

## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
<b>Complementary CCN:</b>	N/A
<b>Product:</b>	Network Camera
<b>Model:</b>	WV-S1136
<b>Rating:</b>	12Vdc, 480mA, 48Vdc (PoE), 130mA (Class 2)
<b>Applicant Name and Address:</b>	I-PRO CO., LTD. 7-9-66 HAKOZAKI HIGASHI-KU FUKUOKA-SHI FUKUOKA 812-0053 JAPAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Nao Maede / Project Handler

Reviewed By: Tadao Nakayama / Reviewer

### Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

### Product Description

The product is a Network Camera for use in an indoor environment.

This equipment is supplied from the External Power Supply.

External Power Supply : That External Power Supply itself is not evaluated in this report.

### Model Differences

N/A

### Test Item Particulars

Product group	end product
Classification of use by	Instructed person Skilled person
Supply Connection	not mains connected: ES1
Supply tolerance	None
Supply connection – type	External Power Supply
Considered current rating of protective device	N/A
Equipment mobility	stationary wall/ceiling-mounted
Over voltage category (OVC)	OVC II
Class of equipment	Class III
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified T <sub>ma</sub> (°C)	50
IP protection class	IPX0
Power systems	not AC mains
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	0.37

### Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of : 50°C
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- The LED emission were determined to be Risk Group Exempt per IEC 62471.

**Additional Information**

The test samples were tested with the recommended lenses. (Test item: Hearing, Input rating, Mechanical)  
 The equipment was tested without any optional accessory installed.  
 Hence, this report does not cover parameters changed by optional accessories that might affect safety in the meaning of this standard.

**Additional Standards**

The product fulfills the requirements of:

**Markings and Instructions**

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee’s or Recognized Company’s name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	Input Ratings (voltage, frequency/dc, current/power) Output Ratings (voltage, frequency/dc, current/power)
Equipment for use in location where children are not likely to be present	<p>“This product is not suitable for use in locations where children are likely to be present” (Instruction)</p> <p>“Cet produit ne convient pas à une utilisation dans des lieux pouvant accueillir des enfants” or “Ce produit ne convient pas pour une utilisation dans des endroits où des enfants sont susceptibles d’être présents.” (Instruction)</p>
Safety instructions	<p>The following cautionary statement provided in the user manual.</p> <p>"The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant."</p>

**Special Instructions to UL Representative**

N/A

<b>BD1.0</b>	<b>TABLE: Production-Line Testing Requirements</b>					
<b>BD1.1</b>	<b>Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.</b>					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
<b>BD1.2</b>	<b>Earthing Continuity Test Exemptions – This test is not required for the following models:</b>					
	All Model					
<b>BD1.3</b>	<b>Electric Strength Test Exemptions – This test is not required for the following models:</b>					
	All Model					
<b>BD1.4</b>	<b>Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.</b>					
	N/A					

<b>BE1.0</b>	<b>Sample and Test Specifics for Follow-Up Tests at UL</b>				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	--	--	--	--	--

4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Input Connector DC12V (CN152)	SWITCHLAB INC. (SwichLab (ShangHai) Co., Ltd.)	ME030-350029401	AC150V,12A (Specification ratings: AC300V, 10A)	XCFR2	UL (E167040)	
LAN Connector (JK101)	YUQIU ELECTRONICS CO., LTD. (DONGGUAN YUQIU ELECTRONICS CO., LTD.)	RJ011- FD08S3B1G10	AC150V, 0.5A, Housing: V-0	QMFZ2	UL	
Lithium battery (B301)	Panasonic Corp.	BR-1225 or BR- 1225A	3.0V, 48mAh Max. abnormal charging current: 3.0mA	BBCV2	UL (MH12210)	
Alternate	POWER GLORY BATTERY TECH (HK) CO., LTD.	BR1225	3.0V, 45mAh Max. abnormal charging current: 10mA	BBCV2	UL (MH29853)	
PWB	Interchangeable	Interchangeable	Minimum V-1, minimum 105°C	ZPMV2	UL	
Stepping motor (ABF)	NIDEC COPAL CORPORATION	LPD10G-097-01	DC5.0V, 20Ω/phase	--	--	
Stepping motor (IR)	NMB Mechatronics Co., Ltd. (Minebea Mitsumi Inc.)	SM8-2013-A	DC5.0V, 21.0Ω/phase	--	--	
Rear Panel	SABIC INNOVATIVE PLASTICS US L L C	FR65	Min. 0.23mm thick, V-0	QMFZ2	UL (E121562)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Lower Case	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	

Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Upper Case	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
SD Cover	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Bottom Plate	Interchangeable	Interchangeable	Aluminum	--	--	
Front Angle	Interchangeable	Interchangeable	Steel	--	--	
Escutcheon	Interchangeable	Interchangeable	Aluminum	--	--	
IR Case	Techno-UMG Co., Ltd.	FA-820CA	Min. 0.4mm thick, min. HB	QMFZ2	UL (E47016)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	

## Enclosures

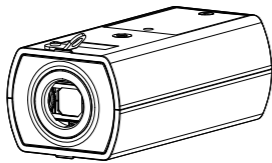
Type	Supplement Id	Description
Photographs	03-02	Overall View 1
Photographs	03-03	Overall View 2
Photographs	03-04	Internal View 1
Photographs	03-05	Internal View 2
Photographs	03-06	Internal View 3
Photographs	03-07	Internal View 4
Manuals	06-01	Manual

## Installation Guide

Included Installation Instructions

Network Camera For professional use only Indoor use

Model No. **WV-S1136**



### 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.
- Basic Information (in the following manual website):** Provides information about "Precautions for use", "Parts and functions" and "Detail specifications".
- Operating Instructions (in the following manual website):** Explains how to perform the settings and how to operate this camera.



\*<Control No.: C\*\*\*\*>\* used in these documents should be used to search for information on our support website ([https://security.panasonic.com/training\\_support/support/info/](https://security.panasonic.com/training_support/support/info/)) and will guide you to the right information.



- Before attempting to connect or operate this product, please read these instructions carefully and save this manual 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.

### For U.S. and Canada:

**Panasonic i-PRO Sensing Solutions Corporation of America**  
800 Gessner Rd, Suite 700 Houston, TX 77024  
<https://www.security.us.panasonic.com/>

### Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario, L4W 2T3 Canada  
1-877-495-0580  
<https://www.panasonic.com/ca/>

### For Europe and other countries:

**Panasonic Corporation**  
<http://www.panasonic.com>

Panasonic i-PRO Sensing Solutions Co., Ltd.  
Fukuoka, Japan

Authorised Representative in EU:

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



\* PGQX2443ZA \*



avs0221-0  
Printed in China

### 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 : Panasonic  
Model No. : WV-S1136  
Responsible Party :  
Panasonic Corporation of North America  
Two Riverfront Plaza, Newark, New Jersey  
07102-5490  
Support Contact : 1-800-528-6747



#### 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
<b>Pour une installation au plafond</b> Platine de fixation d'installation: 260 g {0,57 lbs} Caméra vidéo: 370 g {0,82 lbs}	M6 x 16 mm {5/8 pouces}/ 4 él.	562 N {126 lbf}
<b>Pour une installation murale</b> Platine de fixation d'installation: 420 g {0,93 lbs} Caméra vidéo: 370 g {0,82 lbs}	M6 x 16 mm {5/8 pouces}/ 4 él.	724 N {163 lbf}
<b>Pour fixer le câble de sécurité</b>	M4 x 16 mm {5/8 pouces}/ 1 él.	24.5 N {5.5 lbf}

\* 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.

### Caution:

- The DC power supply connected to the camera must be in the same building.
- The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant.
- 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.
- Only connect 12 V DC Class 2 power supply (UL 1310/ CSA 223), limited power source (IEC/EN/UL/CSA 60950-1, IEC/EN/UL/CSA 62368-1 Annex Q) or IEC/EN/UL/CSA 62368-1 PS2.
- 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

### Do not insert any foreign objects.

Fire or electrical shock may be caused if water or any foreign objects, such as metal objects, enter inside the unit. Turn the power off immediately and contact qualified service personnel for service.

### Do not use this product in an inflammable atmosphere.

Failure to observe this may cause an explosion resulting in injury.

### Avoid installing this product in the locations where salt damage occurs or corrosive gas is produced.

Otherwise, the mounting portions will deteriorate and injury or accidents due to a fall of the product may occur.

### Do not strike or give a strong shock to this product.

Failure to observe this may cause injury or fire.

### Keep microSD memory cards away from infants and children.

Otherwise, they may swallow the cards by mistake.

In this case, consult a doctor immediately.

### Do not hang down from this product or use this product as a pedestal.

Failure to observe this may cause injury or accidents.

### Do not damage the power cable.

Do not damage, fabricate, twist, stretch, bundle, or forcibly bend the power cable. Do not place heavy objects on it, and keep it away from heat sources.

Use of a damaged power cable may cause electric shock, short circuit, or fire.

Consult the dealer for repair.

### Do not attempt to disassemble or modify this product.

Failure to observe this may cause fire or electric shock. Consult the dealer for the repair or inspections.

### Do not install or clean the camera, or touch this product, the power cable or the connected cables during thunder storms.

Failure to observe this may cause electric shock.

### 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.

### Stop the operation immediately when something is wrong with this product.

When smoke goes up from the product, the smell of smoke comes from the product, or the exterior of the product has deteriorated, continued use will cause a fire or fall of the product resulting in injury, or damage to the product. In this case, turn the power off immediately and contact qualified service personnel for service.

### Select an installation area that can support the total weight.

Selecting an inappropriate installation surface may cause this product to fall down or topple over, resulting in injury or accidents. Installation work shall be started after sufficient reinforcement.

### Periodic inspections shall be conducted.

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

### Turn the power off when do wiring of this product.

Failure to observe this may cause electric shock. In addition, short circuit or wrong wiring may cause fire.

### Install this product in a location high enough to avoid people and objects from bumping the product.

Failure to observe this may cause injury.

### The measures of protection against a fall of this product shall be taken.

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

Be sure to install the safety wire.

### Do not install this product in locations subject to vibration.

Loosening of mounting screws or bolts may cause a fall of the product resulting in injury or accidents.

### Correctly perform all wiring.

Short circuits in the wiring or incorrect wiring may cause fire or electrical shock.

### Install the product securely on a wall or a ceiling in accordance with the installation instructions.

Failure to observe this may cause injury or accidents.

### Do not rub the edges of metal parts with your hand.

Failure to observe this may cause injury.

