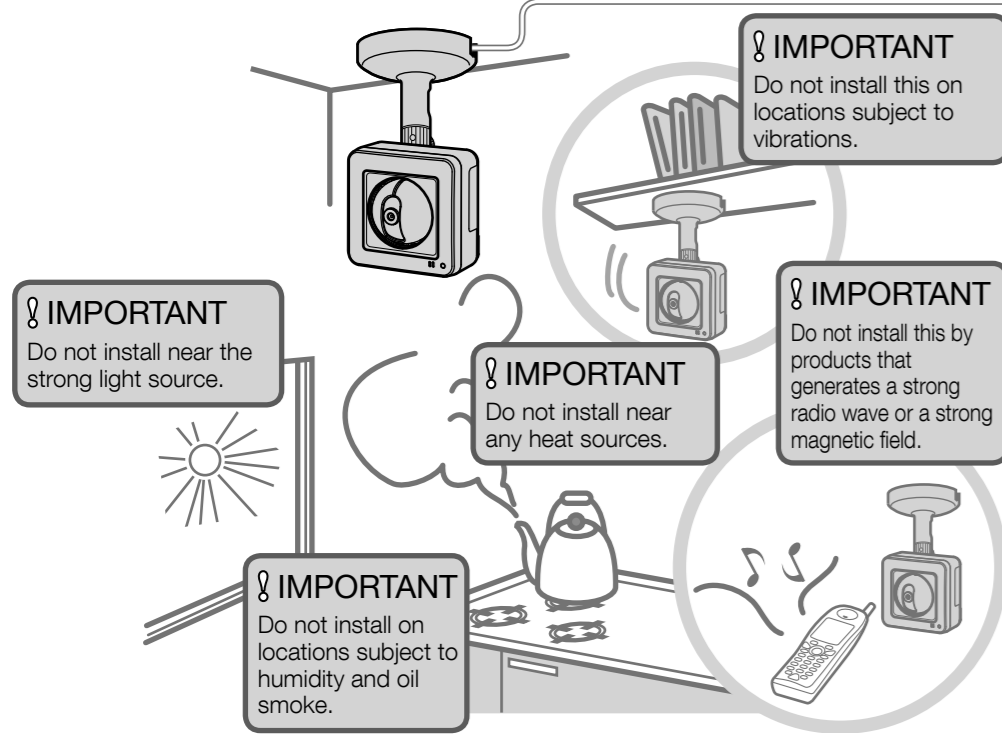




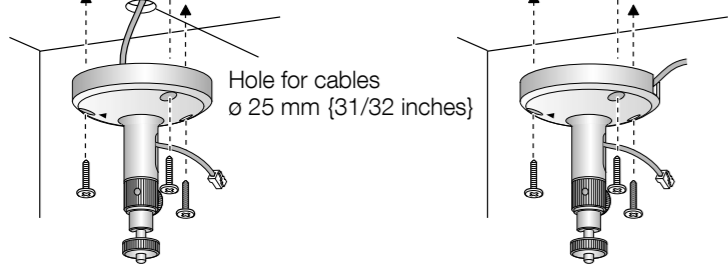
## 1 Check the installing place

### Determining the mounting position

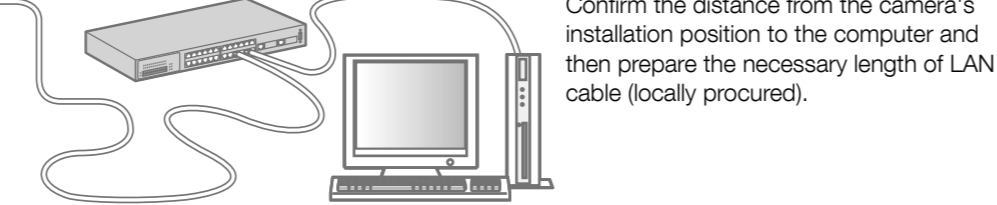


### Determining how to wire the cable

It is necessary to make a hole in the ceiling or wall to pass the cables through. Make a hole 25 mm (31/32 inches) in diameter. (screw: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))

