

# Panasonic

## Installation Guide

### Network Camera Indoor Use Only

Please read this document before using the product, and save this document for future reference. **Panasonic Network Camera Website:**  
<http://panasonic.net/pcc/products/netwcam/>

Model No. **BL-C101** (Wired Type)  
**BL-C121** (Wireless/Wired Type)

This manual is written for both the BL-C101 (Wired Type) and BL-C121 (Wireless/Wired Type). Available features and operations vary slightly depending on the model. You can confirm the model no. of your camera by checking the model no. printed on the front of the camera. Model number suffixes ("A", "CE", and "E") are omitted from the following model numbers shown in this document, unless necessary. BL-C101A, BL-C101CE, BL-C101E, BL-C121A, BL-C121CE, BL-C121E

Please read the included Important Information before proceeding.

**Complete Operating Instructions and all other documentation can be found on the included CD-ROM.**

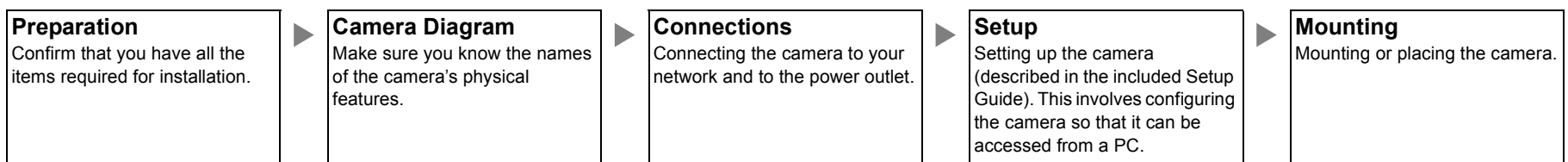
- This document (Installation Guide) explains how to physically connect the camera to the power supply and network, as well how to mount or place the camera for regular use.
- The **Setup Guide** describes how to set up the camera so that it can be accessed using a PC.
- Refer to the **Operating Instructions** on the **CD-ROM** for details regarding the camera's features.
- Refer to the **Troubleshooting Guide** on the **CD-ROM** if you have any problems configuring or using the camera.

### Abbreviations

- UPnP is the abbreviation for "Universal Plug and Play".
- The Network Camera is referred to as "the camera" in this document.
- The Setup CD-ROM is referred to as "the CD-ROM" in this document.

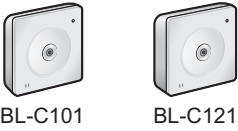


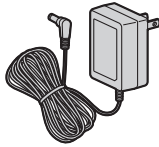


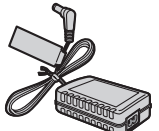

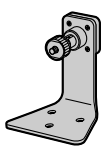


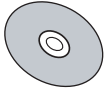
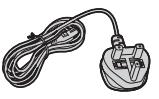

### Installation Procedure Overview

The following is an overview of the steps required to install and setup the camera. All steps are explained in this document unless otherwise noted.