### Turn the power off when cleaning this product.

Failure to observe this may cause injury.

## 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.
- For details concerning licensing and source code of open source software, click "Click here for OSS information" on "Support" page of the setup menu of this product and read the displayed content.
- Please note that we shall not respond to any inquiries regarding the contents of the source code.

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- The word "QR Code" is a registered trademark of DENSO WAVE INCORPORATED in Japan and other countries.
- All other trademarks identified herein are the property of their respective owners.

## Precautions for installation

**Panasonic i-PRO Sensing Solutions 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 a ceiling or wall according to Installation Guide.

#### Installation area for this product

Select an appropriate place for the installation area (such as a strong wall or ceiling) 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.

#### This camera is designed to be used indoors

This product is not operable outdoors. Do not expose this camera to direct sunlight for hours and do not install the product near a heater or an air conditioner. Otherwise, it may cause deformation, discoloration and malfunction. Keep this camera away from water and moisture.

#### Do not place this product in the following places

- Locations where 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 where it may get directly wet from rain or water splash (including under the eaves, etc.)
- Locations subject to moisture or dust
- Locations subject to sudden changes in temperature such as near air discharge vents of air conditioners or air circulation inlet doors
- Locations near rubber products (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 from outside or IR light

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

In the case of using the IR light, installation of a camera near a wall may cause reflection of infrared rays resulting in a part of the screen or the entire screen turning whitish.

Refer to our support 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 lens.

#### 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.

#### 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 {3-15/16 inches} away from them or conduct the electric conduit work using metal pipes. (Be sure to make ground connection of the metal pipes.)

#### Make sure to remove this product if it will no longer be used.

#### This product has no power switch.

When turning off the power, disconnect the power supply from the 12 V DC power supply or the PoE device.

#### About the battery

A battery is installed inside the camera. Do not leave the battery exposed in environments of excessive heat as a result of sunlight or fire.

#### 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.

## Troubleshooting

Before requesting service, refer to "Troubleshooting" of Basic Information and Operating Instructions. Then, confirm the trouble.

## Specifications\* \*For further information, refer to the Basic Information.

Power source *1:	DC 12 V PoE (IEEE802.3af compliant)
Power consumption *1:	DC 12 V: 480 mA/Approx. 5.8 W PoE DC 48 V: 130 mA/Approx. 6.3 W (Class 2 device)
Operating environment Ambient operating temperature:	-10 °C to +50 °C {14 °F to 122 °F} (Power on range 0 °C to 50 °C {32 °F to 122 °F})
Ambient operating humidity:	10 % to 90 % (no condensation)
Storage environment Storage temperature: Storage humidity:	-30 °C to +60 °C [-22 °F to +140 °F] 10 % to 95 % (no condensation)
Monitor output (for adjustment):	VBS: 1.0 V [p-p]/75 Ω, composite, Pin jack An NTSC or PAL signal can be outputted from camera (either press the INITIAL SET button quickly (within 1 second) or use software to select NTSC or PAL signal).
EXT I/O terminals:	ALARM IN1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN3 (Alarm input 3/ AUX OUT) (x1)
Audio input: For microphone input:	ø3.5 mm stereo mini jack Recommended applicable microphone: Plug-in power type (Sensitivity of microphone: -48 dB±3 dB (0 dB=1 V/Pa, 1 kHz)) Input impedance: Approx. 2 kΩ (unbalanced) Supply voltage: 2.5 V ±0.5 V Input level: Approx. -10 dBV
Audio output: For line input:	ø3.5 mm stereo mini jack (Audio output is monaural.) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV
Dimensions:	75 mm (W) × 57 mm (H) × 146 mm (D) {2-15/16 inches} (W) × {2-1/4 inches} (H) × {5-3/4 inches} (D) (excluding lens/ power cord plug)
Mass:	Approx. 370 g {0.82 lbs}
Finish:	PC/ABS resin (i-PRO white)

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

## Optional accessories



The latest information → Support website "Accessory Selector" <Control No.: C0501>

## Standard accessories

Installation Guide (this document) .....1 pc. Warranty card .....1 pc.

IMPORTANT SAFETY INSTRUCTIONS .....1 pc. Code label \*1 .....1 pc.

\*1 This label may be required for network management. Use caution not to lose this label.

### The following parts are used during installation procedures.

Power cord plug .....1 pc. Safety wire .....1 pc.

Mount base .....1 pc. Washer .....1 pc.

Safety wire lug .....1 pc. Spring washer .....1 pc.

Wire lug fixing screws  
(M2.5 × 8 mm {5/16 inches}) .....2 pc.  
(of them, 1 for spare)



Basic Information "Mount base"

## Other items that are needed (not included)

### Fixing screw

Installation method	Recommended screw *1	Minimum pull-out strength (per 1 pc.) *2
<b>For mounting on ceiling</b> Mount bracket: 260 g {0.57 lbs} Camera: 370 g {0.82 lbs}	M6 x 16 mm *3 *4 {5/8 inches} x 4 pcs.	562 N {126 lbf} *5
	M4 x 16 mm *3 {5/8 inches} x 1 pc.	24.5 N {5.5 lbf}
<b>For mounting on wall</b> Mount bracket: 420 g {0.93 lbs} Camera: 370 g {0.82 lbs}	M6 x 16 mm *3 *4 {5/8 inches} x 4 pcs.	724 N {163 lbf} *5
	M4 x 16 mm *3 {5/8 inches} x 1 pc.	24.5 N {5.5 lbf}

\*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 support website <Control No.: C0120>.

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

\*4 The number of required screws or anchor bolts varies depending on the specific cations of the mount bracket (locally procured). Refer to the operating instructions of the mount bracket (locally procured) for information about how to mount the mount bracket.

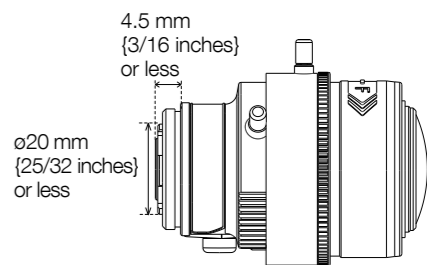
\*5 Make sure that the screws or anchor bolts separately procured when locally procuring a mount bracket for the ceiling or wall are capable of supporting the total weight (including the moment when mounting to a wall).

- Ethernet cable with RJ45 plug (category 5e or better, straight, 4 pairs (8 pins))
- As necessary, audio input cable, audio output cable, alarm I/O cables, power supply cable
- Tools
- Compatible lens

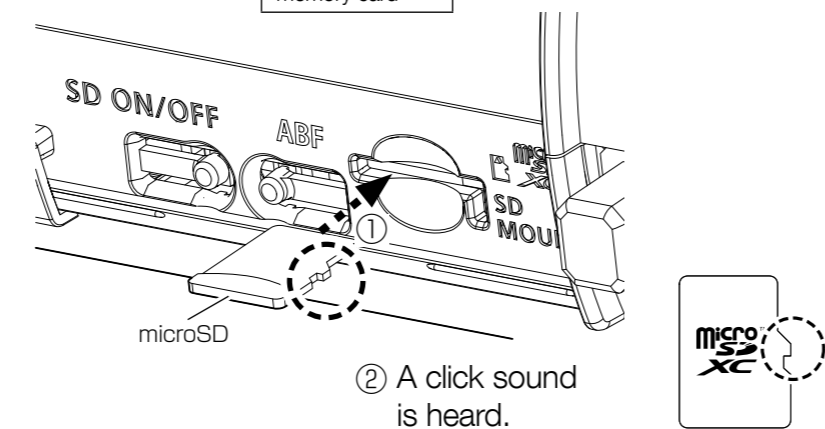
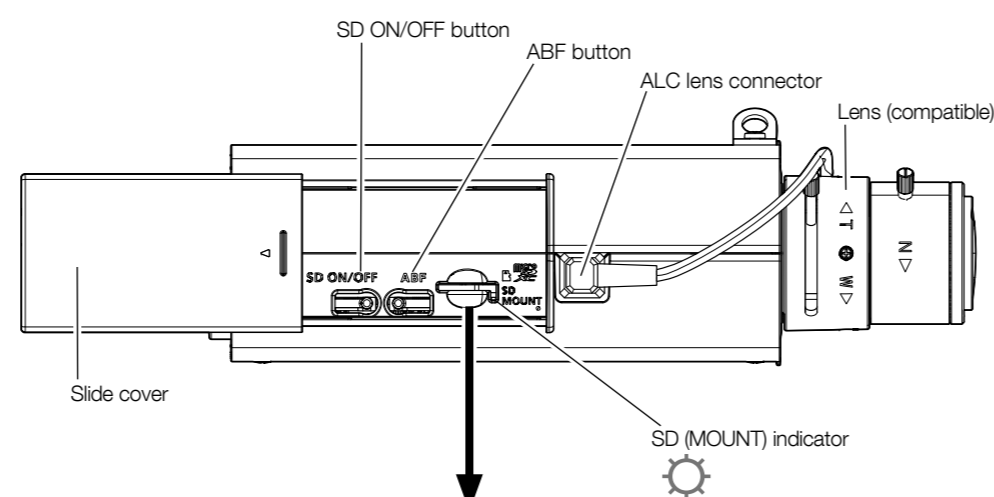
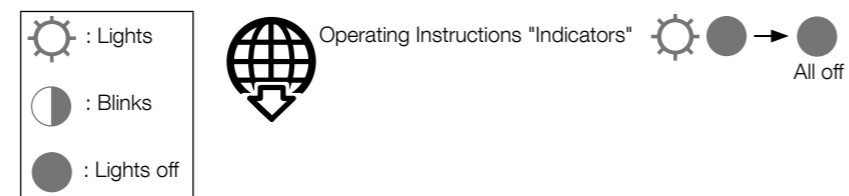
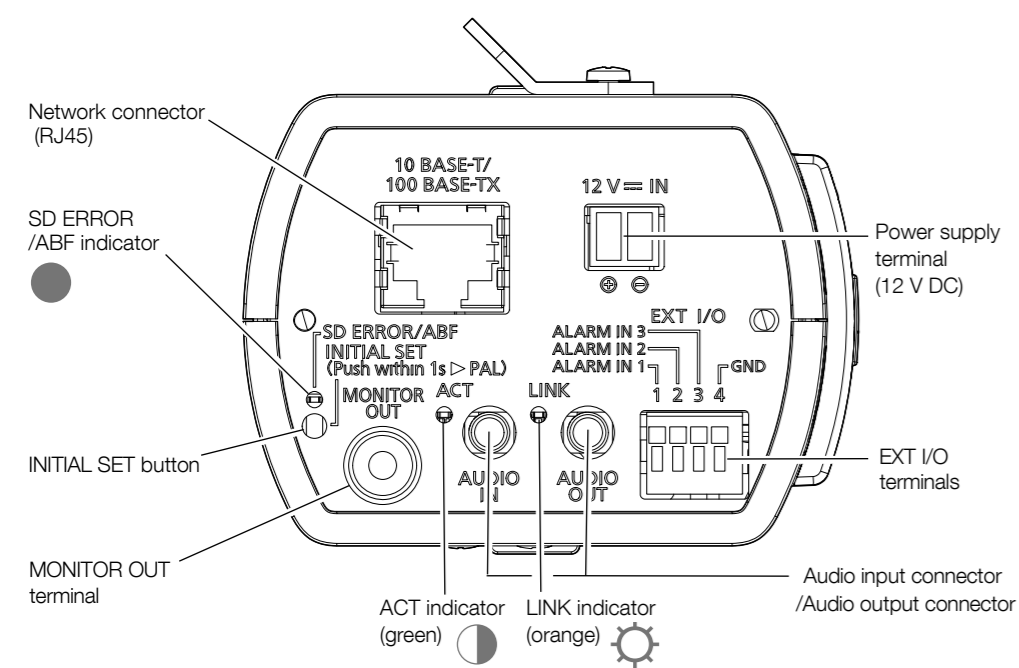