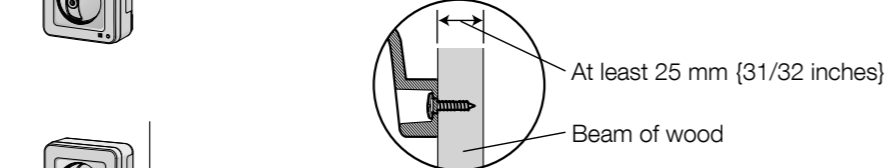


### Determining the length of the cable



### Determining how to mount the camera

**■ Installing the camera on the ceiling or wall**  
Make sure the flexible stand is firmly mounted on a beam of wood (25 mm (31/32 inches) and greater) etc. When there is no beam, apply a board on the other side of the ceiling or wall to make sure the camera does not drop. (screw: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))



#### When mounting on a concrete surface

Prepare anchors for 4 mm (5/32 inches) diameter screws for mounting. Mortar ceilings or walls break easily when drilling. Be careful of pieces of mortar which may become loose and fall.

- Place the flexible stand on the ceiling or wall where you plan to mount the flexible stand and mark the points where you are going to make holes.
- Make holes with an electric drill. Insert anchors (locally procured) into the holes and push them inside the holes with a hammer.
- Mount the flexible stand using the screws.  
(Drill for concrete in case of tile, use a drill for tile)

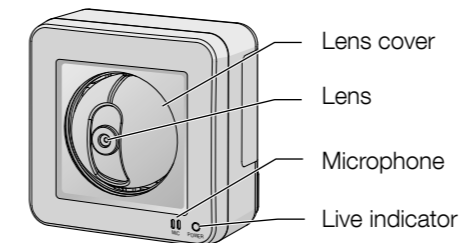
#### ■ Tripod Mount

It is also possible to mount the camera on a standard tripod stand (locally procured).