### Preparation

1. Confirm the following items are included in the camera's packaging.

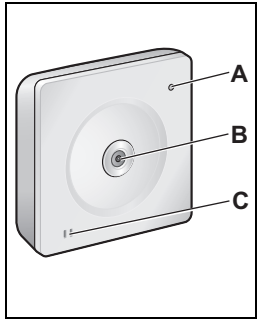
 <p><b>Main Unit (1 pc.)</b>          The appearance of your camera depends on which model you have purchased.</p>	 <p><b>Screw A BL-C101 (6 pcs.)/BL-C121 (4 pcs.)</b>  <b>Order No. XTB4+20AFJ</b>          Used for wall mounting the camera.</p>	 <p><b>Washer S (1 pc.)</b>  <b>Order No. XWG26D12VW</b>          Used when securing the safety wire to the camera.</p>
 <p><b>AC Adaptor (1 pc.)</b>  <b>Order No. PQLV206Y</b>  <b>Cord Length: About 3 m (9 feet 10 inches)</b>          BL-C101A/BL-C121A</p>	 <p><b>Screw B (1 pc.)</b>  <b>Order No. XTB26+10GFJ</b>          Used for securing the safety wire to the camera.</p>	 <p><b>Washer L (1 pc.)</b>  <b>Order No. XWG4F16VW</b>          Used when securing the safety wire to the wall.</p>
 <p><b>Order No. PQLV216CE1Z</b>  <b>Cord Length: About 3 m (9 feet 10 inches)</b>          BL-C101CE/BL-C101E/BL-C121CE/BL-C121E</p>	 <p><b>Safety Wire (1 pc.)</b>  <b>Order No. PQME10080Z</b>          Used to secure the camera when wall mounting it.</p>	 <p><b>Flexible Stand (1 pc.)</b>  <b>Order No. PNKL1008Z</b>          Used to attach the camera to the wall.</p>
 <p><b>AC Cord (1pc. for BL-C101CE/BL-C101E/BL-C121CE/BL-C121E)</b>  <b>Order No. PFJA02A006Z</b>  <b>Cord Length: About 1.8 m (5 feet 11 inches)</b>          BL-C101CE/BL-C121CE</p>	 <p><b>Important Information (1 pc.)</b>  <b>Installation Guide (this document) (1 pc.)</b>  <b>Setup Guide (1 pc.)</b></p>	 <p><b>Setup CD-ROM (1 pc.)</b>  <b>Order No. PQQX15704MCD</b>          Contains the Setup Program needed to configure the camera, as well as the camera's documentation.*  <small>*See the included Important Information for a description of each document.</small></p>
 <p><b>Order No. PSJA1106Z</b>  <b>Cord Length: About 1.8 m (5 feet 11 inches)</b>          BL-C101E/BL-C121E</p>	<b>BL-C101 Only</b>  <p><b>Power Transfer Unit (1 pc.)</b>  <b>Order No. PNWP3C160A</b>          Used to power the camera.</p>	

2. You will need the following additional items to install and configure the camera.
- a PC (see the system requirements in the Important Information document)
  - **For BL-C101:** 2 LAN cables (CAT-5 straight cable)
  - **For BL-C121:** a LAN cable (CAT-5 straight cable)
  - a router

# Camera Diagrams

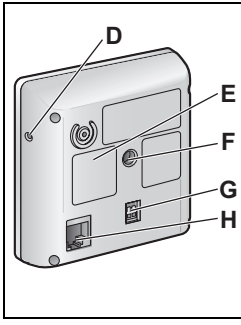
## BL-C101

### Front View



- A Indicator\*1
- B Lens
- C Microphone

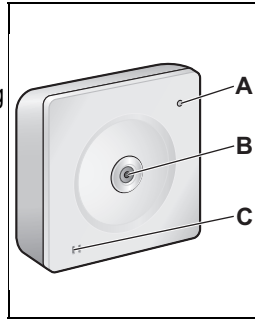
### Rear View



- D FACTORY DEFAULT RESET button
- E Serial number label
- F Stand/Tripod Mounting Hole
- G External INPUT interface
- H DATA/POWER IN

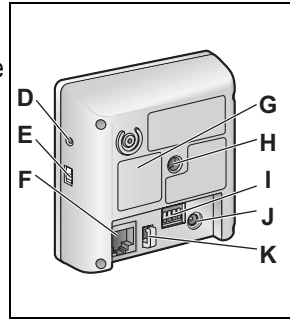
## BL-C121

### Front View



- A Indicator\*1
- B Lens
- C Microphone

### Rear View



- D FACTORY DEFAULT RESET button
- E WIRELESS/WIRED switch
- F LAN port
- G Serial number label
- H Stand/Tripod Mounting Hole
- I External I/O interface
- J DC IN jack
- K Hook for AC adaptor cord

\*1 See 1.1 Understanding the Camera Indicator in the Troubleshooting Guide on the CD-ROM for indicator meaning.