Support website "Compatible lens" <Control No.: C0102>

\* When using a lens made by other companies, use a lens that has a protruded portion from the mount face of ø20 mm {25/32 inches} or less and a protruded portion from the flange face of 4.5 mm {3/16 inches} or less. Lenses without a focus adjustment mechanism and zoom lenses cannot be used.



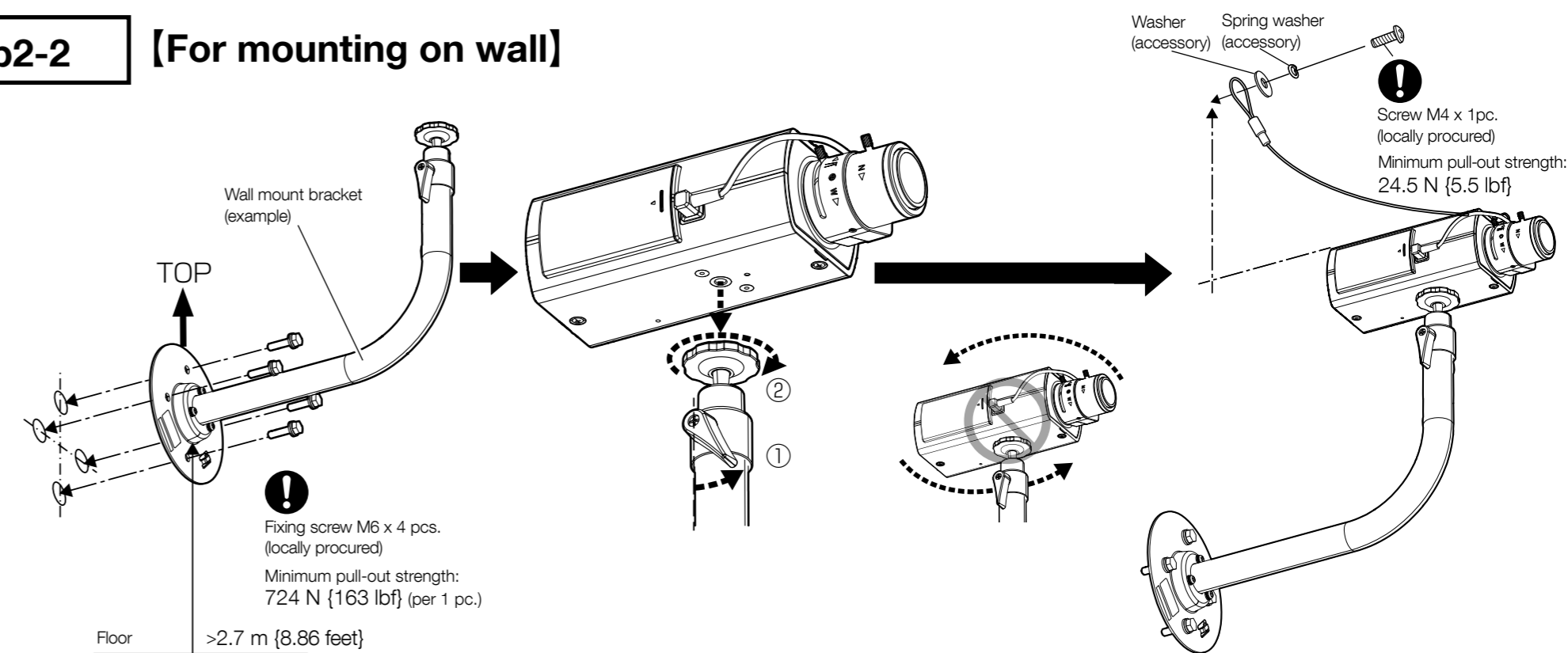
## Parts and functions



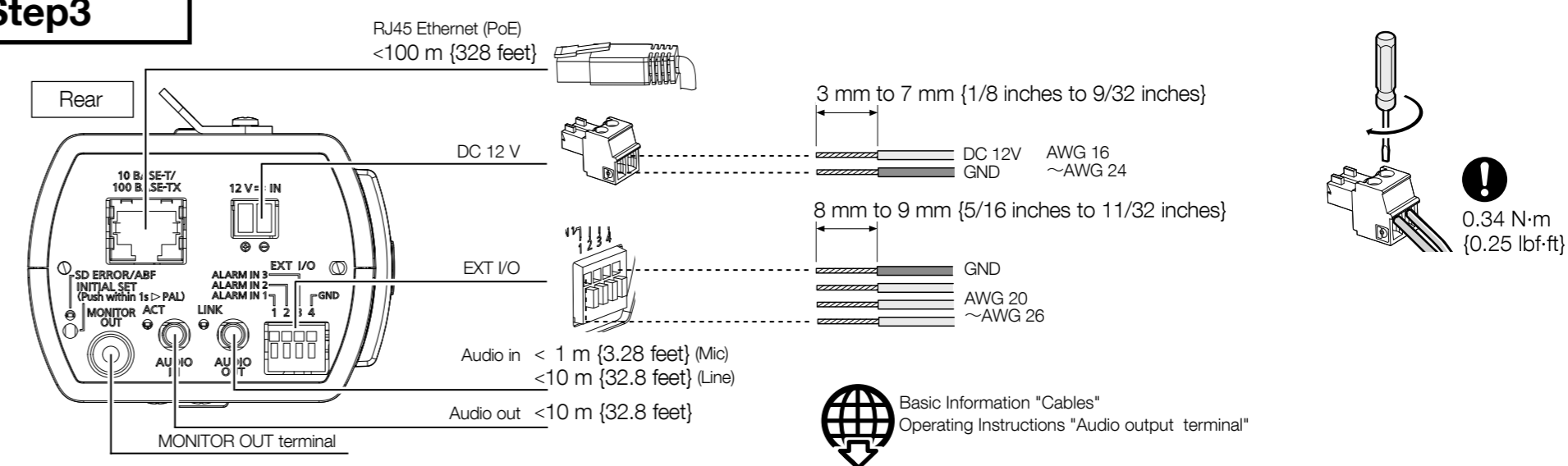
Operating Instructions "Format the microSD memory card"

Support website "Compatible microSD memory card" <Control No.: C0107>

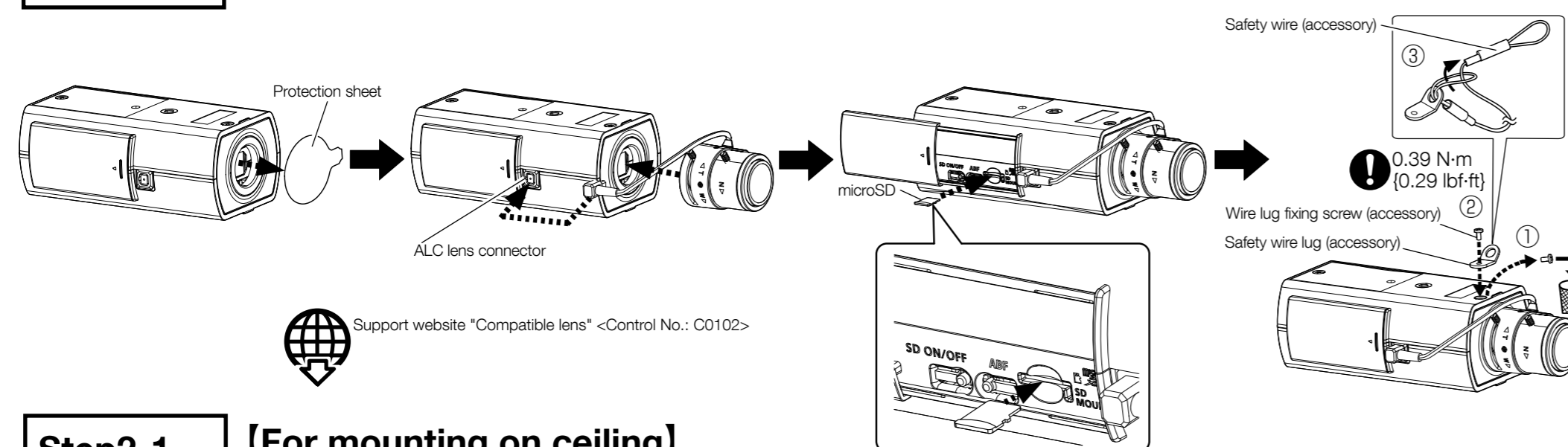
## Step2-2 [For mounting on wall]



