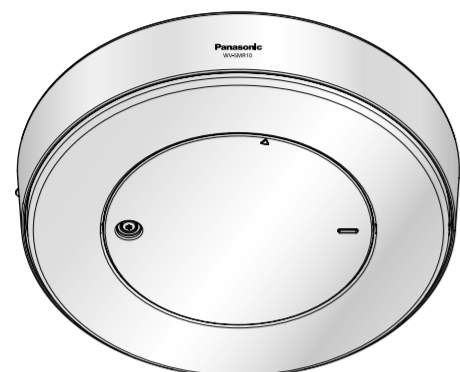


## Installation Guide

Included Installation Instructions

### Network Microphone

Model No. WV-SMR10



- This manual describes the installation procedures, network microphone installation, and cable connections.
- Before reading this manual, be sure to read the Important Information.

#### For U.S. and Canada:

**Panasonic System Communications Company of North America, Unit of Panasonic Corporation of North America**  
www.panasonic.com/business/  
For customer support, call 1.800.528.6747  
Two Riverfront Plaza, Newark, NJ 07102-5490

**Panasonic Canada Inc.**  
5770 Ambler Drive, Mississauga, Ontario, L4W 2T3 Canada  
(905)624-5010  
www.panasonic.ca

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#### For Europe and other countries:

**Panasonic Corporation**  
http://panasonic.net

Panasonic System Networks Co., Ltd.  
Fukuoka, Japan

Authorised Representative in EU:

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

PGQX1516YA Cs0614-1074 Printed in China



## Standard accessories

Important Information ..... 1 pc. Installation Guide (this document) ..... 1 set  
Warranty card ..... 1 set CD-ROM\*1 ..... 1 pc.  
Code label\*2 ..... 1 pc.

\*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.  
\*2 This label may be required for network management. The network administrator shall retain the code label.

The following parts are used during installation procedures.

A Attachment ..... 1 pc. D Adapter (for WV-SW458) ..... 1 pc.  
B Power cable plug ..... 1 pc. E Installation template ..... 1 pc.  
C Adapter ..... 1 pc. F Bit ..... 1 pc.  
(for WV-SF438/ WV-SF448/ WV-SF448E)

#### • About the [INITIAL SET] button

Follow the steps below to initialize the network microphone.

- 1 Turn off the power of the microphone. When using a PoE hub, disconnect the LAN cable from the microphone. When using an external power supply, disconnect the power cable plug from the 12 V DC power supply terminal.
- 2 Turn on the power of the microphone while holding down the INITIAL SET button, and then keep holding down the button for 5 seconds or more. About 3 minutes later, the microphone will start up and the settings including the network settings will be initialized.

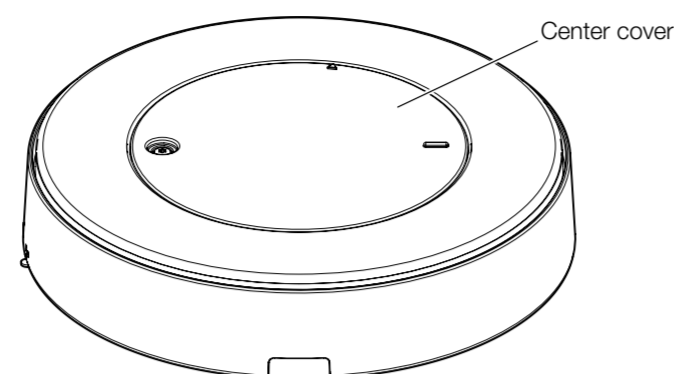
#### IMPORTANT:

- When the microphone is initialized, the settings including the network settings will be initialized. Note that the CRT key (SSL encryption key) used for the HTTPS protocol will not be initialized.
- Before initializing the settings, it is recommended to write down the settings in advance.
- Do not turn off the power of the microphone during the process of initialization. Otherwise, it may fail to initialize and may cause malfunction.

