not install this product in a restricted or prohibited environment.**

Failure to observe this may result in injury, accident, or malfunction due to falling.

Please check the safety precautions common to all models on the website above and the installation precautions in the Installation Guide.

■ Refer installation work to the dealer.

Installation work requires technique and experience. Failure to observe this may cause fire, electric shock, injury, or damage to the product. Be sure to consult the dealer.

■ Install the product accurately and securely on an installation area in accordance with the installation instructions.

Failure to observe this may cause injury or accidents.

■ Take measures of protection against this product falling.

Failure to observe this may cause a drop resulting in injury.

Securely fix the product to the installation surface using screws or anchors. If the fall prevention wire is included, be sure to install it.

■ 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 property.

In this case, turn the power off immediately and contact qualified service personnel for service.

■ Conduct periodic inspections.

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.

Be sure to turn off the power before inspection or maintenance.

Precautions for installation

i-PRO Co., Ltd. assumes no responsibility for injuries or property damage resulting from failures arising out of improper installation or operation inconsistent with this documentation.

■ **In order to prevent injury, the product must be securely mounted to an installation surface according to Installation Guide.**

■ **Installation area for this product**

Select an appropriate place for the installation area (such as a strong installation surface) in your particular environment.

- Make sure that the installation area is strong enough to hold this product, such as a concrete ceiling.
- Install the camera in the foundation area of the architecture or where sufficient strength is assured.
- Do not mount the product on a plaster board or a wooden section because they are too weak. If the product is unavoidably mounted on such a section, the section shall be sufficiently reinforced.

■ **Mounting method for this product.**

This product is designed to be used as a pendant mount camera. If the product is mounted on a desktop or at a slant, it may not work correctly and its lifetime may be shortened.

■ **Do not place this product in the following places**

- Locations where a chemical agent is used such as a swimming pool
- Locations subject to moisture or oil smoke such as a kitchen
- Locations that have a specific environment that is subject to an inflammable atmosphere or solvents
- Locations where a radiation, an X-ray, a strong radio wave or a strong magnetic field is generated
- Locations near coasts directly subjected to sea breezes, or locations subject to corrosive gases such as from hot springs, volcanic regions, etc.
- Locations where the temperature is not within the specified range
- Locations subject to vibrations, such as on vehicles, marine vessels, or above product lines (This product is not designed for on-vehicle use.)
- Locations subject to condensation as the result of severe changes in temperature such as near the outdoor unit of an air conditioner.
- Locations near rubber products containing sulfur (packing, rubber feet, etc.)

■ **Screw tightening**

Do not use an impact driver. Use of an impact driver may damage the screws or cause tightening excessively.

■ **About reflection of light**

A ghost may appear on the screen depending on the incident angle of external light.

- Refer to our technical information website <Control No.: C0109> for image examples and measures to take.

■ **Take notice of humidity**

Install this product when the humidity is low. If installation is performed when it is raining or in very humid conditions, the inside may be affected by humidity, causing mist-over inside the dome cover.

■ **Protection from lightning**

When cables are used outdoors, there is a chance that they may be affected by lightning. In such a case, install a lightning arrestor close to the camera, and make the length of the network cable between the camera and lightning arrestor as short as possible to prevent the camera from being affected by lightning. Refer to our technical information website <Control No.: C0121>

■ **When noise disturbance may happen**

Noise may appear in video or audio near a strong electric field from a TV or radio antenna, motors and transformers, or a strong electric field/magnetic field from a power line (lamp line) of AC100 V or more. Conduct the power distribution work to keep 1 m {3.28 feet} away from them or conduct the electric conduit work using metal pipes. (Be sure to make ground connection of the metal pipes.)

■ **Equipment classification and power source indication label**

Refer to the indication label on the bottom side of this unit for the equipment classification, power source, and other information.

■ **About static electricity**

Before installing or removing this product, be sure to touch metal objects to discharge static electricity from your body.

Specifications

Power source *1:	PoE++ (IEEE802.3bt compliant)
Power consumption *1:	PoE ++ DC54V: 660 mA / approx. 35.6W (Class 5 device)
Operating environment	
Ambient operating temperature:	-40 °C to +55 °C *2 {-40 °F to +131 °F} (Power On range: -20 °C to +55 °C {-4 °F to +131 °F})
Ambient operating humidity:	0 % to 100 % (no condensation)
Storage environment	
Storage temperature:	-30 °C to +60 °C {-22 °F to +140 °F}
Storage humidity:	10 % to 95 % (no condensation)
Waterproof *2:	IP67/ IP66 (IEC 60529), Type 4X (UL50E), NEMA 4X compliant
Shock resistance:	IK10 (IEC 62262)
Wind resistance:	Up to 40 m/s {approx. 89 mph}
Dimensions:	Maximum diameter: ø250 mm × 195 mm (H) {ø9-27/32 inches × 7-11/16 inches (H)} Dome radius: 63.5 mm {2-1/2 inches}
Mass:	Approx. 4.0 kg {8.83 lbs}
Finish:	Main body: Aluminum die cast, i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Dome cover: PC resin, Clear PC resin, Clear (with ClearSight coating) (N) PC resin, Smoke (G)
Others:	Tamper-resistant enclosure*3

*1 Refer to our technical information website <Control No.: C0106> for further information about Power source and Power consumption information.

*2 Only when installation work is properly performed according to the Installation Guide and appropriate waterproof treatment is performed.

*3 Component that has a structure on which the screws that are accessible after installation cannot be screwed or unscrewed using an ordinary screwdriver.

Optional accessories



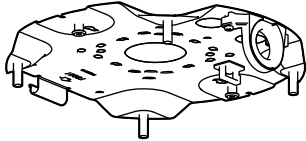

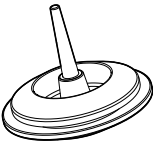
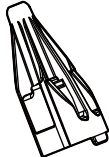
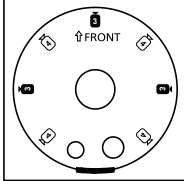
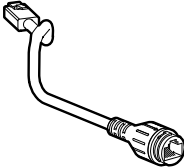
The latest information → Technical information website “Accessory Selector”
<Control No.: C0501>

Troubleshooting

Before requesting service, refer to “Troubleshooting” of Web Guide. Then, confirm the trouble.

Standard accessories

Important Safety Instructions 1 pc.

 <p>Attachment plate 1x</p>	 <p>Bit 1x (Hex wrench, screw size 6.35 mm {1/4 inches} T20)</p>	 <p>Grommet 2x (of them, 1 for spare)</p>
 <p>RJ45 cap 1x</p>	 <p>Template 1x</p>	 <p>RJ45 Ethernet cable for easy kitting*2 1x</p>

*2 The RJ45 Ethernet cable for easy kitting is attached to the camera.

Other items that are needed (not included)

- Mounting screws

Installation method	Recommended screw ^{*1}	Minimum pull-out strength ^{*2}
Directly mount : Directly mount the camera onto the installation surface	M4 × 16 mm {5/8 inches} × 4 pcs.*3	196 N {44 lbf}
Gangbox/ Junction box : Mount the camera to a two-gangbox/ junction box.		
Mount the camera using the exclusively designed mount bracket.	Refer to the operating instructions of each bracket.	

*1 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.