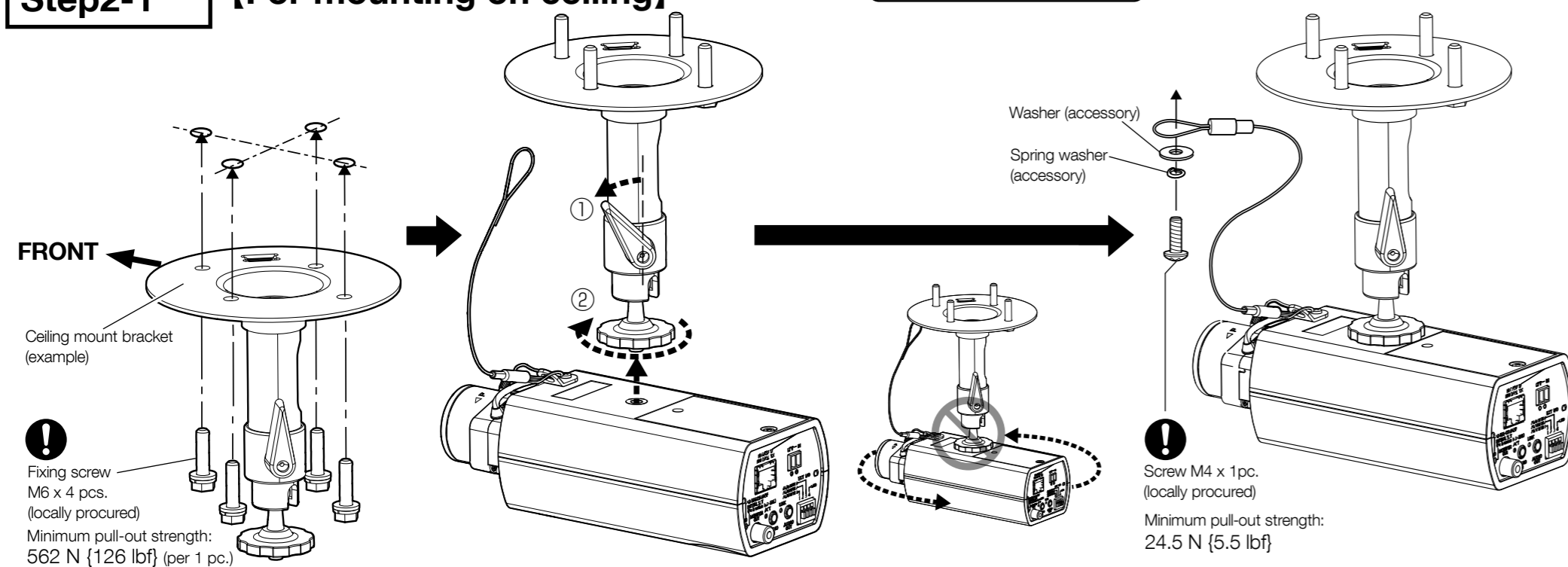
## Step3



## Step1 Preparations



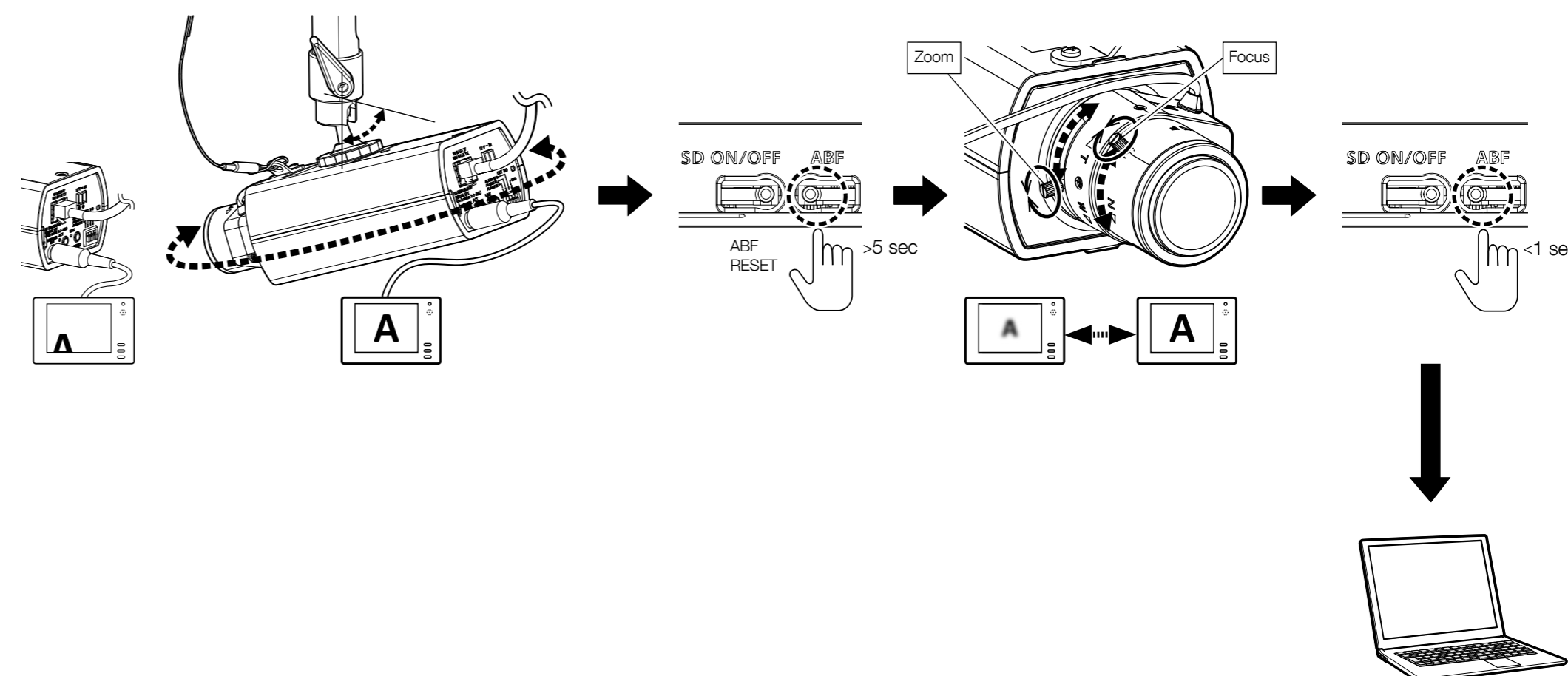
## Step2-1 [For mounting on ceiling]



## Step4

→Power On (DC 12 V/PoE)

Remove the protection film from the lens.



Support website "IP Setting Software" <Control No.: C0123>

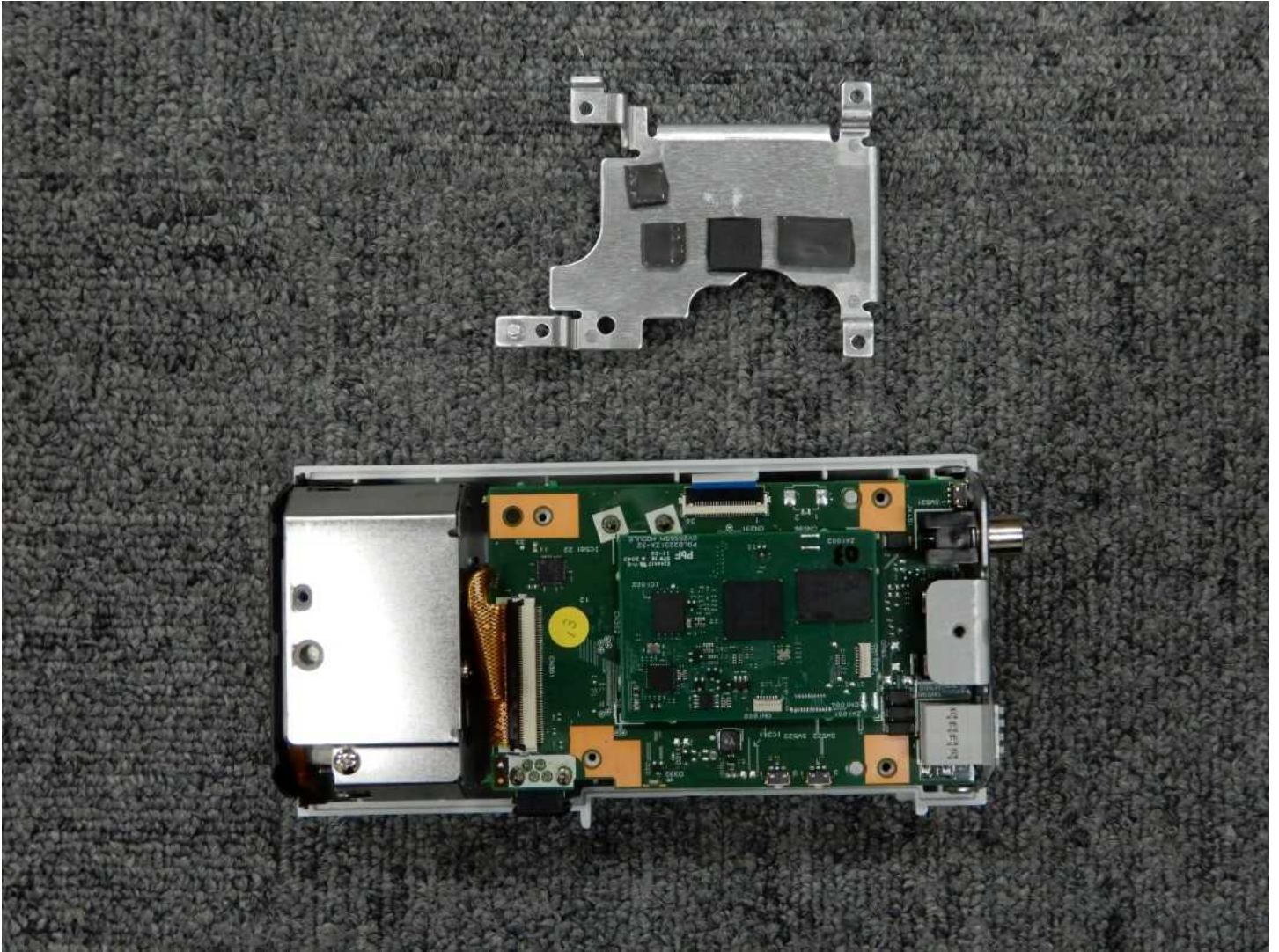
"Extra optical zoom" <Control No.: C0124>