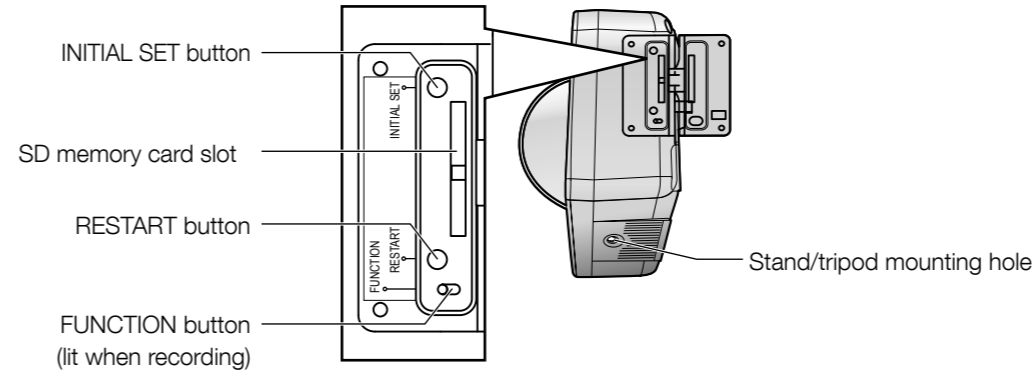


## 2 Major operating controls

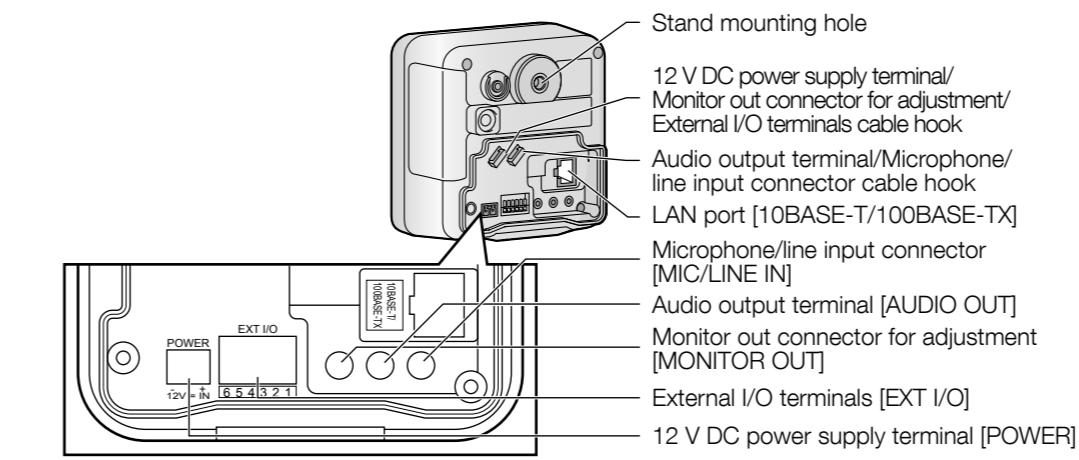
### <Front view>



### <Side and bottom view>



### <Rear view>



### External I/O terminals

Pin	Function
6	DC power output • Power output voltage 10.5 V - 13 V • Power output current 100 mA
5	GND
4	GND
3	EXT I/O terminal 3 (ALARM IN 3/ AUX OUT)
2	EXT I/O terminal 2 (ALARM IN 2/ ALARM OUT)
1	EXT I/O terminal 1 (ALARM IN 1)

#### About the [INITIAL SET] button

After turning off the power of the camera, turn on the power of the camera while holding down this button, and wait for around 5 seconds or more without releasing this button. Wait around 3 minutes after releasing the button. The camera will start up and the settings including the network settings will be initialized. Before initializing the settings, it is recommended to write down the settings in advance. The initialization will be complete when the live indicator stops blinking orange and lights off. Note that the preset position settings and the CRT key (SSL encryption key) used for the HTTPS protocol will not be initialized.

#### IMPORTANT

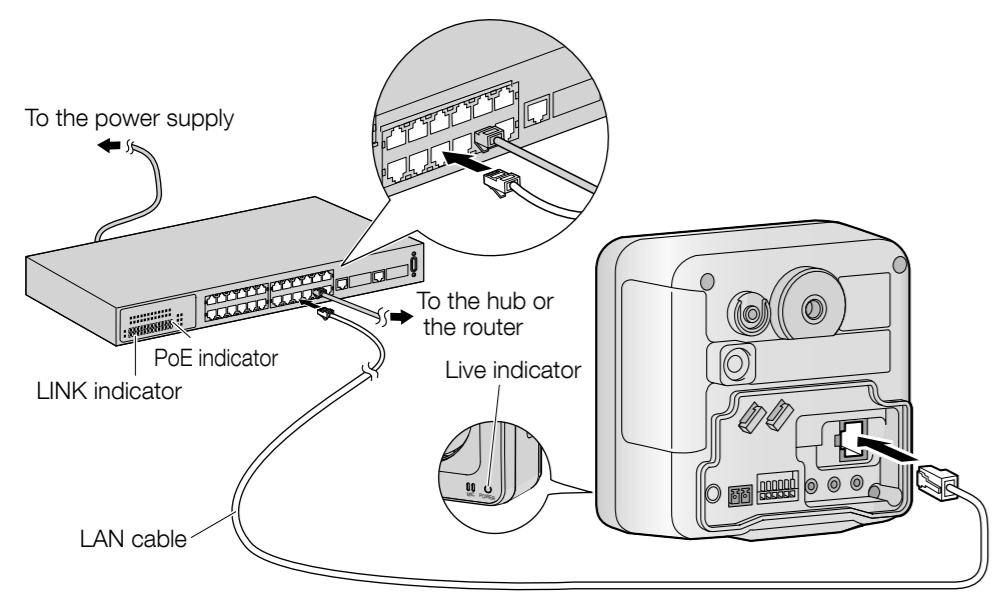
- Do not turn off the power of the camera during the process of initialization. Otherwise, it may fail to initialize and may cause malfunction.

#### About the [RESTART] button

When the camera is on, you can also restart the camera by pressing the RESTART button. Press and hold the RESTART button for about one second with a pointed object. Restarting is completed when the camera's pan/tilt performs its initial movement.