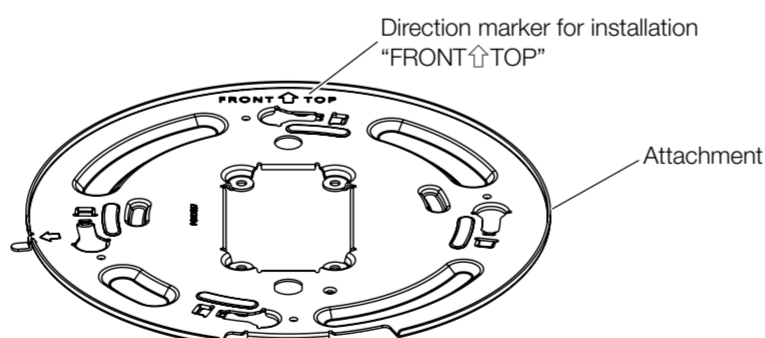
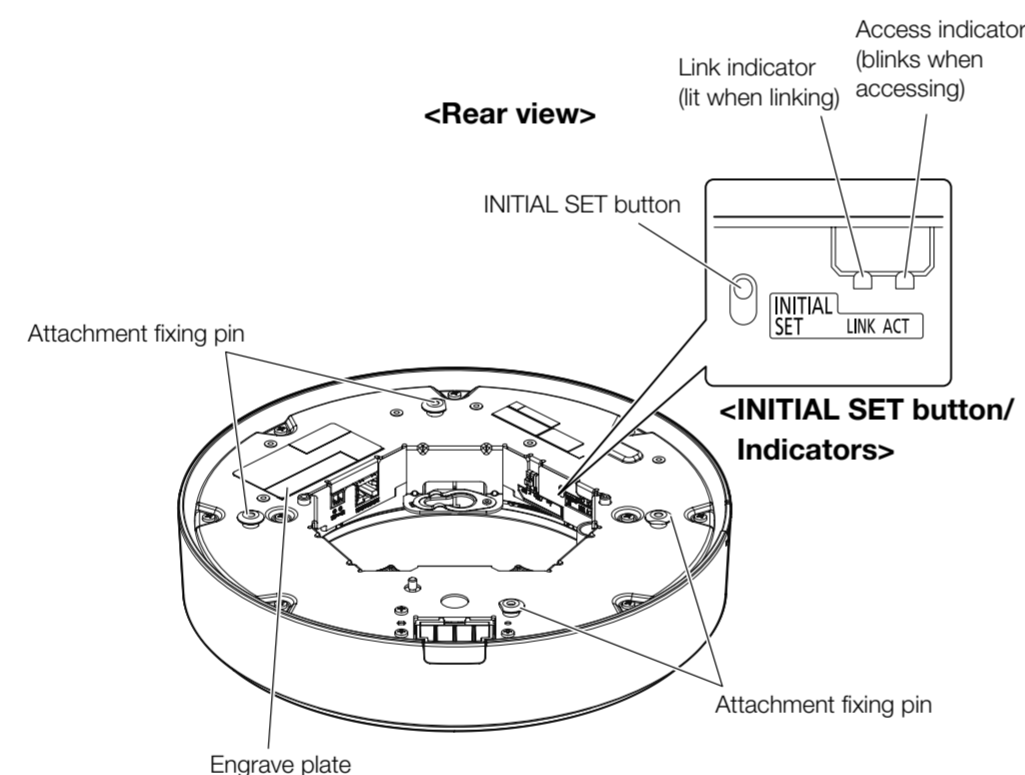
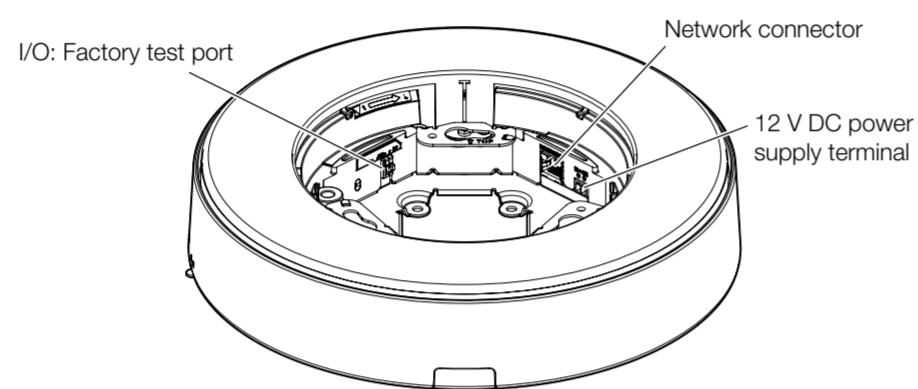
#### • About the indicators

The Access indicator and Link indicator can be turned off (indicators are set to light or blink in the default settings). Turn off the indicators as required according to the installation environment. For details, refer to the Operating Instructions (included in the CD-ROM).

## Major operating controls



<Inside view of the center cover (with the center cover removed)>



## Installation

The installation tasks are explained using 5 steps.

- Step1**  
Check the connection cable and prepare in advance
- Step2**  
Mount the brackets to a ceiling or wall
- Step3**  
Mount the microphone to a bracket and connecting the cable
- Step4**  
Mount the camera to the microphone and connect the cable to the camera
- Step5**  
Configure the microphone audio so that it can be accessed from a PC

### Step1 Check the connection cable and prepare in advance

#### Caution:

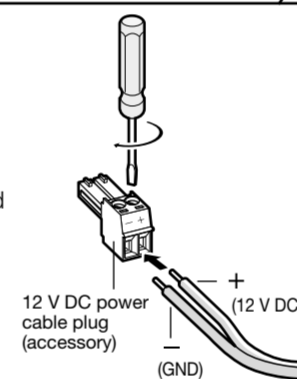
- A READILY ACCESSIBLE DISCONNECT DEVICE SHALL BE INCORPORATED TO THE EQUIPMENT POWERED BY 12 V DC POWER SUPPLY.
- ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER SOURCE (IEC/EN/UL/CSA 60950-1).

Before starting the connection, turn off the power of this microphone and the devices to be connected.  
Check and prepare the required devices and cables for connection.

#### Connect the power cable

Connect the output cable of the AC adaptor to the power cable plug (accessory).

- 1 Loosen the screw of the power cable plug (accessory), strip 3 mm to 7 mm {1/8 inches to 9/32 inches} from the end of the wire, twist the stripped part of the wire sufficiently to avoid short circuit, and then connect the output cable to the power cable plug (accessory).
- 2 Tighten the screw of the power cable plug. (Recommended tightening torque: 0.34 N·m {0.25 lbf·ft}.)



#### Note:

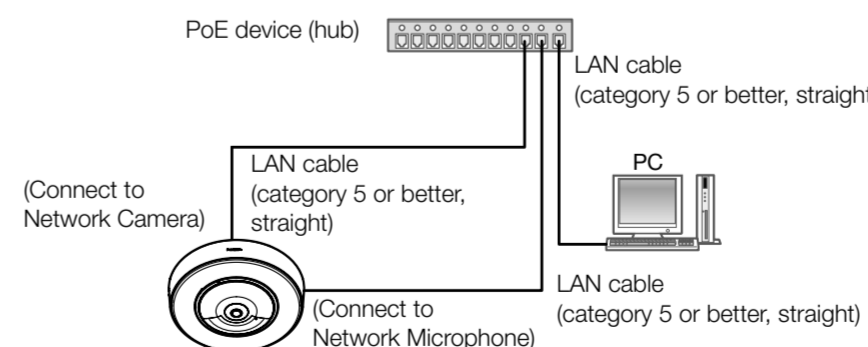
- Check whether the stripped part of the wire is not exposed and is securely connected.
- When connecting an external power supply to the microphone, use the 16 AWG to 24 AWG single-wired or stranded wired cables.