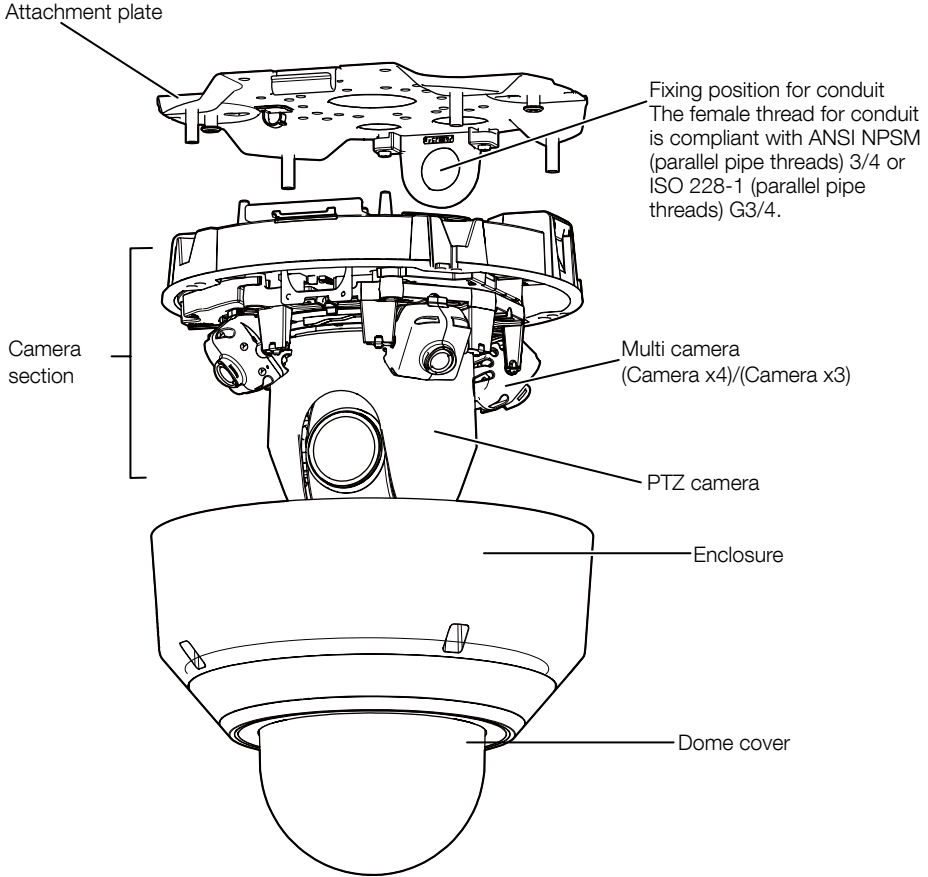
*2 This value indicates the minimum pull-out strength required value per screw. For information about the minimum pull-out strength, refer to our technical information website <Control No.: C0120>.

*3 The screw length is an example when installing the camera on a robust installation surface with a thickness of 20 mm {25/32 inches} or more.

- Ethernet cable with RJ45 plug (category 5e or better, straight, all 4 pairs (8 pins))

Installation Procedure

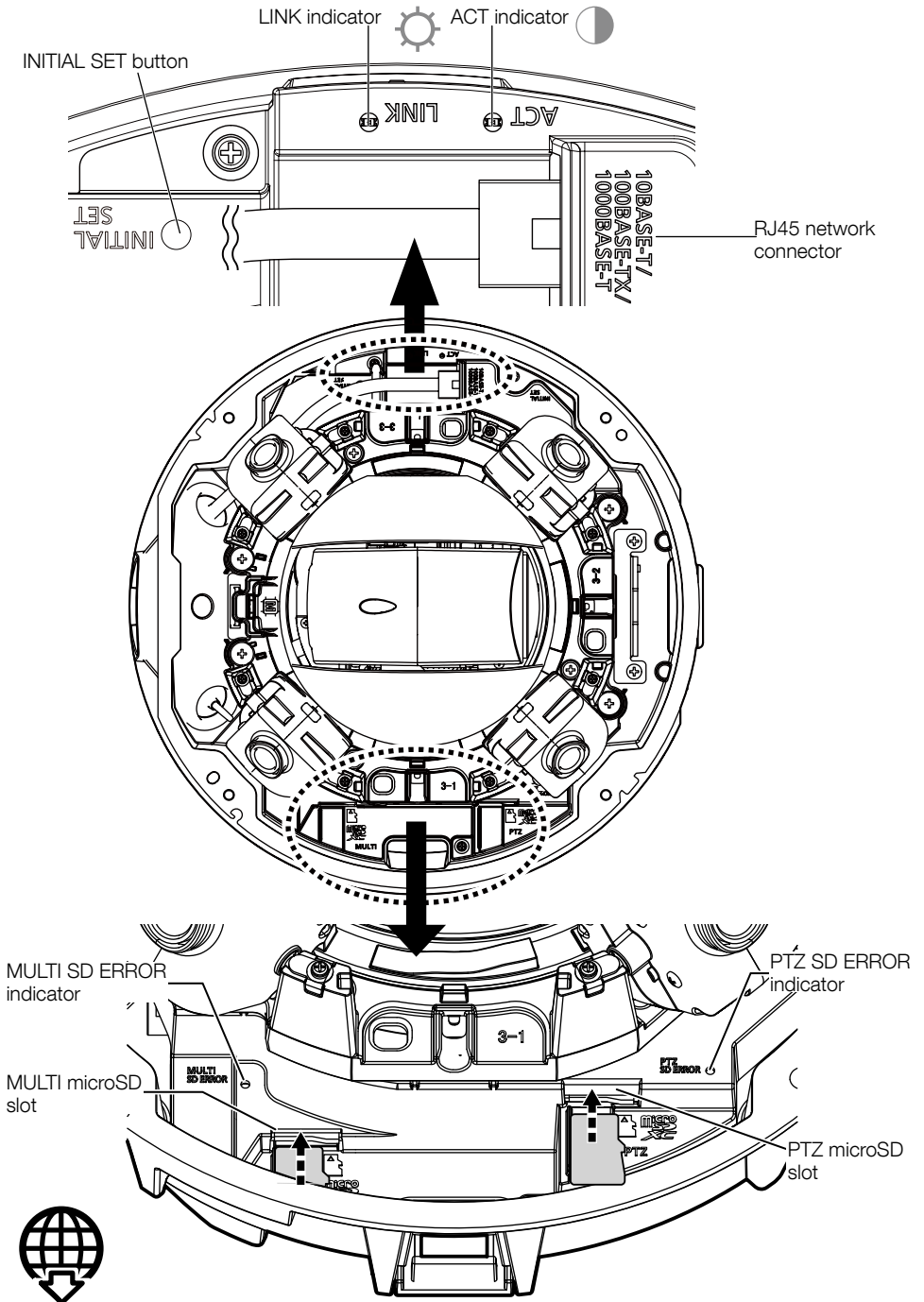
Parts and functions



: Lights : Blinks : Lights off



- User manual
- All LEDs forced to turn off

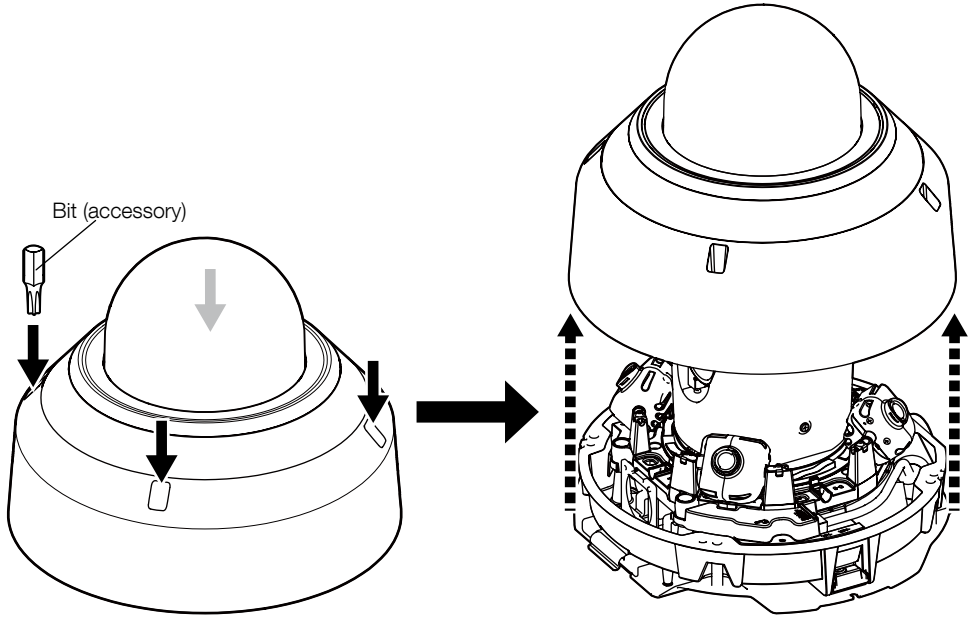


- Refer to the “Initialize” in the Web Guide.
- Use a microSD memory card dedicated to i-PRO cameras.