## 3 Connections

### When connecting the camera using PoE (Power over Ethernet)



#### Note

- If the live indicator does not turn green, see "Troubleshooting" in the Operating Instructions on the provided CD-ROM.
- Refer to the operating instructions of the product in use about the operations of the PoE device.

#### IMPORTANT

- Use a 4-pair UTP/STP cable.
- Make sure that the PoE device in use is compliant with IEEE802.3af standard.
- For information on recommended PoE devices, refer to our website at (<http://panasonic.net/ps/security/support/info.html>).

### When connecting the camera using 12 V DC power supply

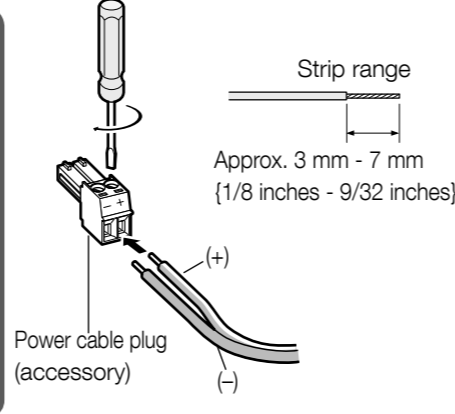
#### Caution:

- ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER SOURCE (IEC/EN/UL/CSA 60950-1).

- Loosen the screw of the power cord plug (accessory).
- Connect the cable of the 12 V DC power supply to the power cord plug. Strip 3 mm to 7 mm (1/8 inches to 9/32 inches) from the end of the wire, and twist the stripped part of the wire sufficiently to avoid short circuit. Specification of cable (wire): 16 AWG - 24 AWG, Single core, twisted
- Check whether the stripped part of the wire is not exposed and is securely connected.
- Tighten the screw of the power cord plug. (Recommended tightening torque: 0.34 N·m (0.25 lbf·ft))
- Connect the power cord plug to the 12 V DC power supply terminal on the rear of the camera.

#### IMPORTANT

- Be sure to use the power cord plug provided with this product.
- When connecting the cable of the 12 V DC power supply to the power cable plug, make sure to use the correct polarity. Using incorrect polarity may cause issues such as damage to the camera or malfunction.
- Be sure to fully insert the power cord plug into the 12 V DC power supply terminal. Otherwise, it may damage the camera or cause malfunction.

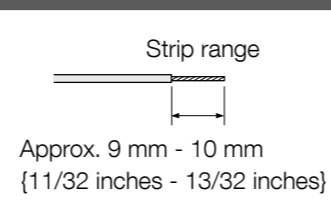


#### External I/O terminals

Connect external devices to the EXT I/O terminal.

When connecting an external device, remove 9 mm - 10 mm (11/32 inches - 13/32 inches) of the outer jacket of the cable and twist the cable core to prevent the short circuit first.