"How to take a wide depth of field" <Control No.: C0127>

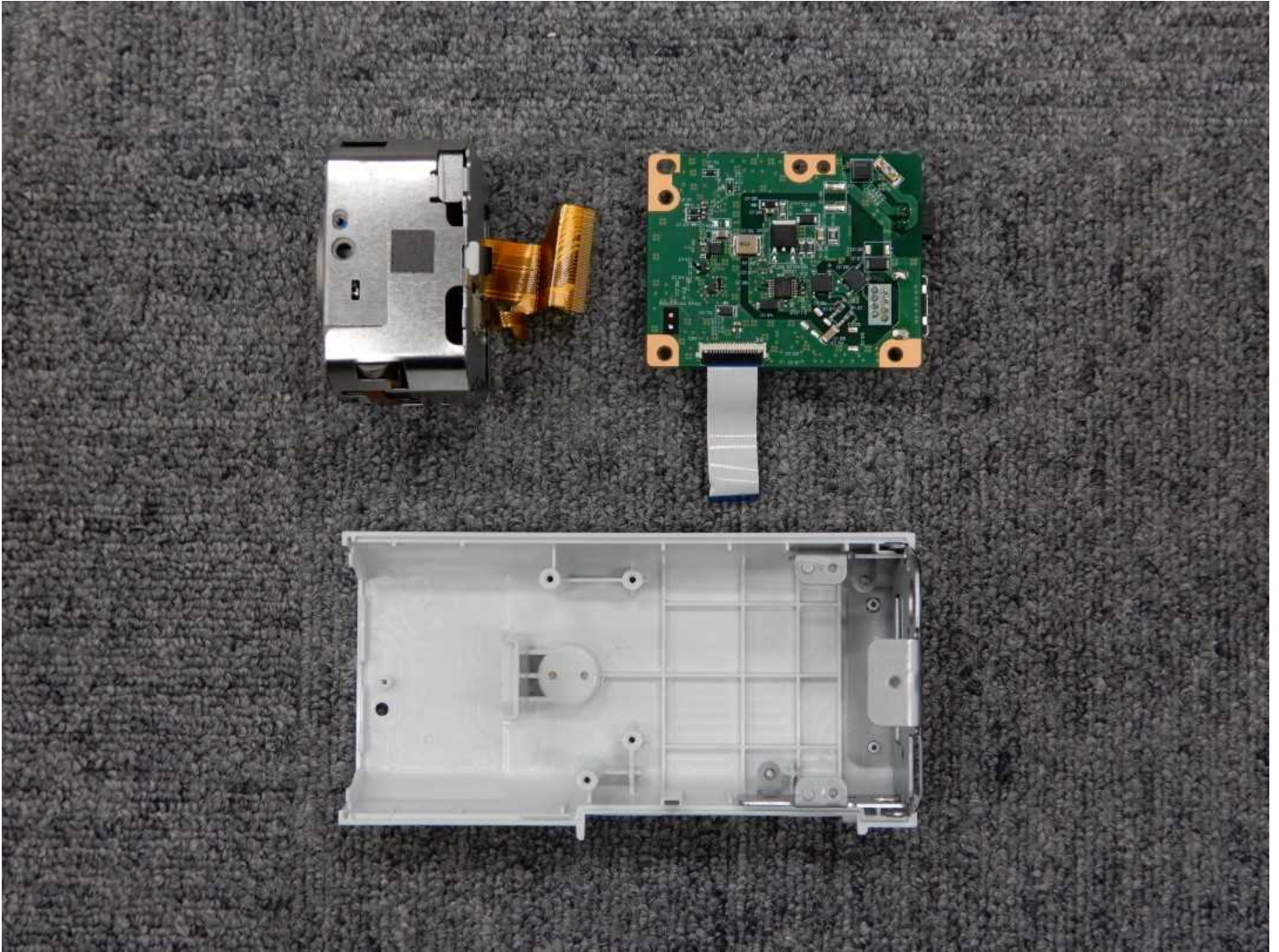












## UL TEST REPORT AND PROCEDURE

<b>Standard:</b>	UL 62368-1, 3rd Ed, Issued: 2019-12-13 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, Issued: 2019-12-13 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
<b>Complementary CCN:</b>	N/A
<b>Product:</b>	Network Camera
<b>Model:</b>	WV-S1136
<b>Rating:</b>	12Vdc, 480mA, 48Vdc (PoE), 130mA (Class 2)
<b>Applicant Name and Address:</b>	Panasonic i-PRO Sensing Solutions Co., Ltd. 4-1-62 MINOSHIMA HAKATA-KU FUKUOKA-SHI FUKUOKA-KEN 812-8531 Japan

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Ayano Matsumoto / Project  
Handler

Reviewed By: Bruce A. Mahrenholz / Reviewer

**Supporting Documentation**

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
  - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
  - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
  - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

**Product Description**

The product is a Network Camera for use in an indoor environment.  
 This equipment is supplied from the External Power Supply.  
 External Power Supply : That External Power Supply itself is not evaluated in this report.

**Model Differences**

N/A

**Test Item Particulars**

Product group	end product
Classification of use by	Instructed person Skilled person
Supply Connection	not mains connected: ES1
Supply tolerance	None
Supply connection – type	External Power Supply
Considered current rating of protective device	N/A
Equipment mobility	stationary wall/ceiling-mounted
Over voltage category (OVC)	OVC II
Class of equipment	Class III
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer’s specified Tma (°C)	50
IP protection class	IPX0
Power systems	not AC mains
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	0.37

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of : 50°C

- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- The LED emission were determined to be Risk Group Exempt per IEC 62471.

**Additional Information**

The test samples were tested with the recommended lenses. (Test item: Hearing, Input rating, Mechanical)  
 The equipment was tested without any optional accessory installed.  
 Hence, this report does not cover parameters changed by optional accessories that might affect safety in the meaning of this standard.

**Additional Standards**

The product fulfills the requirements of:

**Markings and Instructions**

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee’s or Recognized Company’s name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	Input Ratings (voltage, frequency/dc, current/power) Output Ratings (voltage, frequency/dc, current/power)
Equipment for use in location where children are not likely to be present	<p>“This product is not suitable for use in locations where children are likely to be present” (Instruction)</p> <p>“Cet produit ne convient pas à une utilisation dans des lieux pouvant accueillir des enfants” or “Ce produit ne convient pas pour une utilisation dans des endroits où des enfants sont susceptibles d’être présents.” (Instruction)</p>
Safety instructions	<p>The following cautionary statement provided in the user manual.</p> <p>"The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant."</p>

**Special Instructions to UL Representative**

N/A

<b>BD1.0</b>	<b>TABLE: Production-Line Testing Requirements</b>					
<b>BD1.1</b>	<b>Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.</b>					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
<b>BD1.2</b>	<b>Earthing Continuity Test Exemptions – This test is not required for the following models:</b>					
	All Model					
<b>BD1.3</b>	<b>Electric Strength Test Exemptions – This test is not required for the following models:</b>					
	All Model					
<b>BD1.4</b>	<b>Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.</b>					
	N/A					

<b>BE1.0</b>	<b>Sample and Test Specifics for Follow-Up Tests at UL</b>				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	--	--	--	--	--

4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Input Connector DC12V (CN152)	SWITCHLAB INC. (SwichLab (ShangHai) Co., Ltd.)	ME030-350029401	AC150V,12A (Specification ratings: AC300V, 10A)	XCFR2	UL (E167040)	
LAN Connector (JK101)	YUQIU ELECTRONICS CO., LTD. (DONGGUAN YUQIU ELECTRONICS CO., LTD.)	RJ011- FD08S3B1G10	AC150V, 0.5A, Housing: V-0	QMFZ2	UL	
Lithium battery (B301)	Panasonic Corp.	BR-1225	3.0V, 48mAh Max. abnormal charging current: 3.0mA	BBCV2	UL (MH12210)	
PWB	Interchangeable	Interchangeable	Minimum V-1, minimum 105°C	ZPMV2	UL	
Stepping motor (ABF)	NIDEC COPAL CORPORATION	LPD10G-097-01	DC5.0V, 20Ω/phase	--	--	
Stepping motor (IR)	NMB Mechatronics Co., Ltd. (Minebea Mitsumi Inc.)	SM8-2013-A	DC5.0V, 21.0Ω/phase	--	--	
Rear Panel	SABIC INNOVATIVE PLASTICS US L L C	FR65	Min. 0.23mm thick, V-0	QMFZ2	UL (E121562)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Lower Case	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Upper Case	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	

SD Cover	CHI MEI CORPORATION	PC-540	Min. 0.75mm thick, min. HB	QMFZ2	UL (E56070)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	
Bottom Plate	Interchangeable	Interchangeable	Aluminum	--	--	
Front Angle	Interchangeable	Interchangeable	Steel	--	--	
Escutcheon	Interchangeable	Interchangeable	Aluminum	--	--	
IR Case	Techno-UMG Co., Ltd.	FA-820CA	Min. 0.4mm thick, min. HB	QMFZ2	UL (E47016)	
Alternate	Interchangeable	Interchangeable	Min. HB	QMFZ2	UL	

## Enclosures

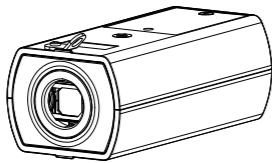
Type	Supplement Id	Description
Photographs	03-02	Overall View 1
Photographs	03-03	Overall View 2
Photographs	03-04	Internal View 1
Photographs	03-05	Internal View 2
Photographs	03-06	Internal View 3
Photographs	03-07	Internal View 4
Manuals	06-01	Manual

## Installation Guide

Included Installation Instructions

Network Camera For professional use only Indoor use

Model No. **WV-S1136**



### 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.
- Basic Information (in the following manual website):** Provides information about "Precautions for use", "Parts and functions" and "Detail specifications".
- Operating Instructions (in the following manual website):** Explains how to perform the settings and how to operate this camera.



\*<Control No.: C\*\*\*\*>\* used in these documents should be used to search for information on our support website ([https://security.panasonic.com/training\\_support/support/info/](https://security.panasonic.com/training_support/support/info/)) and will guide you to the right information.



- Before attempting to connect or operate this product, please read these instructions carefully and save this manual 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.