#### IMPORTANT:

- The 12 V DC power supply shall be insulated from the commercial AC power.
- Be sure to use the power cable plug provided with this product.
- Be sure to fully insert the power cable plug into the 12 V DC power supply terminal. Otherwise, it may damage the microphone or cause malfunction.
- When installing the microphone, make sure that excessive force is not applied to the power cable.
- Be sure to use an AC adaptor compliant with the specifications (written in the engrave plate on the bottom side of this unit) regarding power source and power consumption.

#### When connecting to a network using a PoE hub

Before starting the installation, check the entire system configuration. The following illustration gives a wiring example of how to connect the microphone and camera to the network via a PoE device (hub).



#### IMPORTANT:

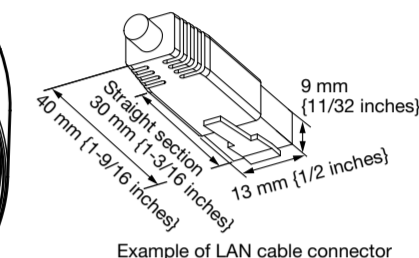
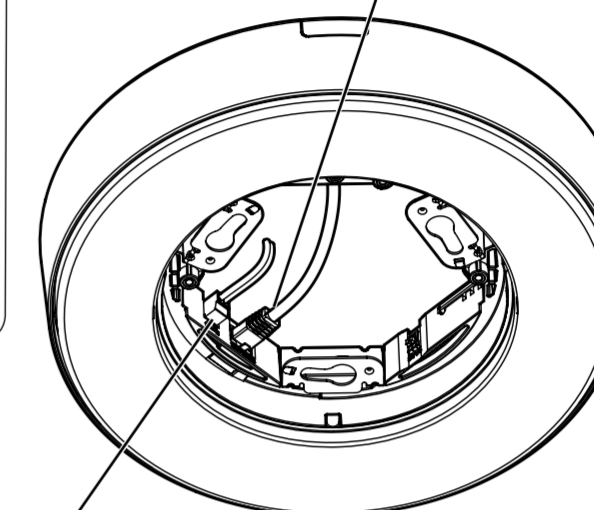
- Use a switching hub or a router which is compliant with 10BASE-T/100BASE-TX.
- If a PoE hub is not used, each network microphone must be connected to a 12 V DC power supply.
- When using 12 V DC, power supply from a PoE hub or router is not required.
- The network microphone is only intended for a connection to an ethernet or PoE network without routing to the outside plant.

#### Connect a LAN cable (category 5 or better, straight)

Connect a LAN cable (category 5 or better, straight) to the network connector.

#### IMPORTANT:

- Use all 4 pairs (8 pins) of the LAN cable.
- The maximum cable length is 100 m {328 feet}.
- Make sure that the PoE device in use is compliant with IEEE802.3af standard.
- When connecting both the 12 V DC power supply and the PoE device for power supply, the PoE device will be used for power supply.\*
- \* Depending on the PoE device used, if you operate the 12 V DC power supply and a PoE hub or router at the same time, the power supply may stop, causing the microphone to restart.
- When the LAN cable is disconnected once, reconnect the cable after around 2 seconds. When the cable is quickly reconnected, the power may not be supplied from the PoE device.



#### Note:

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

### Step2 Mount the brackets to a ceiling or wall

There are 4 methods to install the microphone to a ceiling or wall as described below. Prepare the required parts for each installation method before starting the installation. The following are the requirements for the various installation methods.

- 1 **When a ceiling or wall sufficiently supports the total weight**
  - Mounting [1] and [2] are possible.

#### IMPORTANT:

- Procure 4 screws (M4) to secure the attachment (accessory) to a ceiling or a wall according to the material of the installation area. In this case, wood screws and nails should not be used. For mounting a microphone on a concrete wall, use an anchor bolt (M4) or an AY plug bolt (M4) for securing. (Recommended tightening torque: 1.6 N·m {1.18 lbf·ft}.)
- Mount the attachment (accessory) in consideration of the microphone angle in accordance with the instructions.
- Required pull-out capacity of a single screw/bolt is 196 N {44 lbf} or more.

- 2 **When a ceiling insufficiently supports the total weight**
  - Mounting [3] is possible.

#### IMPORTANT:

- If a ceiling board such as plaster board is too weak to support the total weight, the area shall be sufficiently reinforced or the optional ceiling mount bracket for the microphone, WV-Q105A, must be used.

- 3 **When you want to hang the microphone from a ceiling using a ceiling mount bracket**
  - Mounting [4] is possible.

#### IMPORTANT:

- When hanging this microphone from a ceiling, use the optional WV-Q117A or a sufficiently reinforced mount bracket.

- 4 **When a wall insufficiently supports the total weight**

#### IMPORTANT:

- If a wall board such as plaster board is too weak to support the total weight, the area shall be sufficiently reinforced.