- Specification of cable (wire): 22 AWG - 28 AWG  
Single core, twisted



#### IMPORTANT

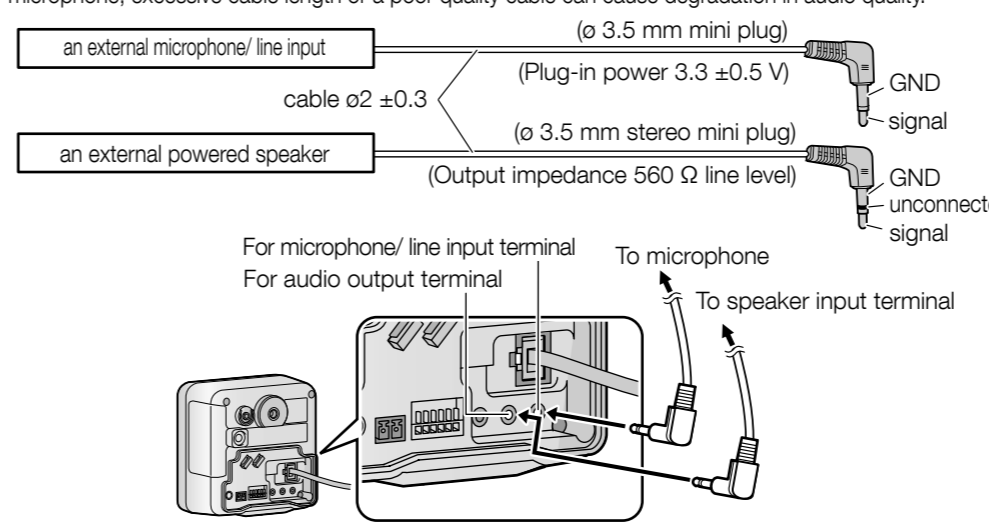
- Do not connect 2 wires or more directly to a terminal. When it is necessary to connect 2 or more wires, use a splitter.
- Input and output of the external I/O terminal 2 and 3 can be switched by configuring the setting. The default of EXT I/O terminal 2 is "ALARM IN 2" and of EXT I/O terminal 3 is "ALARM IN 3". It is possible to determine whether or not to receive input from EXT I/O terminal 2 and 3 (ALARM IN 2, 3) by selecting "Off", "Alarm input", "Alarm output" or "AUX output" for "Terminal alarm 2" or "Terminal alarm 3" on the "Alarm setup" page. Refer to the Operating Instructions (included in the CD-ROM) for further information.
- The default of EXT I/O terminals is "Off". When "Off" is selected, it is possible to connect external devices as well as the input setting.
- When using the EXT I/O terminals as the output terminals, ensure they do not cause signal collision with external signals.
- In order for the EXT I/O terminal to detect alarm inputs when the terminal status is changed from Open to Close (On) or from Close to Open (Off), about 100 ms or more is needed. Because alarms cannot be detected for about 5 seconds after a detection is made, alarm inputs received within about 5 seconds after an alarm is detected are not detected.

#### <Ratings>

- ALARM IN 1, ALARM IN 2, ALARM IN 3  
Input specification : No-voltage make contact input (4 V - 5 V DC, internally pulled up)  
Off : Open or 4 V - 5 V DC  
On : Make contact with GND (required drive current: 1 mA or more)
- ALARM OUT, AUX OUT  
Output specification : Open collector output (maximum applied voltage: 20 V DC)  
Open : 4 V - 5 V DC by internal pull-up  
Close : Output voltage 1 V DC or less (maximum drive current: 50 mA)

#### Microphone/line input connector · Audio output terminal

You can connect an external microphone and external speaker to the camera to use the Listen and Talk features, respectively. The microphone cable should be no longer than 7 m (23 feet). If you use an external microphone, excessive cable length or a poor quality cable can cause degradation in audio quality.



### Remove a SD memory card

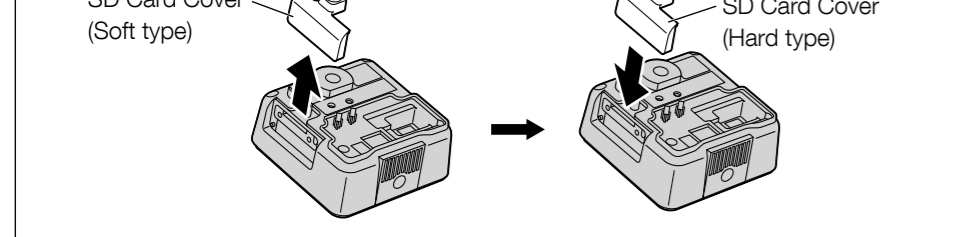
- Close the slide cover on the side of the camera.
- Press the FUNCTION button.  
When the FUNCTION button is pressed, recording stops and the green light turns off. Confirm that the FUNCTION button green light has turned off before proceeding to step 3.
- Push the card slightly to eject it, then remove the card.
- Close the cover.

#### Note

To suit the area in which you will install the camera, you can attach the provided SD Card Cover (Hard type), in order to help prevent SD card theft.

- Not all forms of theft can be prevented.

(Recommended tightening torque: 0.6 N·m (0.44 lbf·ft))



#### IMPORTANT

- Make sure that SD memory card recording has stopped and that the card is not being accessed before removing the card. (The FUNCTION button will light while images are being recorded to the card.) We recommend pressing the FUNCTION button to stop SD memory card recording before ejecting the card.
- If the SD memory card is removed while it is being recorded to or accessed, the card may become unreadable and may need to be formatted (i.e., erased) again before use.