### For U.S. and Canada:

**Panasonic i-PRO Sensing Solutions Corporation of America**  
800 Gessner Rd, Suite 700 Houston, TX 77024  
<https://www.security.us.panasonic.com/>

### Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario, L4W 2T3 Canada  
1-877-495-0580  
<https://www.panasonic.com/ca/>

### For Europe and other countries:

**Panasonic Corporation**  
<http://www.panasonic.com>

Panasonic i-PRO Sensing Solutions Co., Ltd.  
Fukuoka, Japan

Authorised Representative in EU:

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



\* PGQX2443ZA \*



avs0221-0  
Printed in China

### 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 : Panasonic  
Model No. : WV-S1136  
Responsible Party : Panasonic Corporation of North America  
Two Riverfront Plaza, Newark, New Jersey  
07102-5490  
Support Contact : 1-800-528-6747



#### 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
<b>Pour une installation au plafond</b> Platine de fixation d'installation: 260 g {0,57 lbs} Caméra vidéo: 370 g {0,82 lbs}	M6 x 16 mm {5/8 pouces}/ 4 él.	562 N {126 lbf}
<b>Pour une installation murale</b> Platine de fixation d'installation: 420 g {0,93 lbs} Caméra vidéo: 370 g {0,82 lbs}	M6 x 16 mm {5/8 pouces}/ 4 él.	724 N {163 lbf}
<b>Pour fixer le câble de sécurité</b>	M4 x 16 mm {5/8 pouces}/ 1 él.	24.5 N {5.5 lbf}

\* 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.

### Caution:

- The DC power supply connected to the camera must be in the same building.
- The network camera is only intended for a connection to an ethernet or PoE network without routing to the outside plant.
- 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.
- Only connect 12 V DC Class 2 power supply (UL 1310/ CSA 223), limited power source (IEC/EN/UL/CSA 60950-1, IEC/EN/UL/CSA 62368-1 Annex Q) or IEC/EN/UL/CSA 62368-1 PS2.
- 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

### Do not insert any foreign objects.

Fire or electrical shock may be caused if water or any foreign objects, such as metal objects, enter inside the unit. Turn the power off immediately and contact qualified service personnel for service.

### Do not use this product in an inflammable atmosphere.

Failure to observe this may cause an explosion resulting in injury.

### Avoid installing this product in the locations where salt damage occurs or corrosive gas is produced.

Otherwise, the mounting portions will deteriorate and injury or accidents due to a fall of the product may occur.

### Do not strike or give a strong shock to this product.

Failure to observe this may cause injury or fire.

### Keep microSD memory cards away from infants and children.

Otherwise, they may swallow the cards by mistake.

In this case, consult a doctor immediately.

### Do not hang down from this product or use this product as a pedestal.

Failure to observe this may cause injury or accidents.

### Do not damage the power cable.

Do not damage, fabricate, twist, stretch, bundle, or forcibly bend the power cable. Do not place heavy objects on it, and keep it away from heat sources.

Use of a damaged power cable may cause electric shock, short circuit, or fire.

Consult the dealer for repair.

### Do not attempt to disassemble or modify this product.

Failure to observe this may cause fire or electric shock. Consult the dealer for the repair or inspections.

### Do not install or clean the camera, or touch this product, the power cable or the connected cables during thunder storms.

Failure to observe this may cause electric shock.

### 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.

### Stop the operation immediately when something is wrong with this product.

When smoke goes up from the product, the smell of smoke comes from the product, or the exterior of the product has deteriorated, continued use will cause a fire or fall of the product resulting in injury, or damage to the product. In this case, turn the power off immediately and contact qualified service personnel for service.

### Select an installation area that can support the total weight.

Selecting an inappropriate installation surface may cause this product to fall down or topple over, resulting in injury or accidents. Installation work shall be started after sufficient reinforcement.

### Periodic inspections shall be conducted.

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

### Turn the power off when do wiring of this product.

Failure to observe this may cause electric shock. In addition, short circuit or wrong wiring may cause fire.

### Install this product in a location high enough to avoid people and objects from bumping the product.

Failure to observe this may cause injury.

### The measures of protection against a fall of this product shall be taken.

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

Be sure to install the safety wire.

### Do not install this product in locations subject to vibration.

Loosening of mounting screws or bolts may cause a fall of the product resulting in injury or accidents.

### Correctly perform all wiring.

Short circuits in the wiring or incorrect wiring may cause fire or electrical shock.

### Install the product securely on a wall or a ceiling in accordance with the installation instructions.

Failure to observe this may cause injury or accidents.

### Do not rub the edges of metal parts with your hand.

Failure to observe this may cause injury.

### Turn the power off when cleaning this product.

Failure to observe this may cause injury.

## 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.
- For details concerning licensing and source code of open source software, click "Click here for OSS information" on "Support" page of the setup menu of this product and read the displayed content.
- Please note that we shall not respond to any inquiries regarding the contents of the source code.

## Copyright

Except for open source software licensed under GPL/LGPL and so on, distributing, copying, disassembling, reverse compiling and reverse engineering of the software provided with this product are all expressly prohibited. In addition, exporting any software provided with this product violating export laws is prohibited.

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- Intel and Intel Core are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.
- Adobe, Acrobat, and Reader are either registered trademarks or trademarks of Adobe in the United States and/or other countries.
- microSDXC Logo is a trademark of SD-3C, LLC.
- iPad and iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.
- Android and Google Chrome are trademark of Google LLC.
- Firefox is a trademark of the Mozilla Foundation in the US and other countries.
- The word "QR Code" is a registered trademark of DENSO WAVE INCORPORATED in Japan and other countries.
- All other trademarks identified herein are the property of their respective owners.

## Precautions for installation

**Panasonic i-PRO Sensing Solutions 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 a ceiling or wall according to Installation Guide.

#### Installation area for this product

- Select an appropriate place for the installation area (such as a strong wall or ceiling) 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.

#### This camera is designed to be used indoors

This product is not operable outdoors. Do not expose this camera to direct sunlight for hours and do not install the product near a heater or an air conditioner. Otherwise, it may cause deformation, discoloration and malfunction. Keep this camera away from water and moisture.

#### Do not place this product in the following places

- Locations where 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 where it may get directly wet from rain or water splash (including under the eaves, etc.)
- Locations subject to moisture or dust
- Locations subject to sudden changes in temperature such as near air discharge vents of air conditioners or air circulation inlet doors
- Locations near rubber products (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 from outside or IR light

A ghost may appear on the screen depending on the incident angle of external light. In the case of using the IR light, installation of a camera near a wall may cause reflection of infrared rays resulting in a part of the screen or the entire screen turning whitish. Refer to our support 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 lens.

#### 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.

#### 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 {3-15/16 inches} away from them or conduct the electric conduit work using metal pipes. (Be sure to make ground connection of the metal pipes.)

#### Make sure to remove this product if it will no longer be used.

#### This product has no power switch.

When turning off the power, disconnect the power supply from the 12 V DC power supply or the PoE device.

#### About the battery

A battery is installed inside the camera. Do not leave the battery exposed in environments of excessive heat as a result of sunlight or fire.

#### 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.

## Troubleshooting

Before requesting service, refer to "Troubleshooting" of Basic Information and Operating Instructions. Then, confirm the trouble.

## Specifications

*For further information, refer to the Basic Information.	
Power source *1:	DC 12 V PoE (IEEE802.3af compliant)
Power consumption *1:	DC 12 V: 480 mA/Approx. 5.8 W PoE DC 48 V: 130 mA/Approx. 6.3 W (Class 2 device)
Operating environment Ambient operating temperature:	-10 °C to +50 °C {14 °F to 122 °F} (Power on range 0 °C to 50 °C {32 °F to 122 °F})
Ambient operating humidity:	10 % to 90 % (no condensation)
Storage environment Storage temperature: Storage humidity:	-30 °C to +60 °C [-22 °F to +140 °F] 10 % to 95 % (no condensation)
Monitor output (for adjustment):	VBS: 1.0 V [p-p]/75 Ω, composite, Pin jack An NTSC or PAL signal can be outputted from camera (either press the INITIAL SET button quickly (within 1 second) or use software to select NTSC or PAL signal).
EXT I/O terminals:	ALARM IN1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN3 (Alarm input 3/ AUX OUT) (x1)
Audio input: For microphone input:	ø3.5 mm stereo mini jack Recommended applicable microphone: Plug-in power type (Sensitivity of microphone: -48 dB±3 dB (0 dB=1 V/Pa, 1 kHz)) Input impedance: Approx. 2 kΩ (unbalanced) Supply voltage: 2.5 V ±0.5 V Input level: Approx. -10 dBV
Audio output: For line input:	ø3.5 mm stereo mini jack (Audio output is monaural.) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV
Dimensions:	75 mm (W) × 57 mm (H) × 146 mm (D) {2-15/16 inches} (W) × {2-1/4 inches} (H) × {5-3/4 inches} (D) (excluding lens/ power cord plug)
Mass:	Approx. 370 g {0.82 lbs}
Finish:	PC/ABS resin (i-PRO white)

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

## Optional accessories



The latest information → Support website "Accessory Selector" <Control No.: C0501>

## Standard accessories

Installation Guide (this document) .....1 pc.      Warranty card .....1 pc.  
IMPORTANT SAFETY INSTRUCTIONS .....1 pc.      Code label \*1 .....1 pc.

\*1 This label may be required for network management. Use caution not to lose this label.

### The following parts are used during installation procedures.

Power cord plug .....1 pc.      Safety wire .....1 pc.  
Mount base .....1 pc.      Washer .....1 pc.  
Safety wire lug .....1 pc.      Spring washer .....1 pc.

Wire lug fixing screws  
(M2.5 × 8 mm {5/16 inches}) .....2 pc.  
(of them, 1 for spare)



Basic Information "Mount base"

## Other items that are needed (not included)

### \*Fixing screw

Installation method	Recommended screw *1	Minimum pull-out strength (per 1 pc.) *2
<b>For mounting on ceiling</b> Mount bracket: 260 g {0.57 lbs} Camera: 370 g {0.82 lbs}	M6 x 16 mm *3 *4 {5/8 inches} x 4 pcs.	562 N {126 lbf} *5
	M4 x 16 mm *3 {5/8 inches} x 1 pc.	24.5 N {5.5 lbf}
<b>For mounting on wall</b> Mount bracket: 420 g {0.93 lbs} Camera: 370 g {0.82 lbs}	M6 x 16 mm *3 *4 {5/8 inches} x 4 pcs.	724 N {163 lbf} *5
	M4 x 16 mm *3 {5/8 inches} x 1 pc.	24.5 N {5.5 lbf}

\*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 support website <Control No.: C0120>.

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

\*4 The number of required screws or anchor bolts varies depending on the specific cations of the mount bracket (locally procured). Refer to the operating instructions of the mount bracket (locally procured) for information about how to mount the mount bracket.