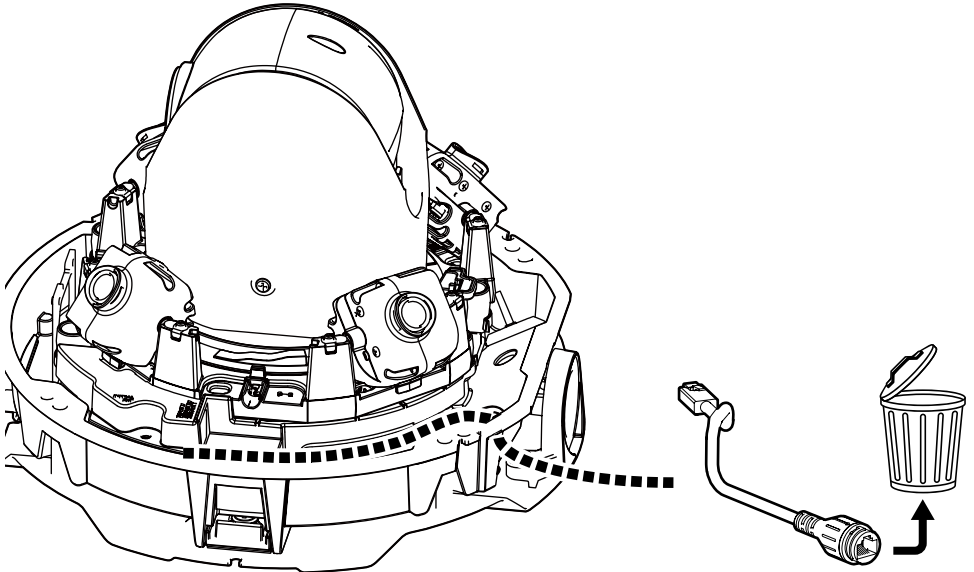
Step 1

Preparations

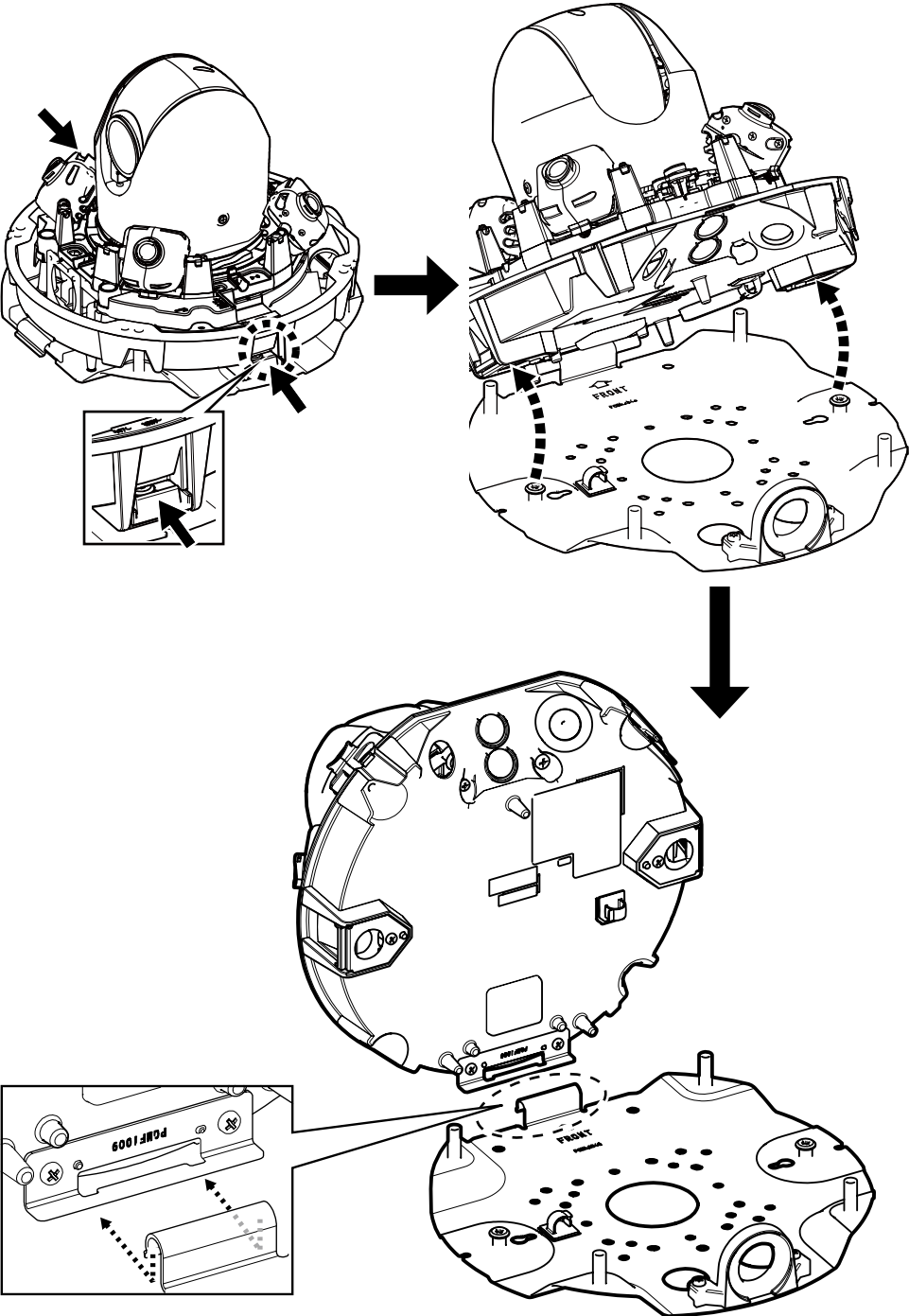
■ Remove the enclosure



■ Remove the RJ45 Ethernet cable for easy kitting



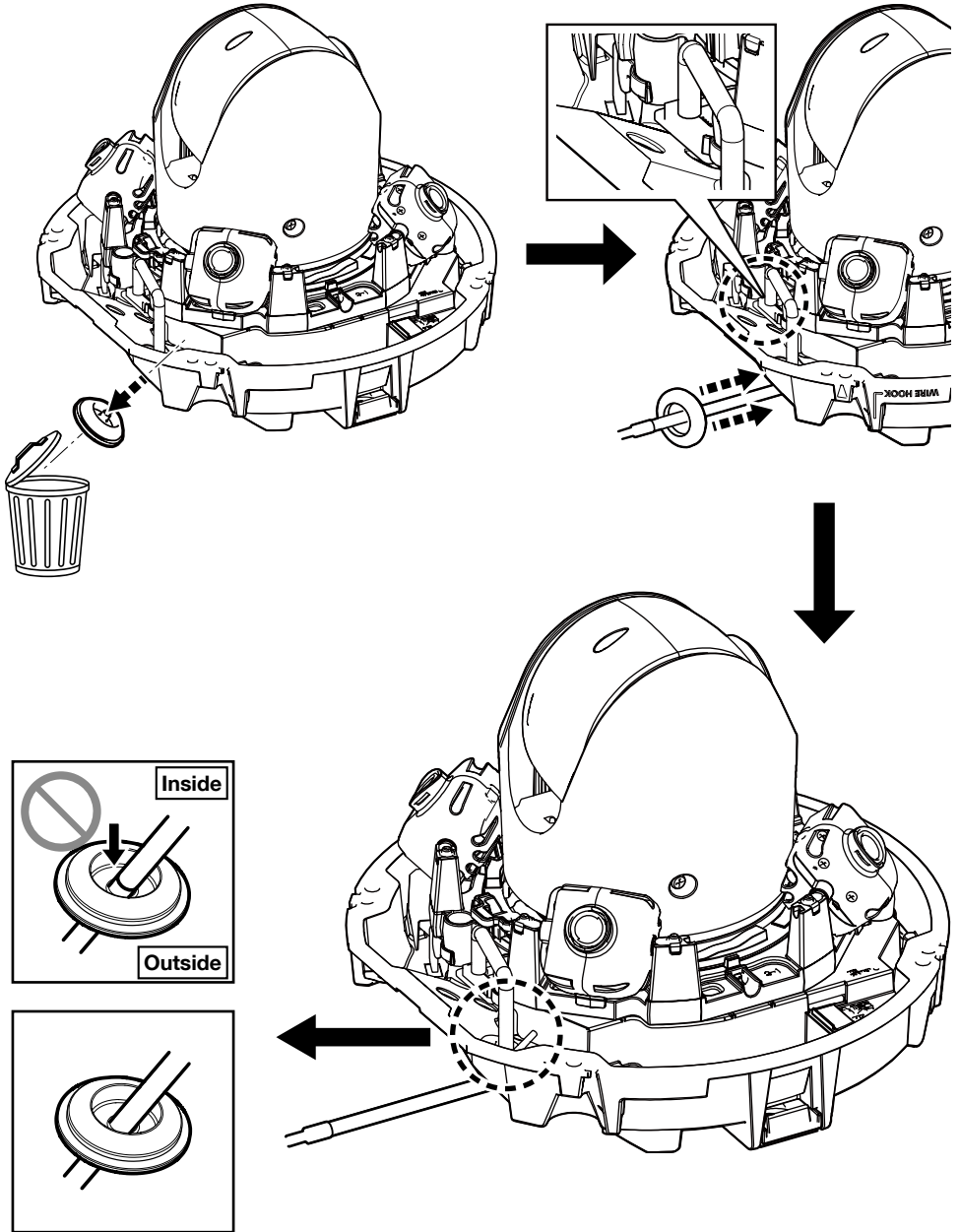
■ Remove the camera from the attachment plate



Step 1

Preparations (Continued)

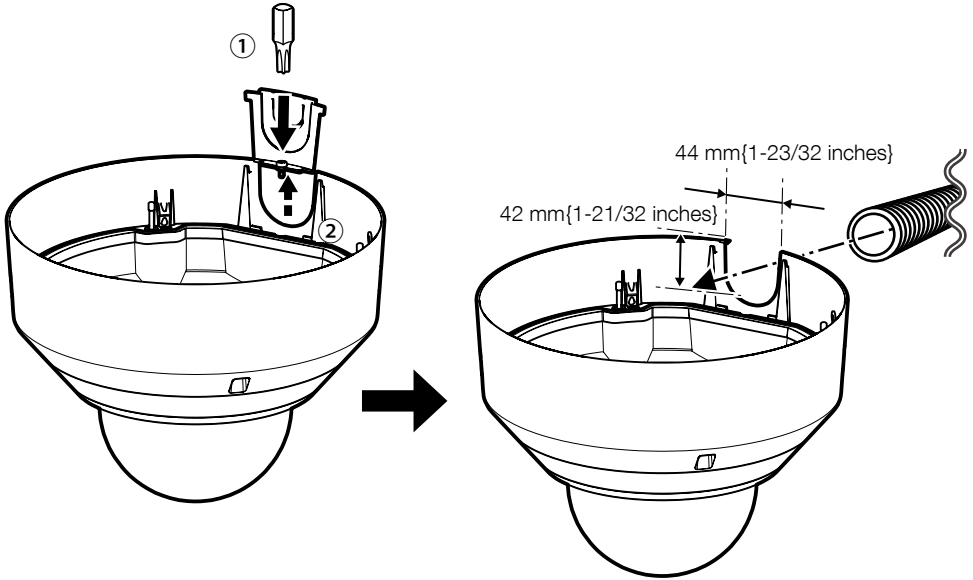
■ When using an I/O cable (WV-QCA501A)



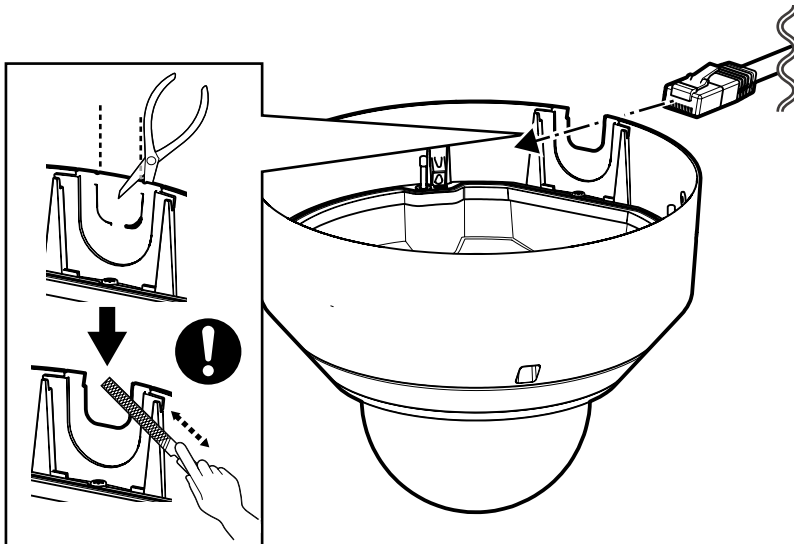
■ When wiring on the side

■ Web Guide

Pipe connection