## 4 Configure the settings of the camera

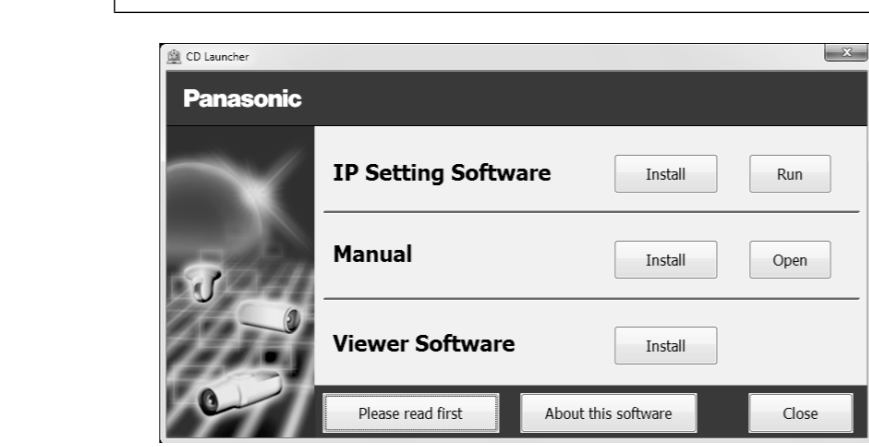
### Configuring the camera so that it can be accessed from a PC

If you are using firewall software on your PC, the Setup Program may not be able to find any cameras on your network. Configure the setting of the camera after temporarily invalidating the firewall software.

- 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

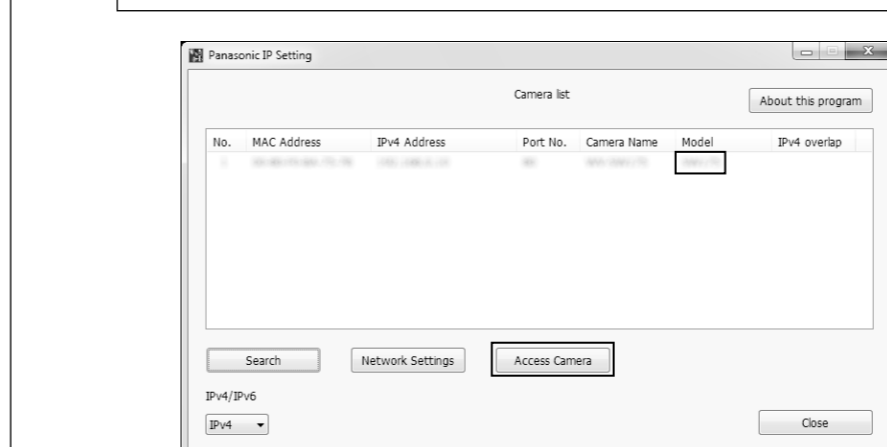
- Refer to "Using the CD-ROM" in the Operating Instructions on the provided CD-ROM for further information about CDLauncher.



- Click the [Run] button next to [IP Setting Software]  
"Panasonic IP Setting Software" page will be displayed. Click the [Network Settings] button after selecting the MAC address/IP address of the camera to be configured.
- Select the camera you want to configure, and click [Access Camera].

#### Note

- When cameras are displayed in [IP Setting Software] screen, click the camera with same MAC address as the MAC address printed on the camera that you want to configure.



- It is necessary to install the viewer software "Network Camera View 4S" to display images. Follow the instructions of the wizard to start the installation.

- The "Live" page will be displayed.
- Perform the [Time & date] settings in the "Setup" - "Basic" page before using the camera.



#### Note

- When no image is displayed on the "Live" page, refer to "Troubleshooting" in the Operating Instructions on the provided CD-ROM.
- It is possible to enhance the network security by encrypting the access to cameras using the HTTPS function. Refer to "Access the camera using the HTTPS protocol" in the Operating Instructions on the provided CD-ROM.
- Click the [Setup] button on the "Live" page, the user authentication window will be displayed. Enter the default user name and password as follows, and log in.  
User name: admin  
Password: 12345

## 5 Mounting the Camera

Adjust the camera to a suitable position/direction while confirming the images actually displayed on the computer screen.