Installation method	Recommended screw	Minimum pull-out strength (per 1 pc.)
[1] Using a two-gang junction box	M4 screws x 4	196 N {44 lbf}
[2] Installing the microphone directly on the ceiling or wall	M4 screws x 4	196 N {44 lbf}
[3] Using the optional ceiling mount bracket WV-Q105A*1	*2	*3
[4] Using the optional ceiling pendant type mount bracket WV-Q117A*1	*2	*3

\*1 For information on mounting the microphone using WV-Q117A or WV-Q105A, refer to the Instructions provided with the WV-Q117A or WV-Q105A.

\*2 For information about screws or anchor bolts when mounting the microphone using WV-Q117A or WV-Q105A, refer to the Instructions provided with the WV-Q117A or WV-Q105A.

\*3 Make sure that the installed mount bracket can support more than 5 times the weight of the mount bracket, microphone, and camera.

## Step2 Mount the brackets to a ceiling or wall (Continued)

### [1] Using a two-gang junction box

Secure the attachment (accessory) to the two-gang junction box built in a ceiling or wall using the fixing screws (4 pcs. (M4), locally procured).

#### Note:

- The direction of "FRONT↑TOP" on the attachment (accessory) determines the upwards direction of the image on the PC monitor when connecting the camera.
- For ceiling mounting: Determine the direction that you want images to be displayed upwards on the PC monitor, and then mount the attachment (accessory) with "FRONT↑TOP" facing this direction.
- For wall mounting: The attachment (accessory) shall be mounted with "FRONT↑TOP" facing upward.

### [2] Installing the microphone directly on the ceiling or wall

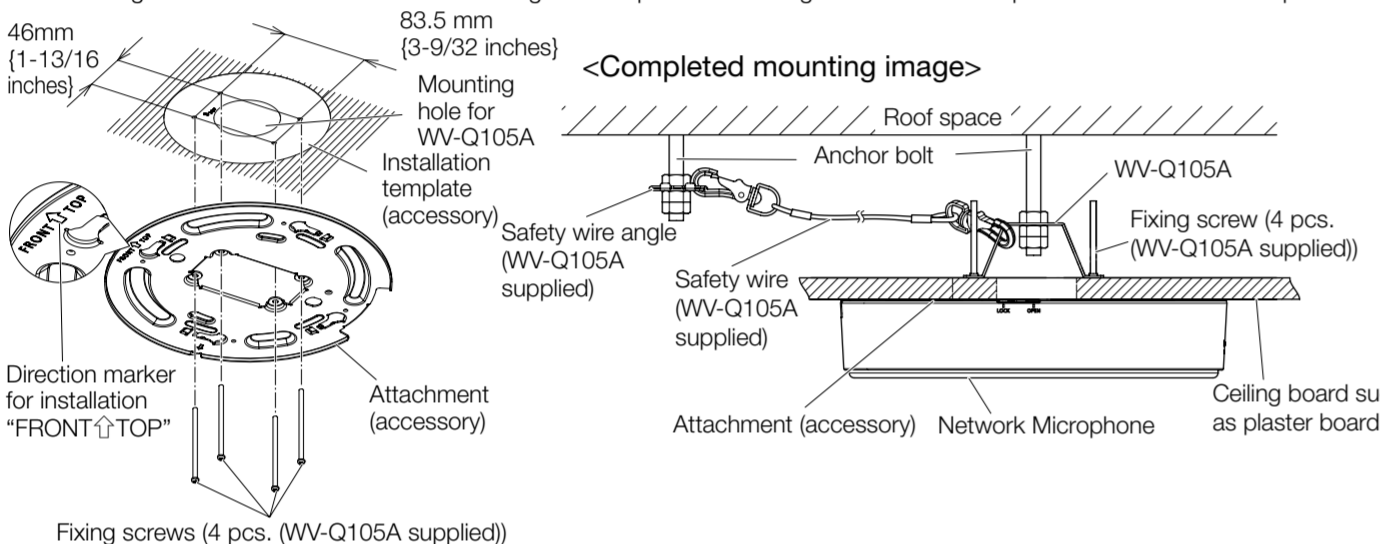
Make holes on the ceiling or wall for the cable and fixing screws using the installation template (accessory). Next, mount the attachment (accessory) using fixing screws (4 pcs. (M4), locally procured).

#### Note:

- The direction of "FRONT↑TOP" on the attachment (accessory) determines the upwards direction of the image on the PC monitor when connecting the camera. Determine the direction that you want images to be displayed upwards on the PC monitor, and then install so that the direction of the arrow shown on the installation template (accessory) is aligned with "FRONT↑TOP" of the attachment (accessory).