Wiring from the side



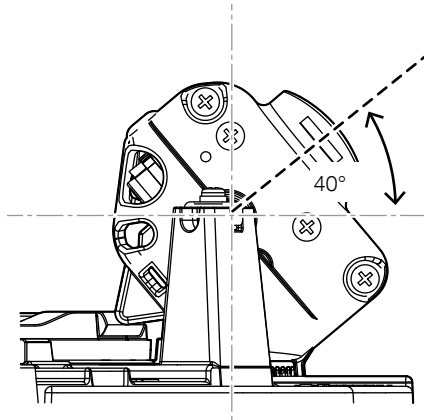
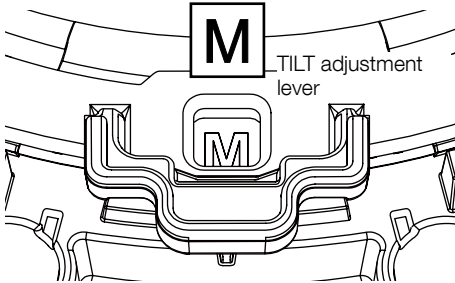
■ Adjust the camera tilt angle

■ Web Guide

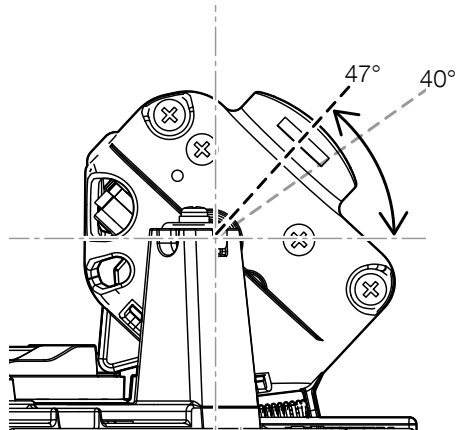
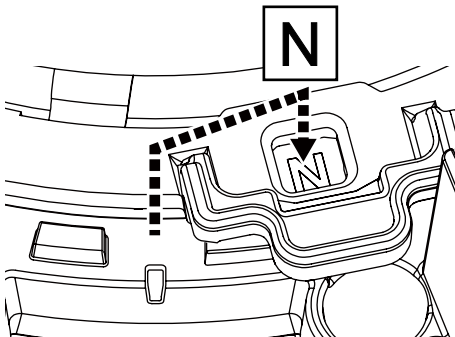


If you change the tilt angle of a camera with the tilt adjustment lever, change the [Tilt adjustment lever position] on the software screen of the camera. For more about how to change settings, please refer to the Web Guide on our Documentation Database.