### Wiring without making a hole for a cable in the ceiling or wall

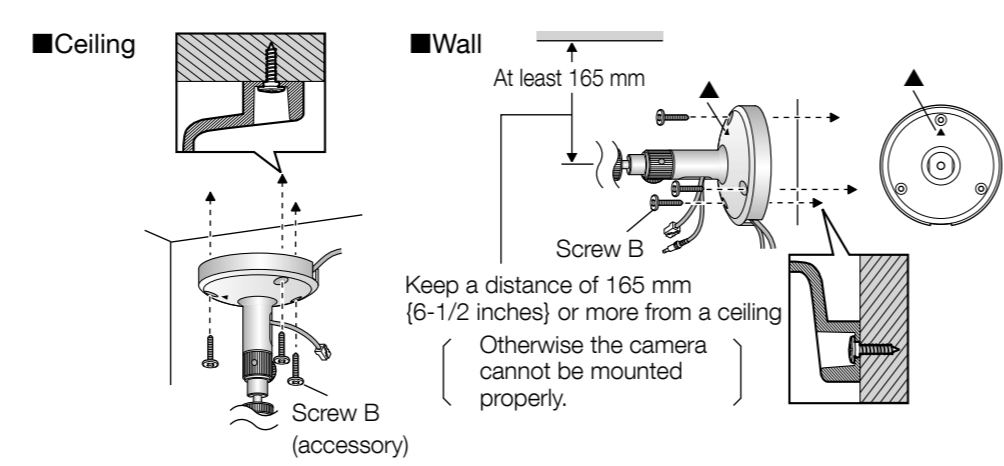
- Place the flexible stand (accessory) on the ceiling or wall, and determine the mounting position of the stand.  
Make sure the flexible stand is firmly mounted on a beam of wood (25 mm (31/32 inches) and greater) etc. When there is no beam, apply a board on the other side of the ceiling or wall to make sure the camera does not drop. (screw: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))
- Secure the safety wire (accessory) to the camera using screw A (accessory) and washer S (accessory). (Recommended tightening torque: 0.6 N·m (0.44 lbf·ft))
- Remove the tab on the flexible stand.
- Pass the cables through the notch.  
When there are many cables to pass through the notch, pass through the larger cables first.

#### IMPORTANT

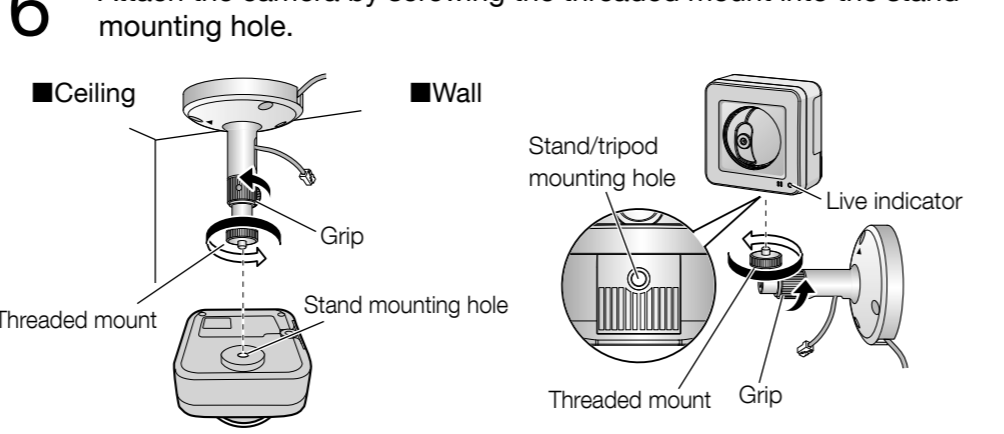
If the cables cannot be passed through the notch, wrap the cables to the stand shaft using tape (locally procured) or other materials.