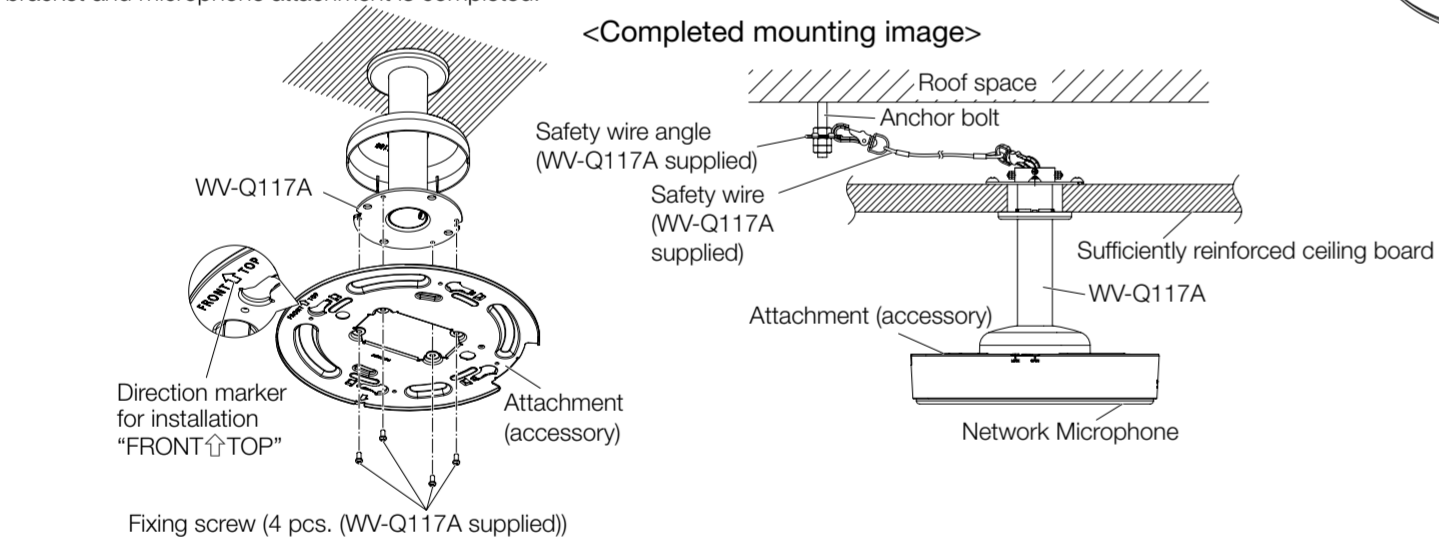
### [3] Using the optional ceiling mount bracket WV-Q105A

When using the optional ceiling mount bracket to mount the microphone, first place the installation template (WV-Q105A accessory) on the ceiling, and then make a hole in the ceiling and mount the WV-Q105A. Next, mount the attachment (accessory) using fixing screws (4 screws: WV-Q105A accessory). Refer to WV-Q105A Operating Instructions for information on how to mount the microphone when using the optional mounting bracket. The following illustration shows when the mounting for the optional mounting bracket and microphone attachment is completed.



### [4] Using the optional ceiling pendant type mount bracket WV-Q117A

When using the optional ceiling pendant type mount bracket to mount the microphone, first place the installation template (WV-Q117A accessory) on the ceiling, and then make a hole in the ceiling and mount the WV-Q117A. Next, mount the attachment (accessory) using fixing screws (4 screws: WV-Q117A accessory). Refer to WV-Q117A Operating Instructions for information on how to mount the microphone when using the optional ceiling pendant type mount bracket and microphone attachment is completed.

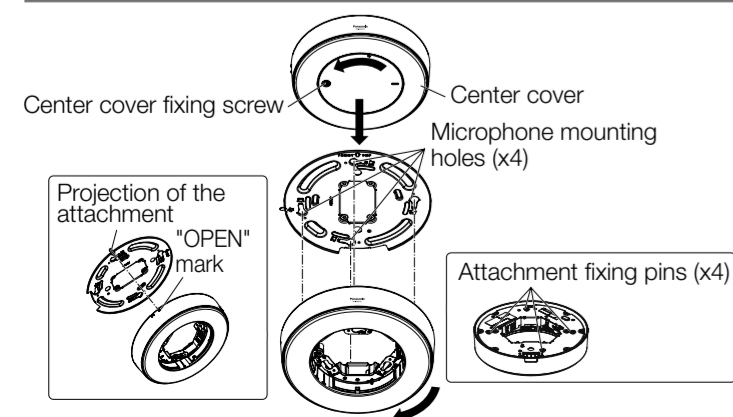


## Step3 Mount the microphone to a bracket and connecting the cable

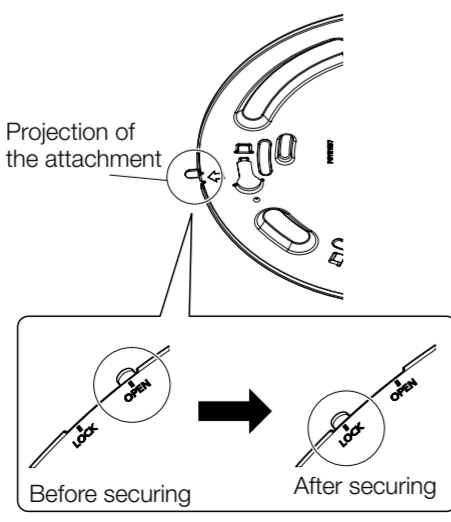
- 1 Remove the center cover by removing the fixing screws and then rotating the center cover itself in the direction of the arrow.
- 2 Align the position so that the "OPEN" mark on the side of the microphone matches the projection of the attachment, engage the 4 attachment fixing pins in the back of the microphone with the microphone mounting holes of the attachment, rotate the microphone in the direction of the arrow, and align the projection with the "LOCK" mark to temporarily secure the microphone.

#### Note:

- Remove the center cover fixing screw using the bit (accessory).



- 3 After temporarily securing the microphone, make sure that the projection of the attachment has changed from the "OPEN" mark position to the "LOCK" mark position.
- 4 Tighten the microphone fixing screw.
- 5 Pull out the cables from the ceiling, and then connect them to the microphone.