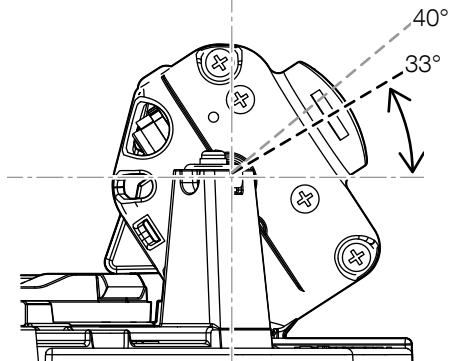
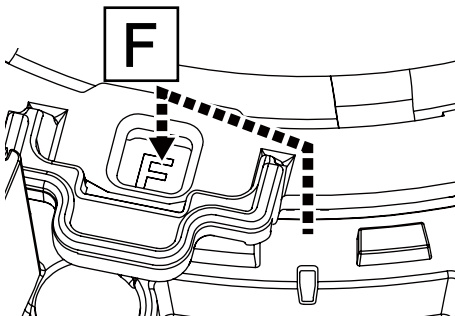
<TILT angle 40° (Middle) > Factory setup position

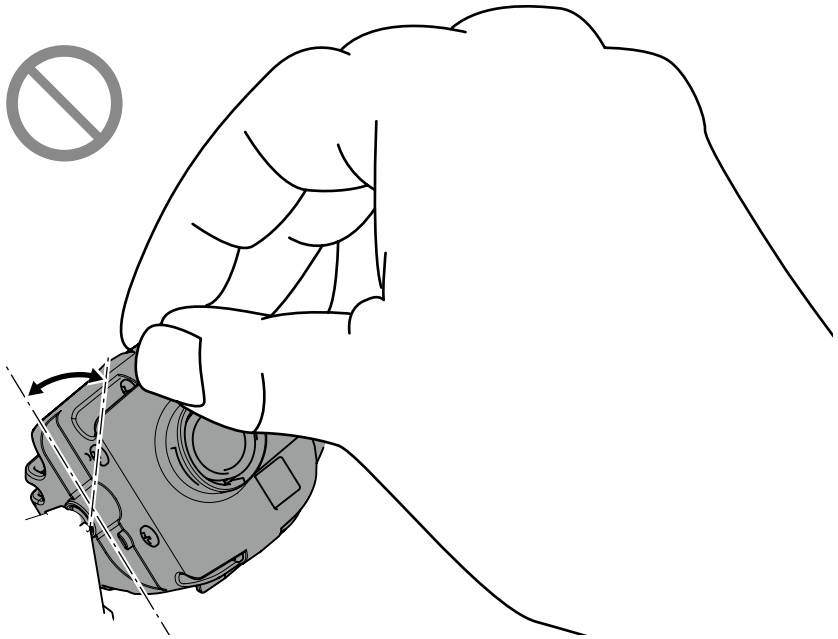


<TILT angle 47° (Near) >



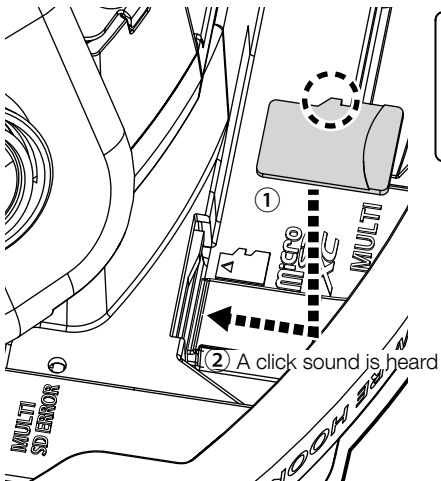
<TILT angle 33° (Far) >



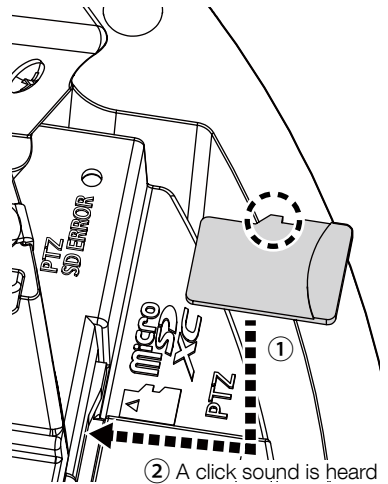


■ When using a microSD

MULTI microSD slot

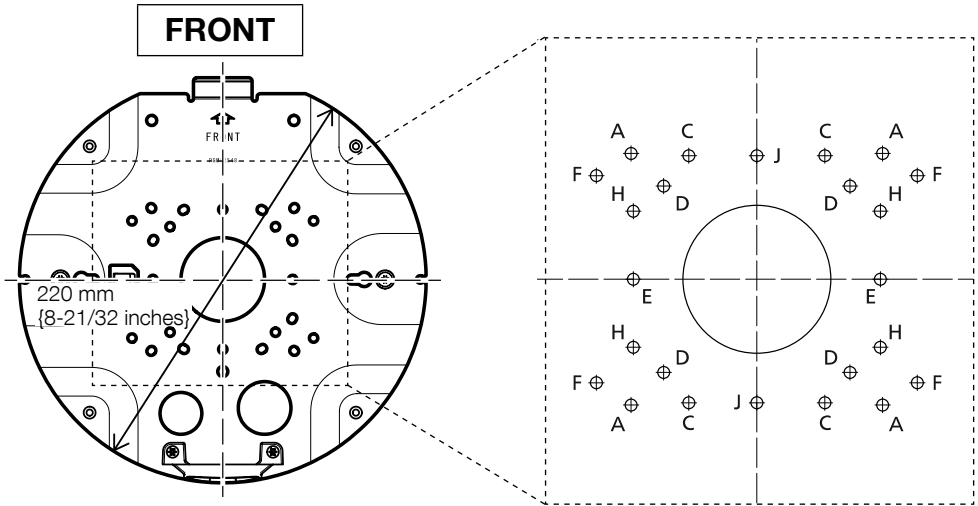


PTZ microSD slot



Step 2

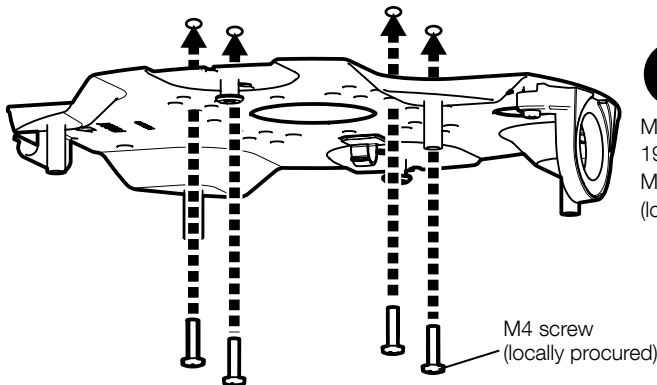
Web Guide



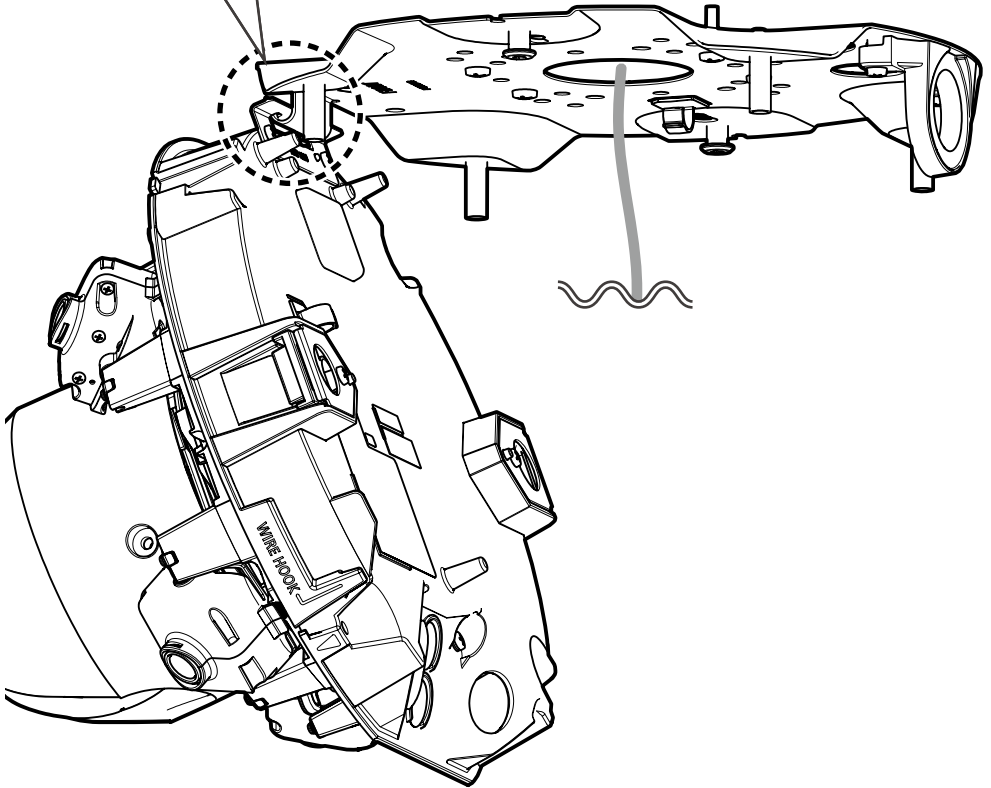
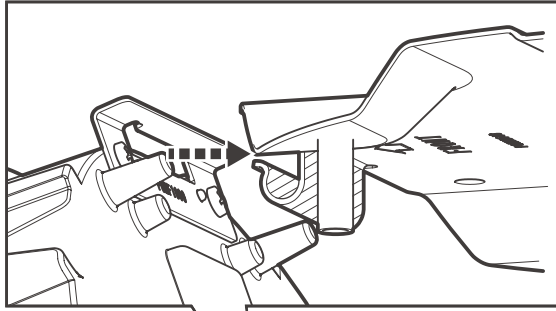
This plate can be fixed at the following seven screw positions depending on the condition of the installation surface. Use the same mounting holes from A to J.