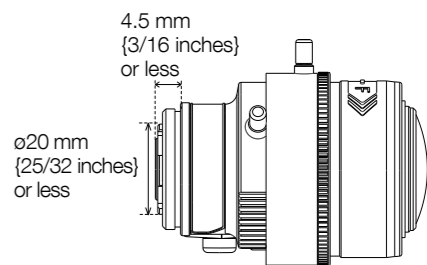
\*5 Make sure that the screws or anchor bolts separately procured when locally procuring a mount bracket for the ceiling or wall are capable of supporting the total weight (including the moment when mounting to a wall).

- Ethernet cable with RJ45 plug (category 5e or better, straight, 4 pairs (8 pins))
- As necessary, audio input cable, audio output cable, alarm I/O cables, power supply cable
- Tools
- Compatible lens

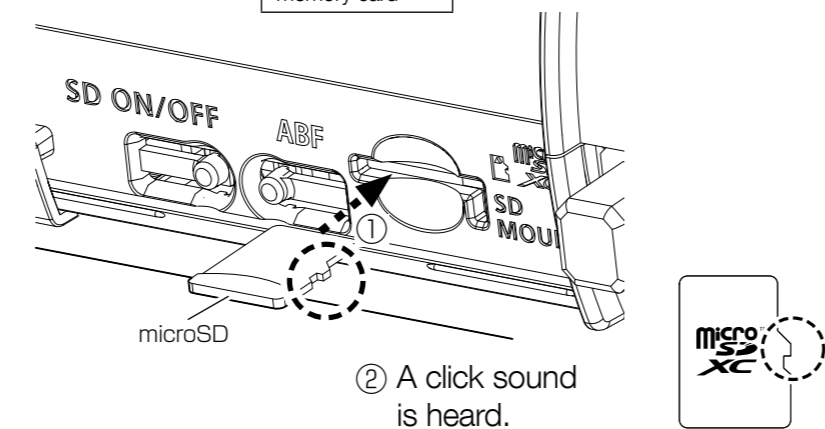
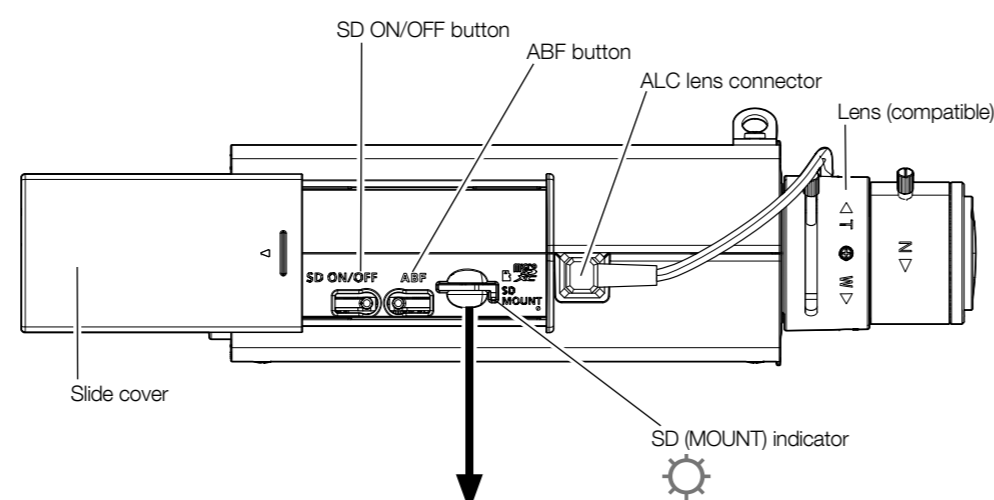
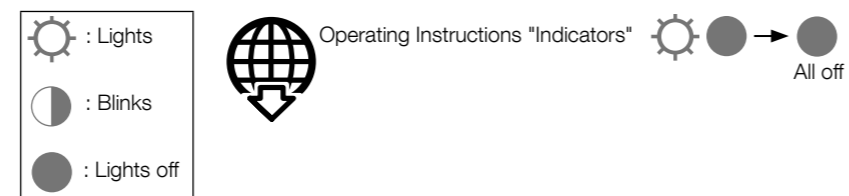
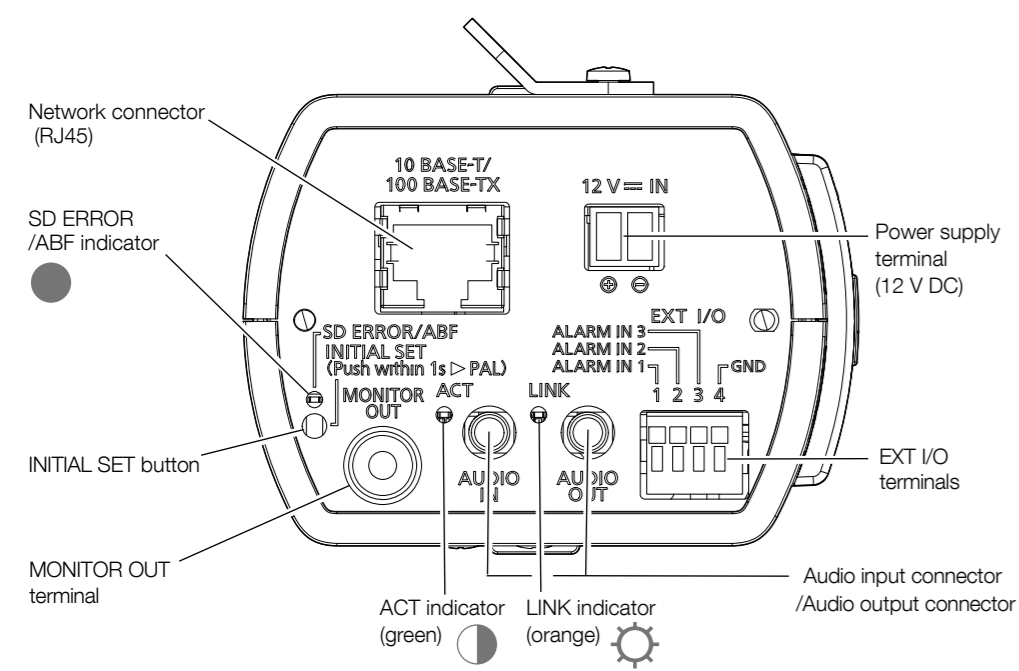


Support website "Compatible lens" <Control No.: C0102>

\* When using a lens made by other companies, use a lens that has a protruded portion from the mount face of ø20 mm {25/32 inches} or less and a protruded portion from the flange face of 4.5 mm {3/16 inches} or less. Lenses without a focus adjustment mechanism and zoom lenses cannot be used.