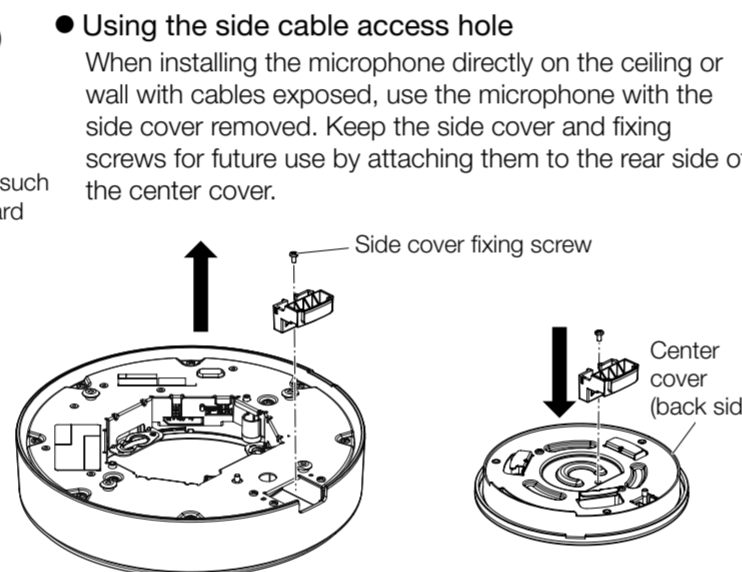
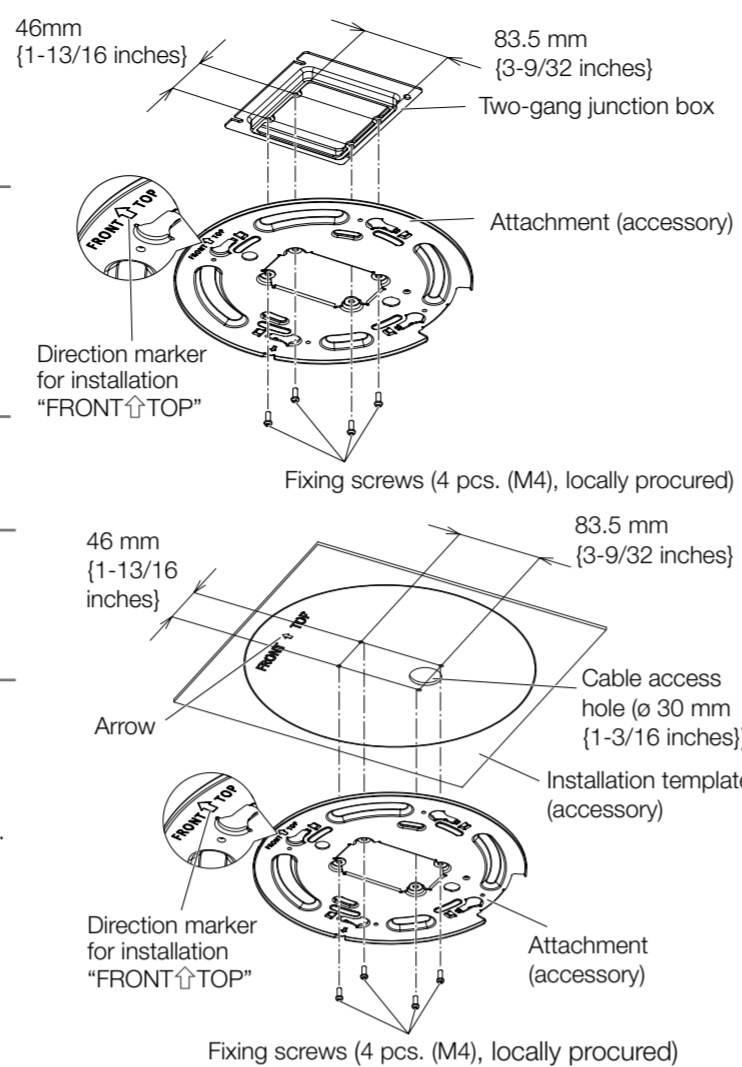


#### Note:

- Tighten the microphone fixing screw using the bit (accessory).

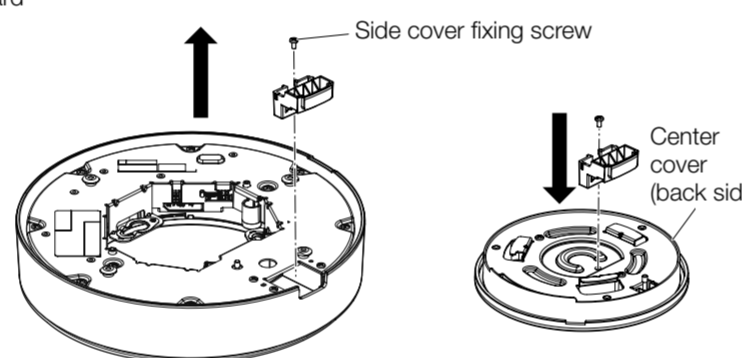
#### IMPORTANT:

- Securely tighten the microphone fixing screw. Failure to do so may cause the microphone to drop. (Recommended tightening torque: 0.78 N·m [0.58 lbf·ft].)



#### Using the side cable access hole

When installing the microphone directly on the ceiling or wall with cables exposed, use the microphone with the side cover removed. Keep the side cover and fixing screws for future use by attaching them to the rear side of the center cover.