	Length	Width
A	85 mm{3-11/32 inches} (85.7 mm{3-3/8 inches})	85 mm{3-11/32 inches} (85.7 mm{3-3/8 inches})
C	83.5 mm{3-9/32 inches} (83.3 mm{3-9/32 inches})	46 mm{1-13/16 inches} (47.6 mm{1-7/8 inches})
D	63 mm{2-15/32 inches}	63 mm{2-15/32 inches}
E*	–	83.5 mm{3-9/32 inches}
H	46 mm{1-13/16 inches} (47.6 mm{1-7/8 inches})	83.5 mm{3-9/32 inches} (83.3 mm{3-9/32 inches})
J*	83.5 mm{3-9/32 inches}	–
F	108.5 mm{4-9/32 inches}	70 mm{2-3/4 inches}

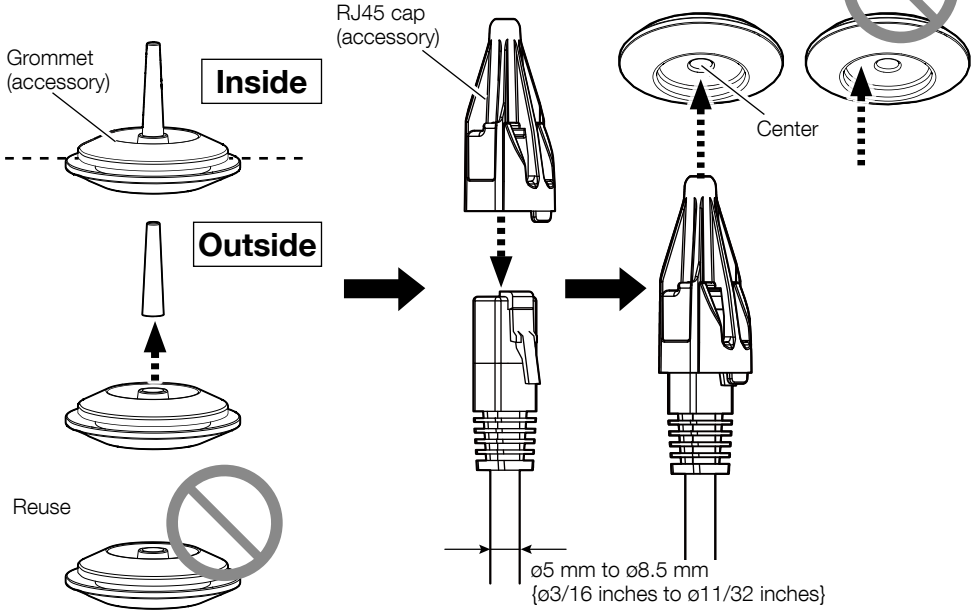
* When installing to a single switch box, fix with two fixing screws (M4: locally procured).



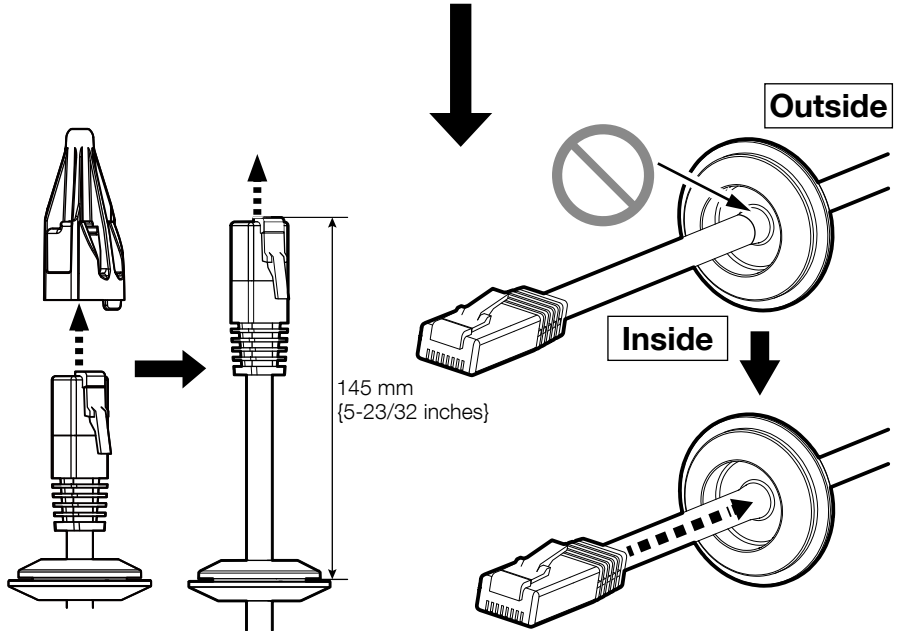
Minimum pull-out strength:
196 N {44 lbf}
M4 screw (4 pcs.)
(locally procured)