### 5 Mount the flexible stand firmly to the ceiling or wall with screw B (accessory).

When mounting the flexible stand to the wall, position the flexible stand so that the "▲" marker is facing upward. (screw B: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))



### 6 Attach the camera by screwing the threaded mount into the stand mounting hole.

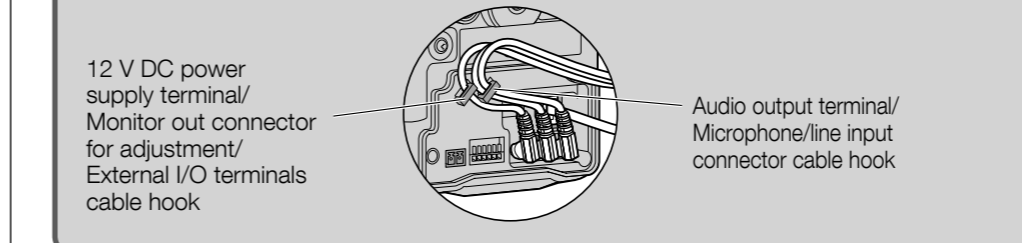


\* It is possible to attach the stand to the stand mounting hole, the rear of the camera.

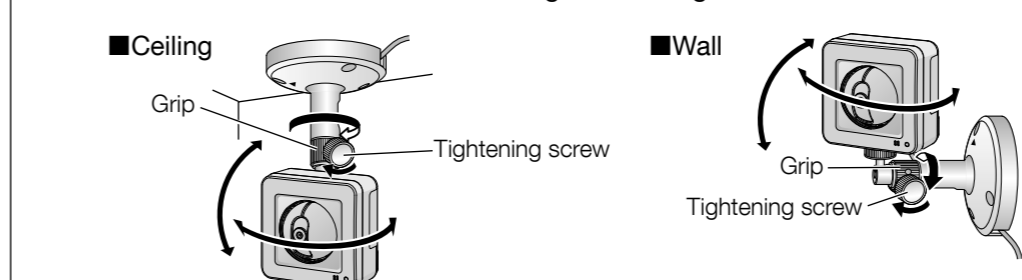
- Pass the cables through the connector cover, and then connect all necessary cables (AC adaptor, LAN, audio/video, etc.). Refer to "Connections".

#### IMPORTANT

When installing the camera, hook the cord of the AC adaptor (locally procured) and the cables for the external speaker/external sensor/mic/video, etc. around the hooks when making connections.

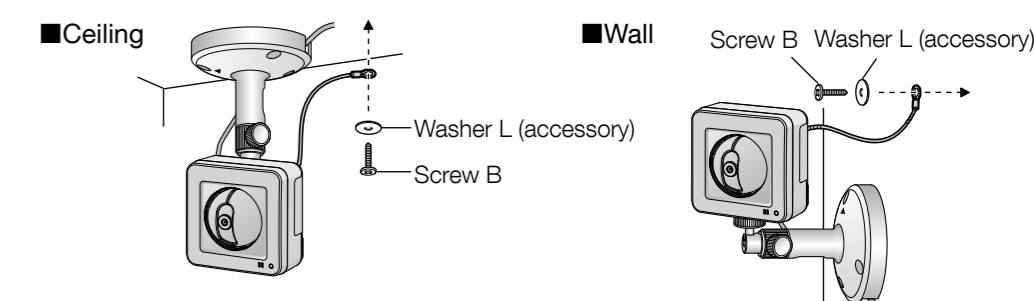


- Adjust the camera position and tighten the flexible stand grip and the tightening screw firmly.  
The fixing position of the tightening screw can be adjusted according to the direction the camera is facing and its angle.



- Adjust the length of the safety wire when it is taut, and secure it to the ceiling or wall using screw B (accessory) and washer L (accessory).

Attach the safety wire in a position so that if the camera were to become detached, it would not fall on nearby people. (screw B: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))



### Wiring through a hole made in the ceiling or wall

Make a hole for cables in the ceiling or wall. Secure the safety wire to the camera and pass the cables through the notch. Then follow steps 2, 4 to 9. (It is not necessary to remove the tab on the flexible stand. (screw B: Minimum pull-out strength (per 1 pc.) 196 N (44.06 lbf))