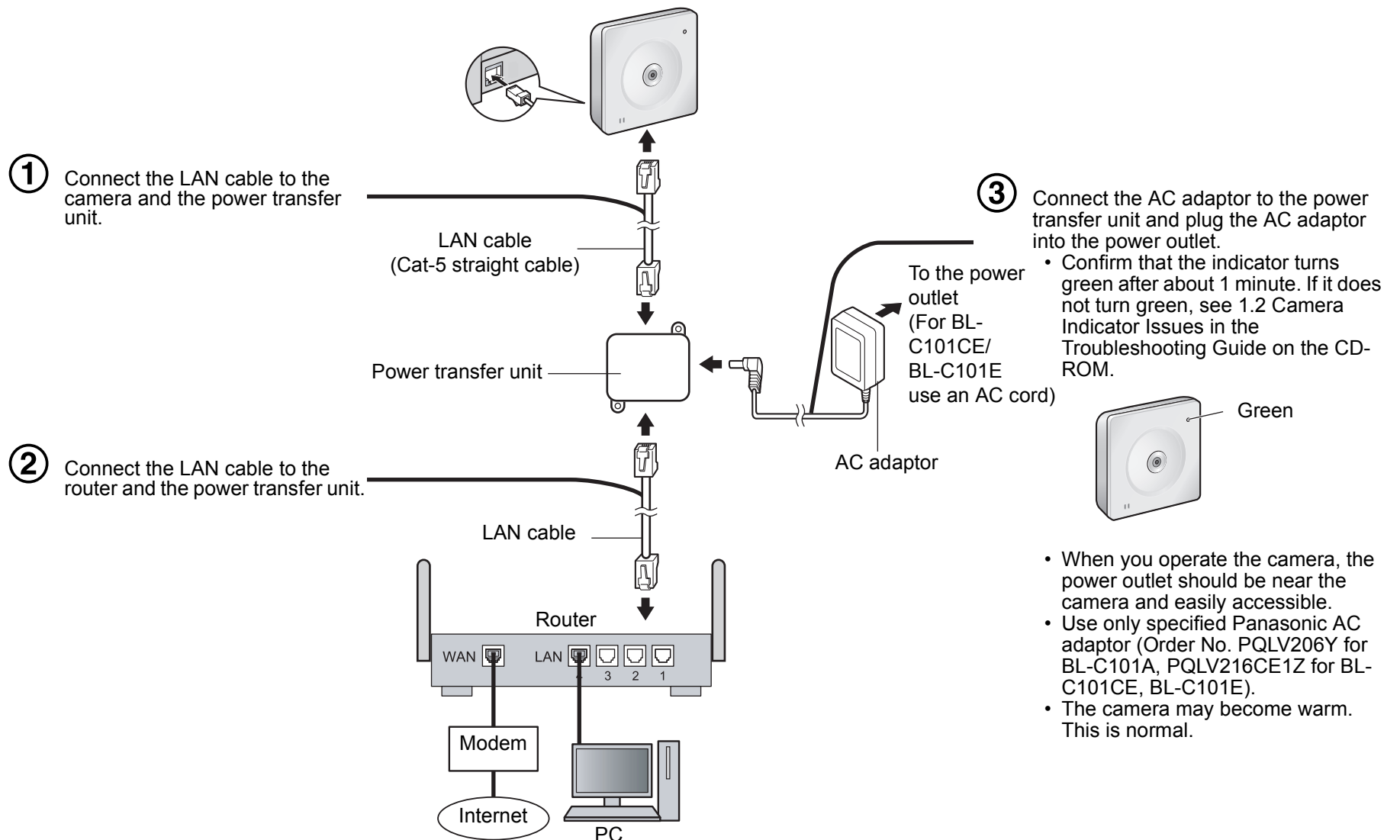
## Connections

Connect the camera to your router and to the power outlet as described below.