Step 3



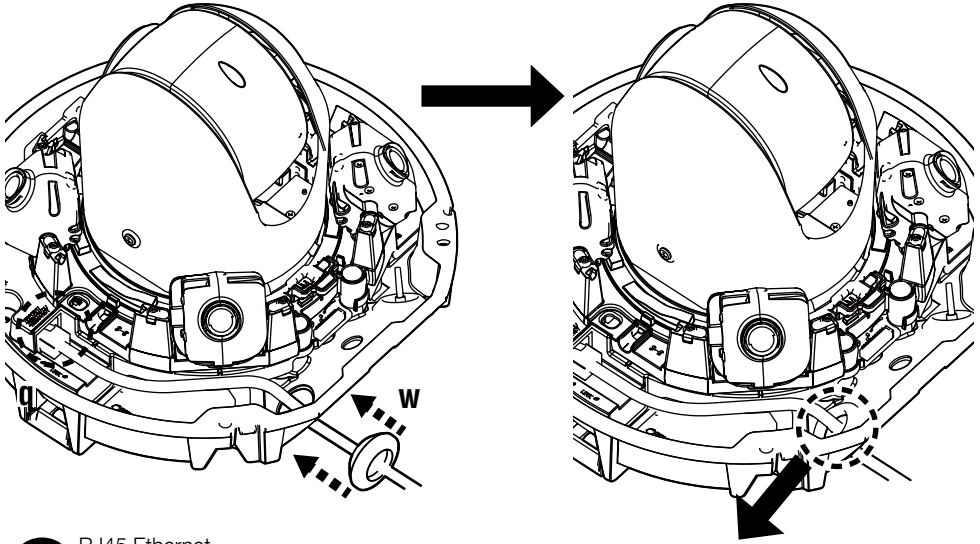
! RJ45 Ethernet
Category 5e or better, straight, 4 pairs (8 pins)
<100 m {328 feet}



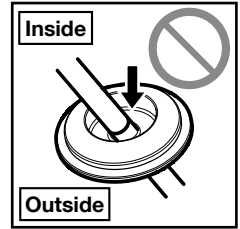
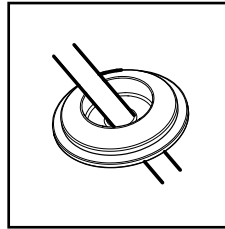
Step 4

■ RJ45 Ethernet cable

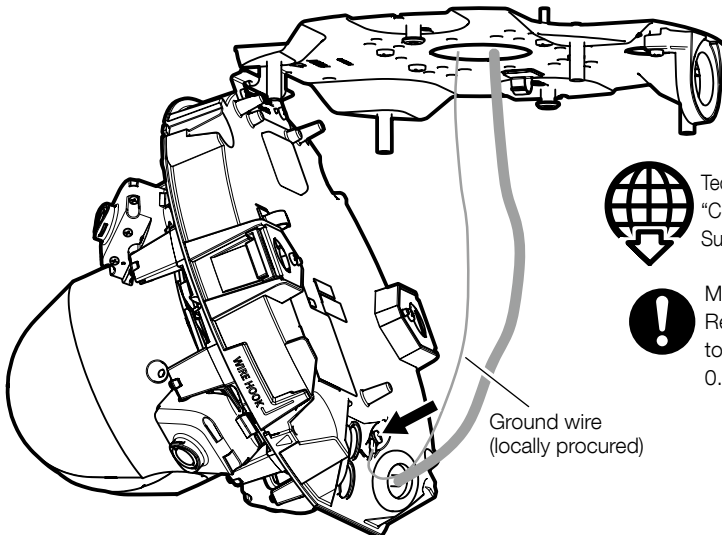
Web Guide



RJ45 Ethernet
Category 5e or better, straight, 4 pairs
(8 pins) <100 m {328 feet}



■ Ground wire



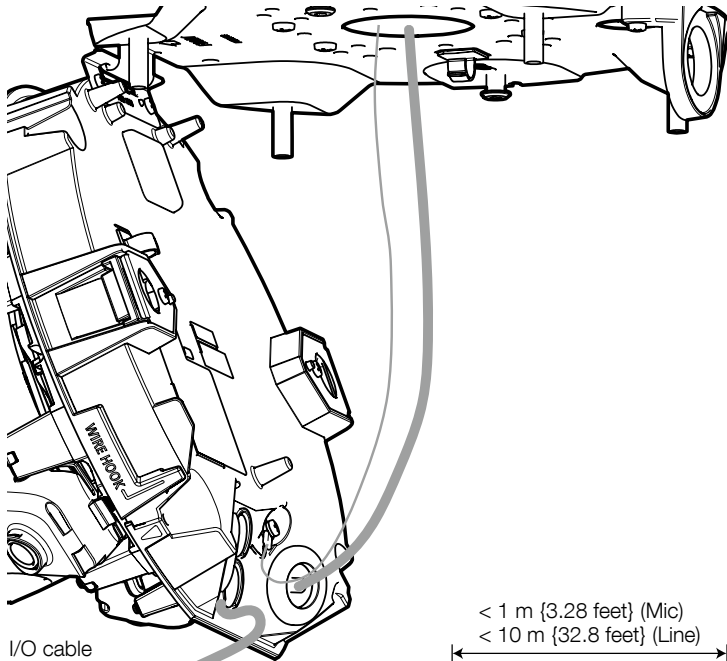
Technical information website
"Countermeasure for Lightning
Surge" <Control No.:C0121>



M3 × 6 mm (0.236 inches)
Recommended tightening
torque:
0.69 N·m {0.51 lbf·ft}

Step 4 (Continued)

■ When using an I/O cable



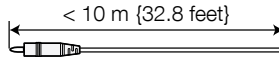
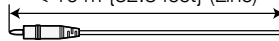
I/O cable
WV-QCA501A
(optional accessory)

Audio in (White)

Audio OUT (Black)

EXT I/O

< 1 m {3.28 feet} (Mic)
< 10 m {32.8 feet} (Line)

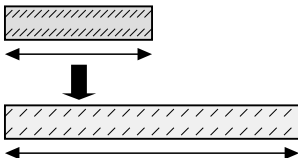


4P alarm cable
(WV-QCA501A accessory)

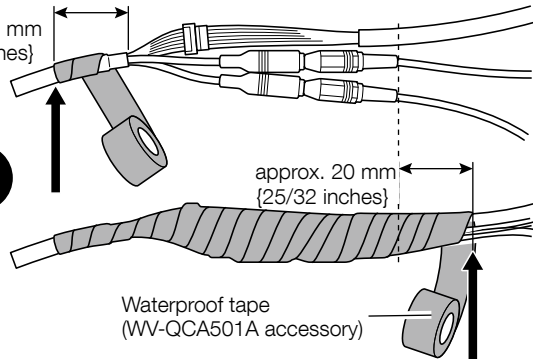
- GND (Black)
- ALARM IN3 (Gray)
- ALARM IN2 (Red)
- ALARM IN1 (Green)

- This cable is not to be used. Apply waterproofing also to this cable as well as other cables.

Stretch the waterproof tape by about twice the length to use.