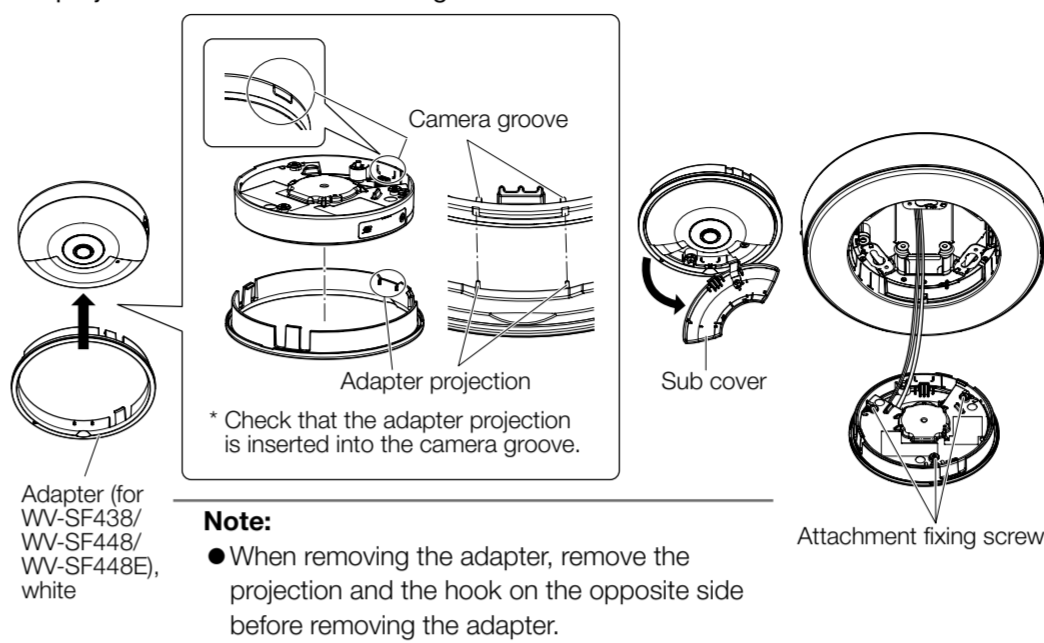


## Step4 Mount the camera to the microphone and connect the cable to the camera

Refer to the operating instructions of the camera for information about connecting cables.

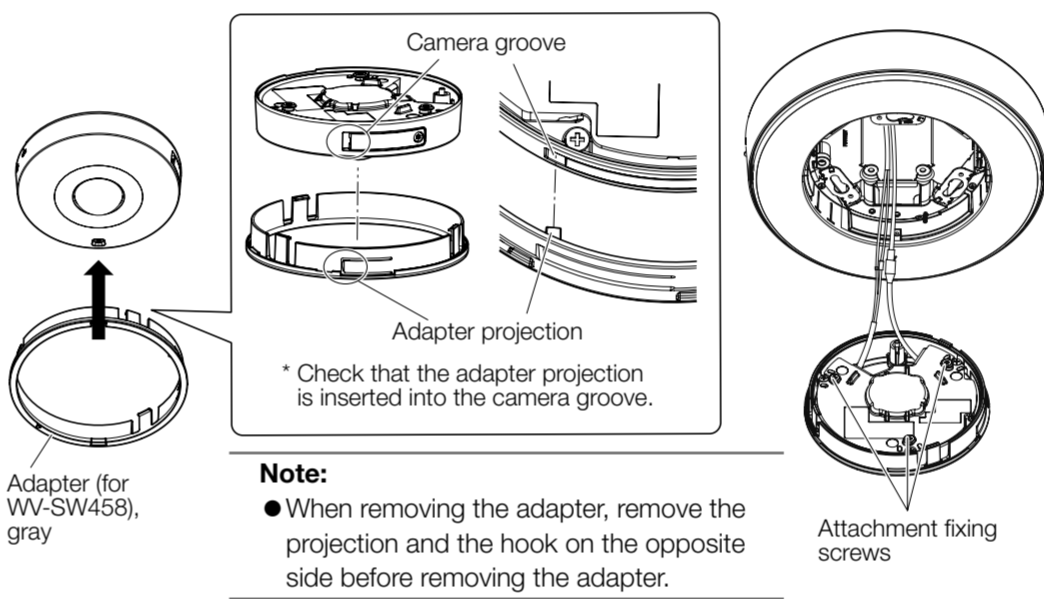
<When attaching the WV-SF438/ WV-SF448/ WV-SF448E> (This illustration represents the WV-SF438.)

- 1 Attach the adapter so that the adapter projection matches the camera groove.
- 2 Open the sub cover of the camera, and then connect the cables.

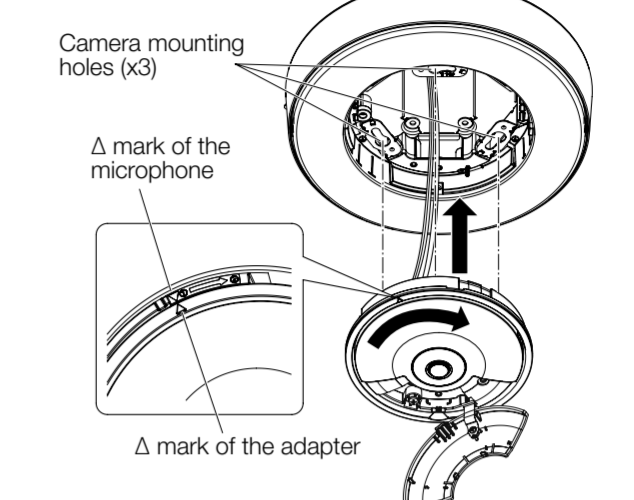


<When attaching the WV-SW458>

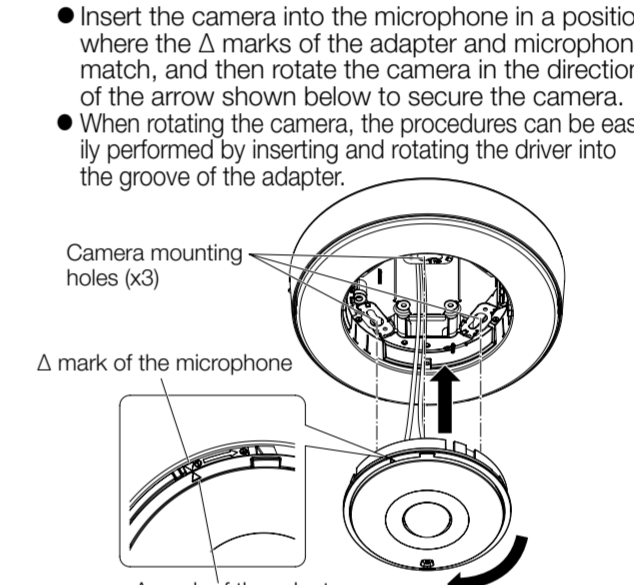
- 1 Attach the adapter so that the adapter projection matches the camera groove.
- 2 Connect cables to the camera.