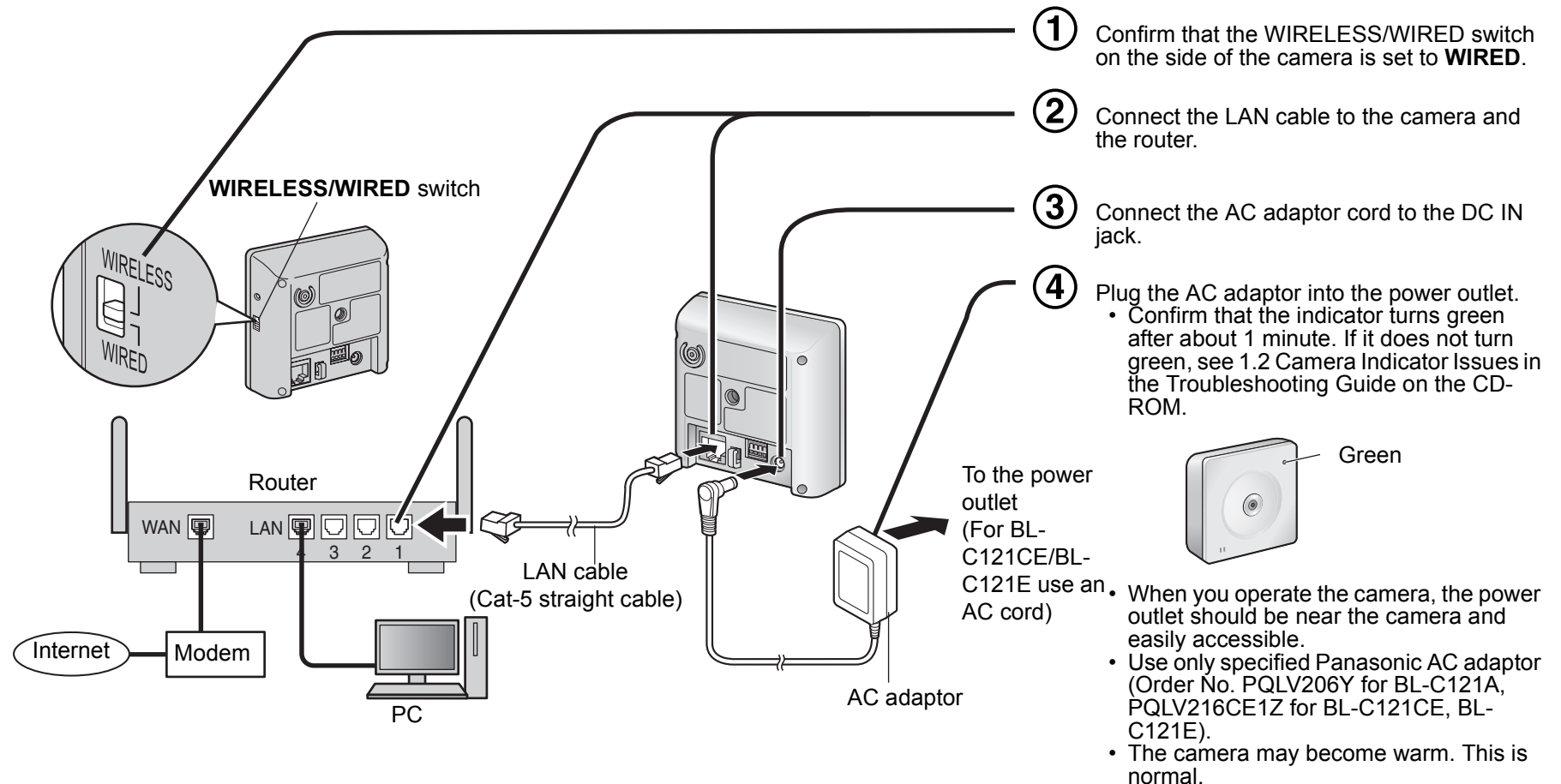
- Before proceeding, confirm that your PC is connected to your router and can access the Internet. Also confirm that your router's UPnP™ feature is enabled. (Most routers have UPnP™ turned off by default.) Refer to the operating instructions included with your router or to the Panasonic Network Camera website (<http://panasonic.net/pcc/support/netwkcaml/>) for more information.

### BL-C101

- Use a LAN cable that is no more than 30 m (98 feet 5 inches) long to connect the camera and the power transfer unit.



### BL-C121



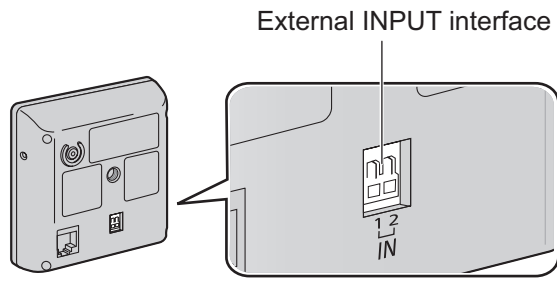
**After the camera's indicator turns green, you may set up the camera. Continue by following the procedure described in the included Setup Guide.**

- If the indicator does not turn green, see 1.2 Camera Indicator Issues in the Troubleshooting Guide on the included CD-ROM.