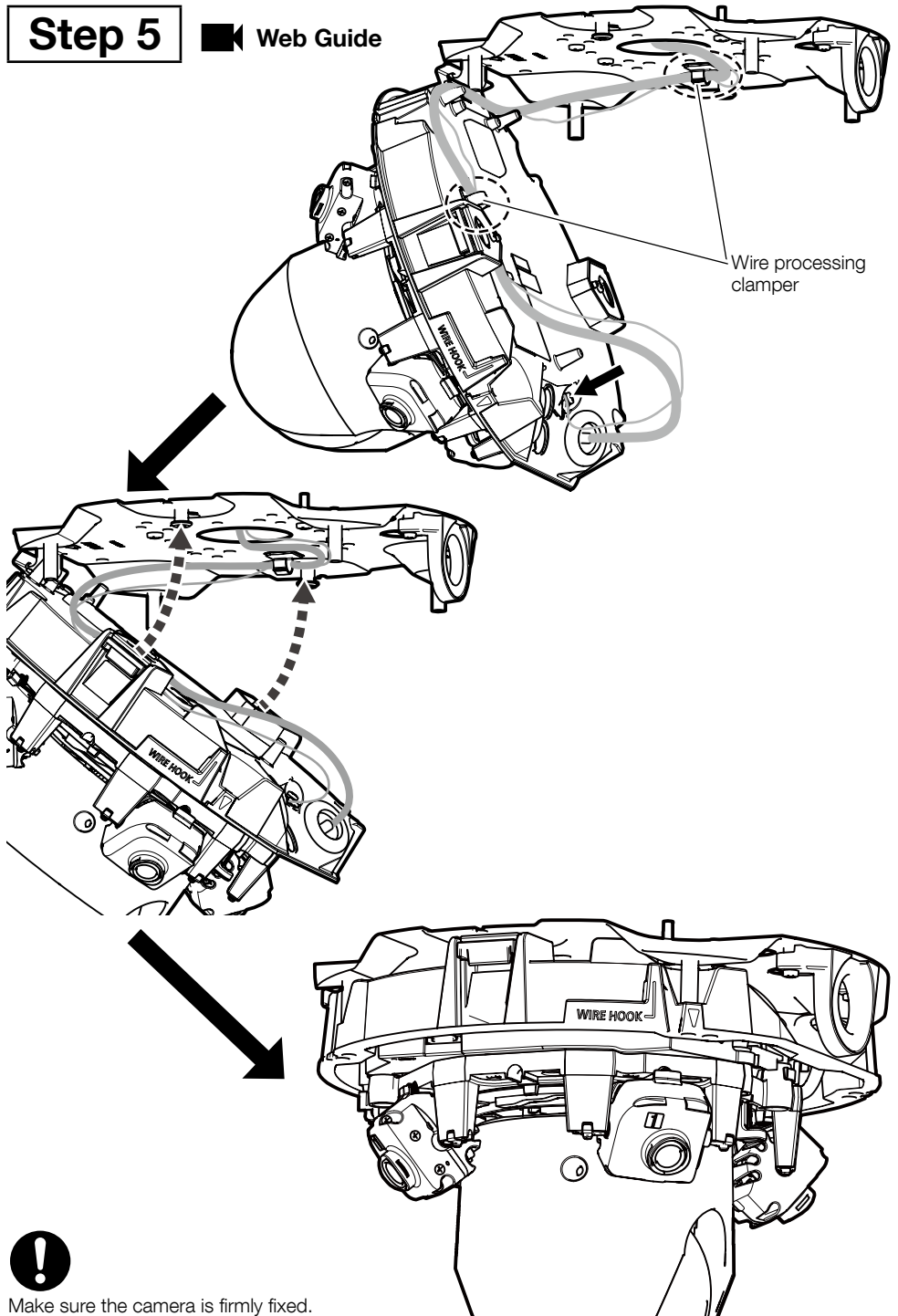


approx. 20 mm
{25/32 inches}



Step 5

Web Guide



Wire processing clammer

WIRE HOOK

WIRE HOOK

WIRE HOOK

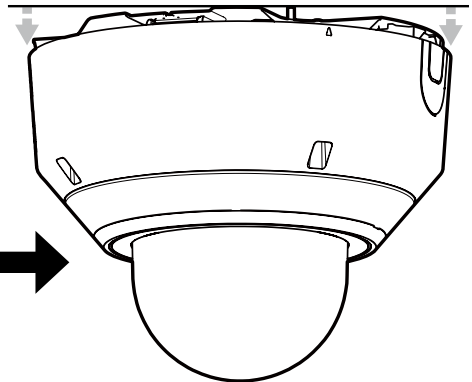
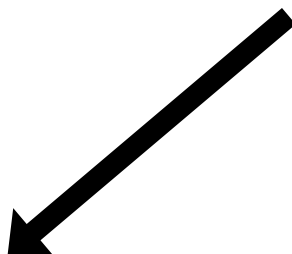
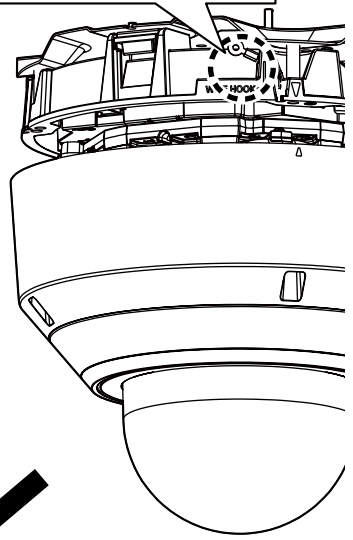
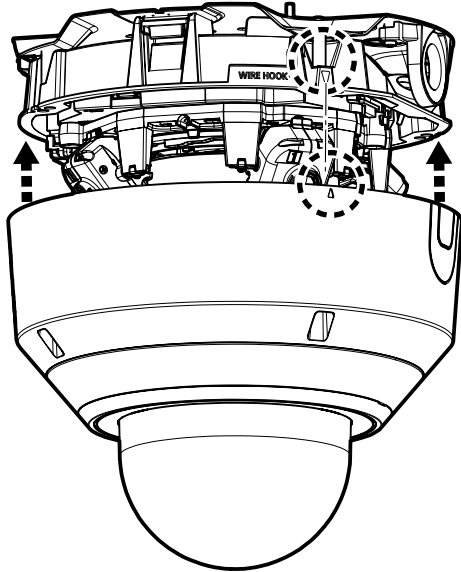
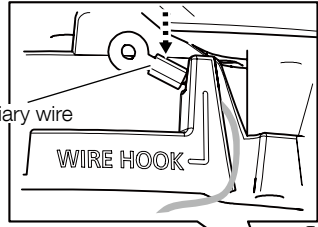


Make sure the camera is firmly fixed.

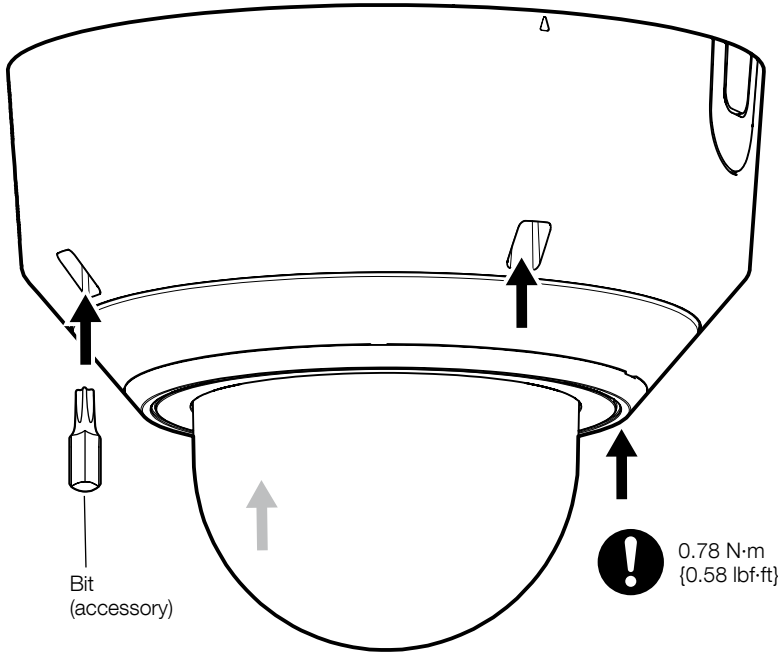
Step 6

Web Guide

Installed auxiliary wire



Do not remove the protective sheet of the dome cover while working.



Step 7

Turn the power on (Connect the PoE++ Hub)



- Technical information website
"IP Setting Software"
<Control No.: C0123>
or
"i-PRO Configuration Tool(iCT)"
<Control No.: C0133>