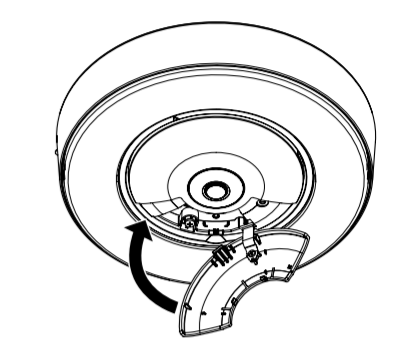
- 3 Engage the attachment fixing screws in the rear of the camera with the camera mounting hole of the microphone and rotate the camera in the direction of the arrow shown below to temporarily secure the camera.



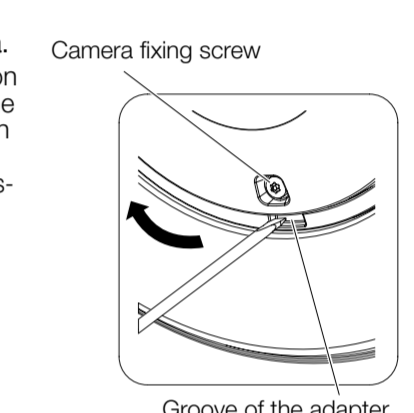
- 3 Engage the attachment fixing screws in the rear of the camera with the camera mounting hole of the microphone and rotate the camera in the direction of the arrow shown below to temporarily secure the camera.



- 4 Tighten the camera fixing screw.



- 4 Tighten the camera fixing screw.



## Step5 Configure the microphone audio so that it can be accessed from a PC

### Configuring the microphone so that it can be accessed from a PC

The following are descriptions for when the microphone with default settings is configured. If you are using firewall software on your PC, the Setup Program may not be able to find any microphones on your network. Configure the setting of the microphone after temporarily invalidating the firewall software. Contact the network administrator or your Internet service provider for information about configuring the settings of the network.

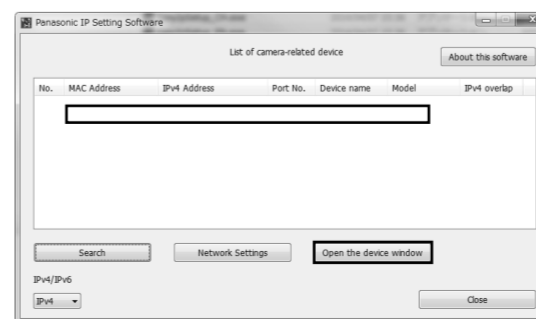
- 1 Insert the provided CD-ROM into the CD-ROM drive of your PC.
  - The License Agreement will be displayed. Read the Agreement and choose "I accept the term in the license agreement", and click [OK].
  - The launcher window will be displayed. If the launcher window is not displayed, double click the "CDLauncher.exe" file on the CD-ROM.



#### Note:

- Refer to "Using the CD-ROM" in the Operating Instructions on the provided CD-ROM for further information about CDLauncher.

- 2 Click the [Run] button next to [IP Setting Software]. [Panasonic IP Setting Software] screen will be displayed. When a microphone is found, information about it, such as its MAC address and IP address, is displayed.
- 3 Select the microphone you want to configure, and click [Open device window].



#### Note:

- When microphones are displayed in [Panasonic IP Setting Software] screen, click the microphone with the same MAC address as the MAC address printed on the microphone that you want to configure.
- 4 If the installation screen of the plug-in software "Network Microphone Plugin" is displayed, follow the instructions of the wizard to start the installation. (The plug-in software is installed from the microphone.)
    - The microphone setup screen will be displayed.
    - If you cannot install the plug-in software "Network Microphone Plugin" or if audio cannot be heard, click the [Install] button next to [Plug-in software] on the launcher window to install the software.
    - Perform the [Time & date] settings in the "Setup" - "Basic" page before using the microphone.

#### Note:

- When the microphone setup screen is not displayed, refer to the Troubleshooting in the Operating Instructions on the provided CD-ROM.
- It is possible to enhance the network security by encrypting the access to microphone using the HTTPS function. Refer to the Operating instructions on the provided CD-ROM for how to configure the HTTPS settings.
- Click the [Setup] button on the setup menu, the user authentication window will be displayed. Enter the default user name and password as follows, and log in.
  - User name: admin
  - Password: 12345
- When changing settings related to the network settings, such as connection mode, IP address, and subnet mask, click the [Network Settings] button in [Panasonic IP Setting] screen as shown in step 3, then change each setting.
- Due to security enhancements in "IP Setting Software", "Network settings" of the microphone to be configured cannot be changed when around 20 minutes have passed after turning on the power of the microphone. (When the effective period is set to "20 min" in the "Easy IP Setup accommodate period".) However, settings can be changed after 20 minutes for microphones in the initial set mode.