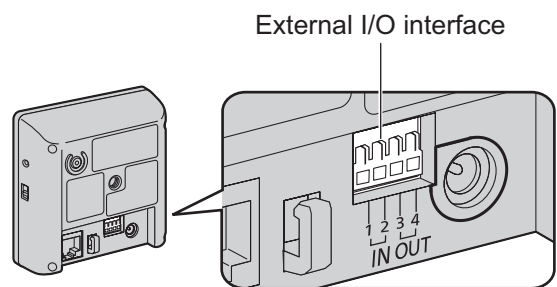
## Connecting External I/O interface

The camera's external I/O interface allows you to connect a device, such as a sensor or motion detector, that can be used to trigger the camera's image buffering and transferring features (see Section 2 Using Triggers to Buffer and Transfer Images in the Operating Instructions on the CD-ROM), as well as the detection notification sound feature (see Section 1.2.7 Detection Notification Sound in the Operating Instructions on the CD-ROM).

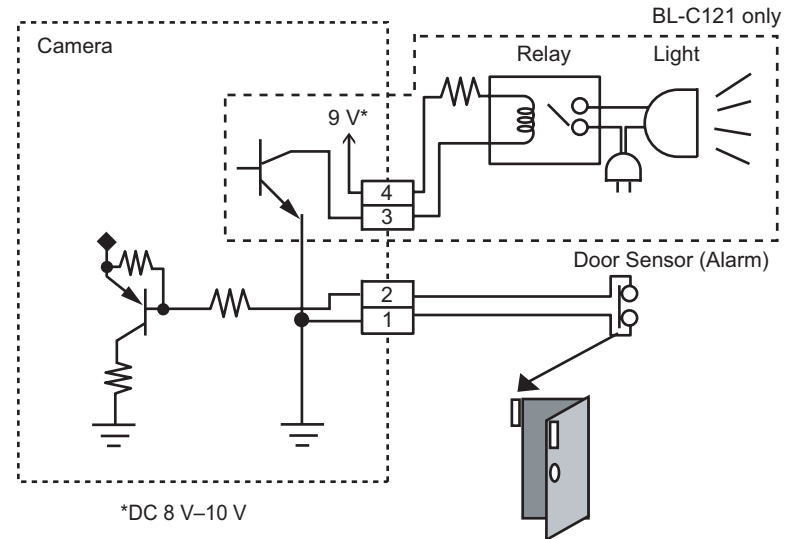
### BL-C101



### BL-C121



### Circuit Diagram Example



### Caution

- The external I/O interface is not capable of connecting directly to devices that require large amounts of current. In some cases, a custom interface circuit (customer-provided) may have to be used. Serious damage to the camera may result if a device that exceeds its electrical capability is connected to the external I/O interface.
- Low voltage/current circuits and high voltage/current circuits are used in the camera circuit. All wiring should be performed by a qualified electrician. Incorrect wiring could damage the camera and cause a fatal electric shock.
- External devices connected to the camera's output terminals cannot be controlled in the event of a network error or failure. Keep this in mind when connecting door locks, heat-emitting devices, or other devices that may be dangerous if they cannot be controlled. (BL-C121 only)

Terminal	Description
IN	1 GND terminal.
	2 External sensor input. The camera can be triggered by either an open circuit or a GND short-circuit.
OUT BL-C121 only	3 External device control output. Allows you to control an external device using the output buttons in the camera's operation bar (for example, turning a light on or off). <ul style="list-style-type: none"> <li>• This terminal's behavior can be changed (see 7.4 Controlling the External Output Terminal (BL-C121 Only) in the Operating Instructions on the CD-ROM).</li> <li>• This terminal is an open collector circuit. The maximum drawing current is the same as terminal 4. Do not exceed the voltage of terminal 4.</li> </ul>
	4 DC power output terminal. <ul style="list-style-type: none"> <li>• DC 8 V-10 V</li> <li>• Maximum load is 100 mA.</li> </ul>