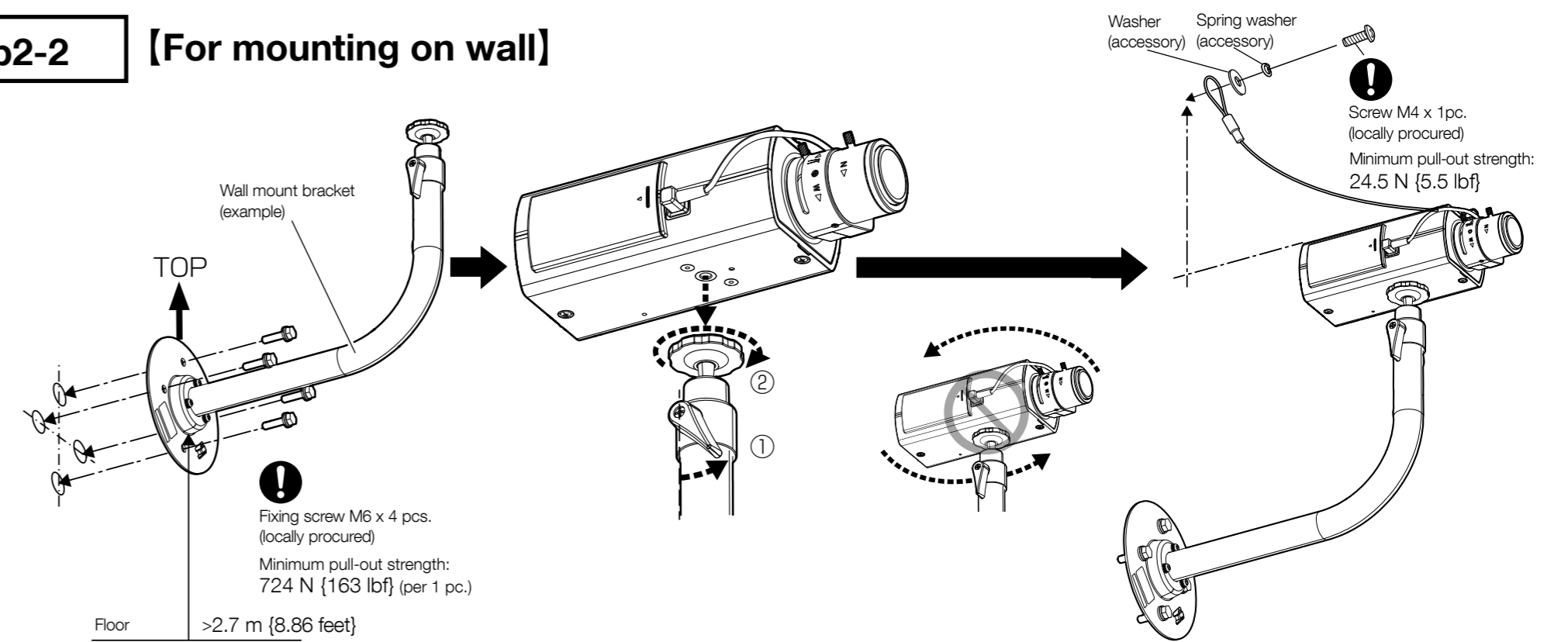


## Parts and functions

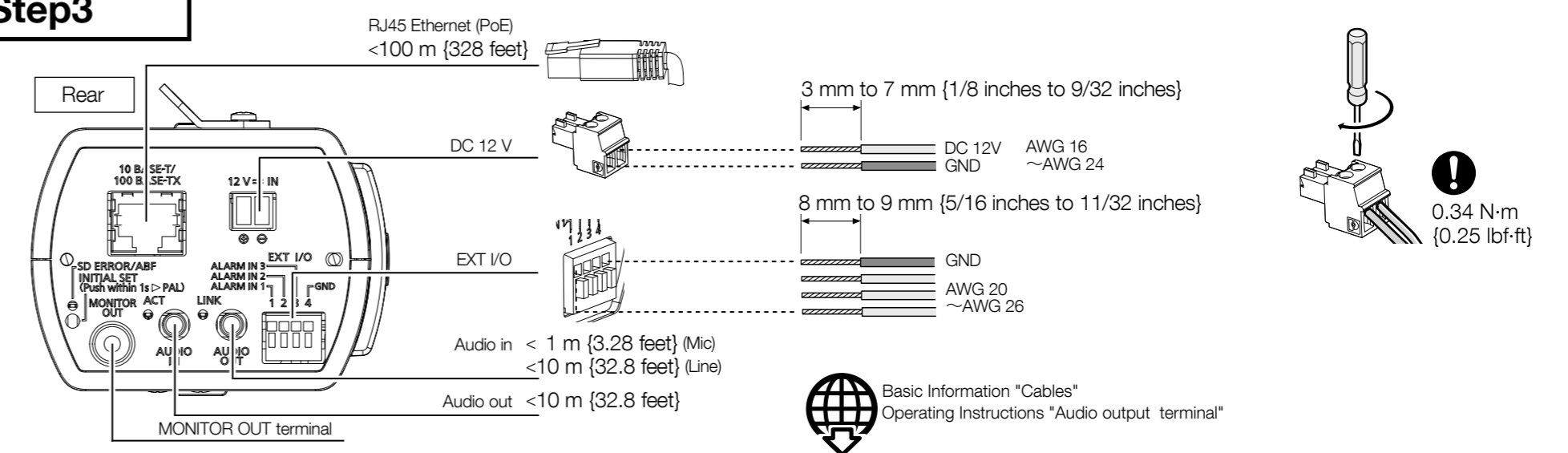


Operating Instructions "Format the microSD memory card"  
Support website "Compatible microSD memory card" <Control No.: C0107>

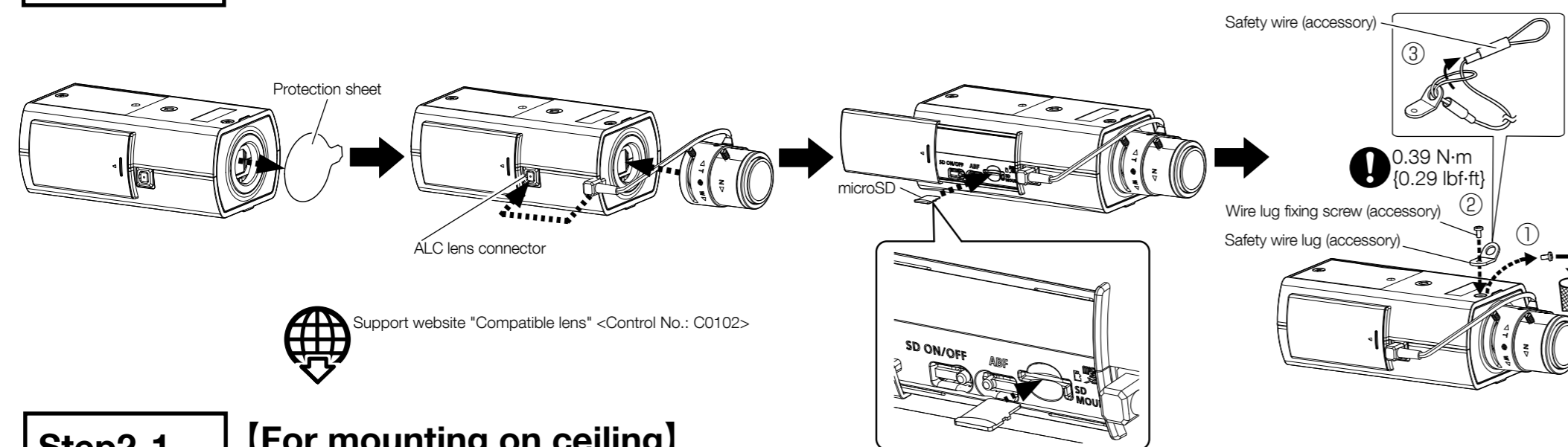
## Step2-2 [For mounting on wall]



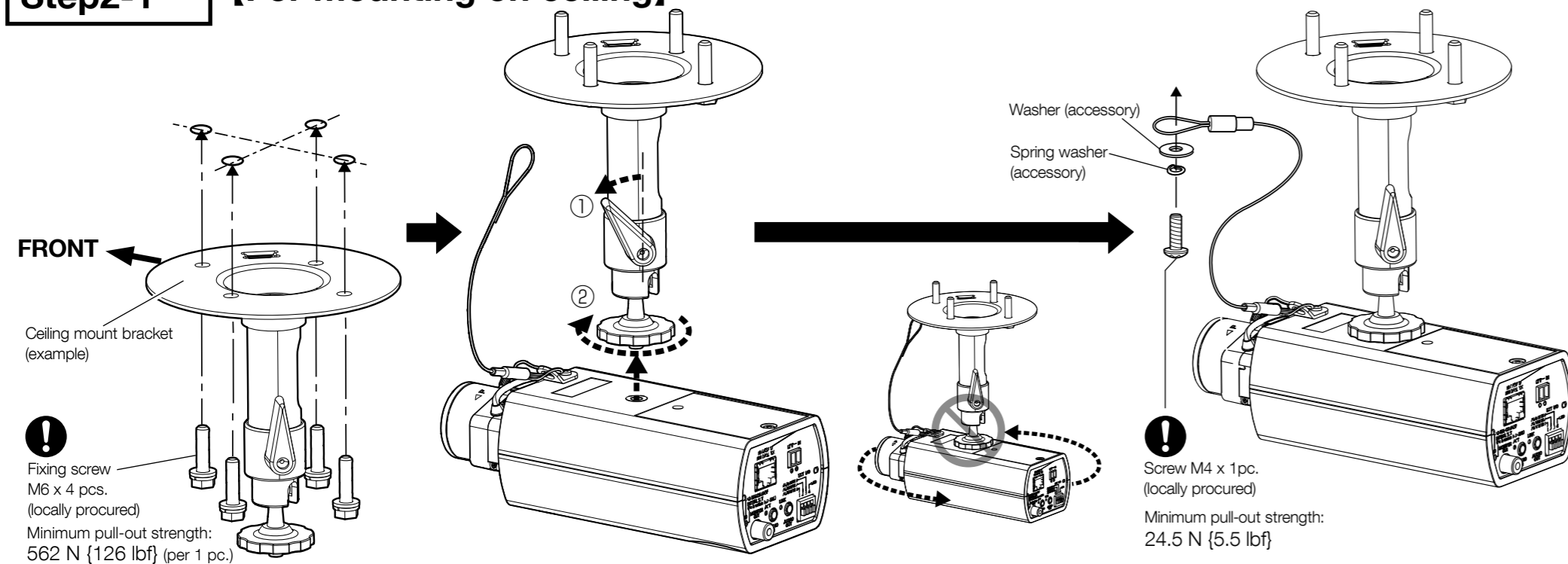
## Step3



## Step1 Preparations

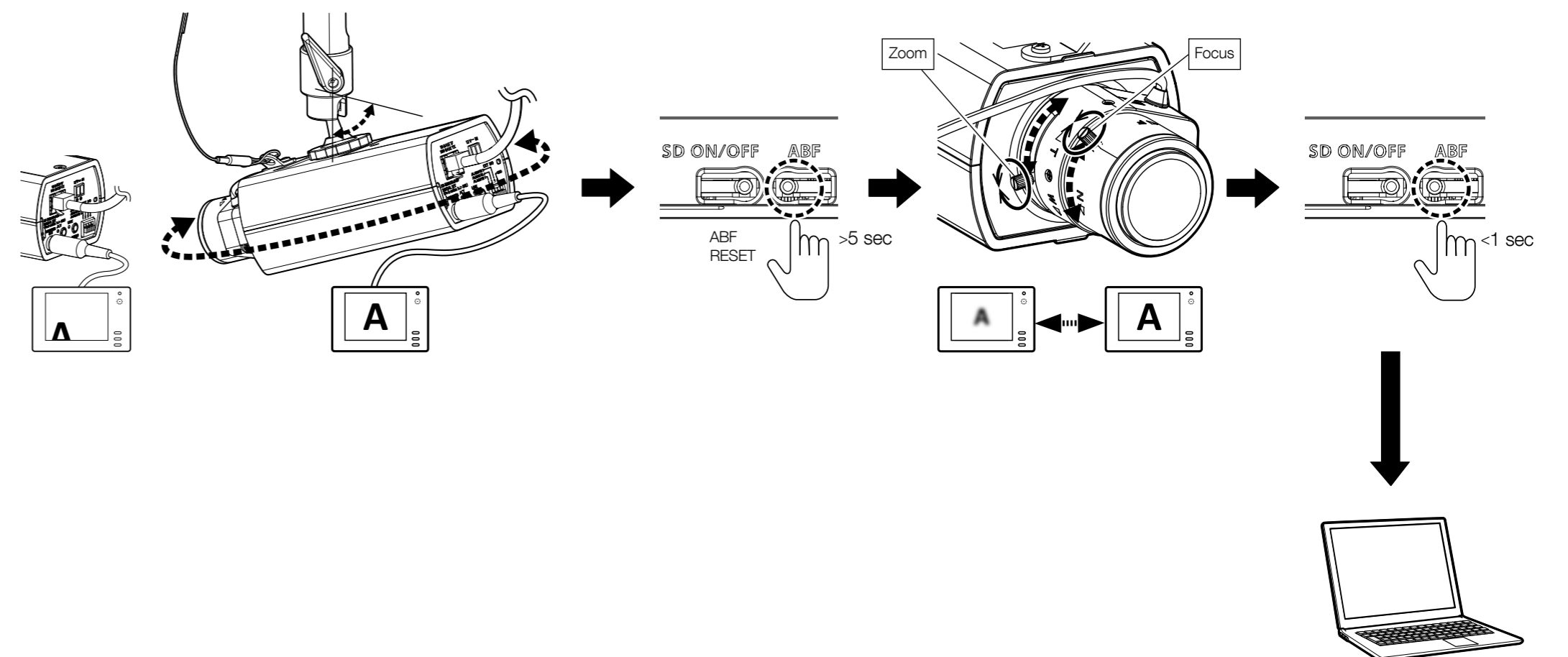


## Step2-1 [For mounting on ceiling]



## Step4

→Power On (DC 12 V/PoE)  
Remove the protection film from the lens.



Support website "IP Setting Software" <Control No.: C0123>  
"Extra optical zoom" <Control No.: C0124>  
"How to take a wide depth of field" <Control No.: C0127>