### Note

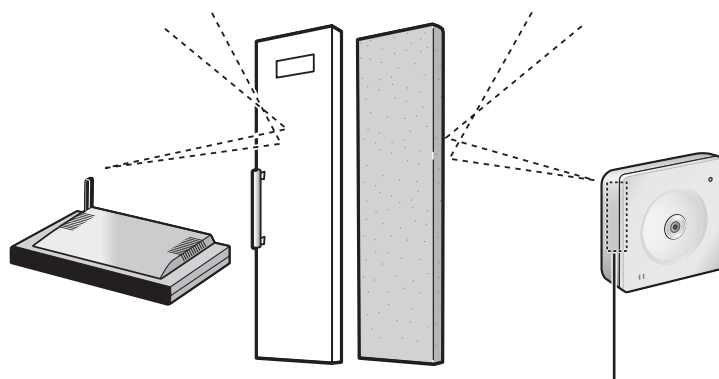
- If excessive force is used when disconnecting wires with pointed objects from the external I/O interface, terminals may become damaged or the interface may be pushed inside the camera body and become unusable.

## For BL-C121: Notes About Wireless Communication

The radio wave range may decrease depending on the surrounding environment or existence of obstacles. If obstacles such as the following are placed between a camera and a router, radio waves will weaken. Therefore, even if the distance between the camera and router is short, the frame rate may decrease or images may not be displayed.

- A metallic door or shutter
- A wall with an insulation material that contains aluminum foil
- A wall made of tin
- A wall made of concrete, stone or brick
- Fireproof glass
- Several walls separated by open space
- A steel shelf

In the example below, wireless communication between the camera and the wireless router is impaired due to steel doors or reinforced concrete walls between the camera and the wireless router.



Wireless antenna is built in the camera. Position the camera away from obstacles such as steel doors or reinforced concrete walls.



## Mounting the Camera

- The camera illustrations in this document depict the BL-C121.

### Caution

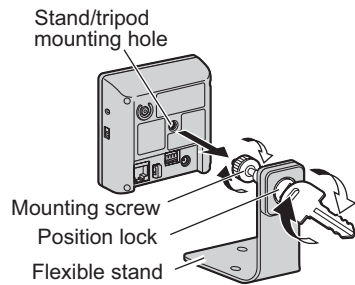
- Do not drive the screws into a soft material. Drive the screws into a secure area of the wall, such as a wall stud, otherwise the camera may fall and be damaged.
- Make sure you attach the safety wire when mounting the camera, to prevent the camera from falling.

### Note

- Use screws that are appropriate for the material of the wall.
- The included screws are for use with wooden walls only.
- The camera is intended for indoor use only and should not be mounted outdoors.
- To ensure that camera images are displayed properly, do not mount the camera on an incline. Mount the camera so that it is perpendicular to the floor. Do not mount the camera upside down.

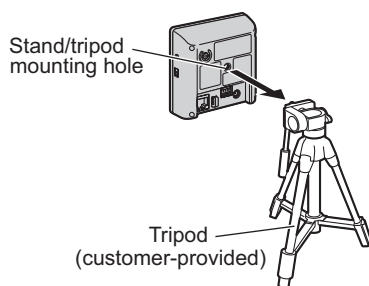
### Flexible Stand Mount

- Loosen the position lock located on the rear side of the flexible stand.
- Turn the mounting screw to attach the camera.
- Adjust the angle, then fasten the position lock.



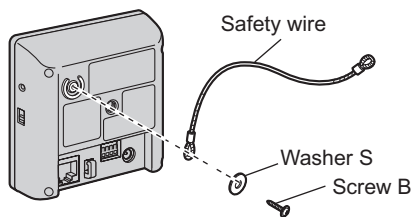
### Tripod Mount

- Do not use a tripod screw with a thread of 6 mm (1/4 inch) or more. This may damage the stand/tripod mounting hole.
- The camera cannot be mounted depending on the shape of the camera platform.

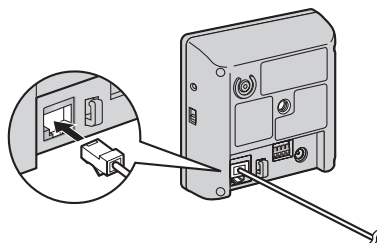


### Ceiling/Wall Mount

- Secure the safety wire to the camera using screw B (included) and washer S (included).
  - Make sure you attach the safety wire when mounting the camera, to prevent the camera from falling.



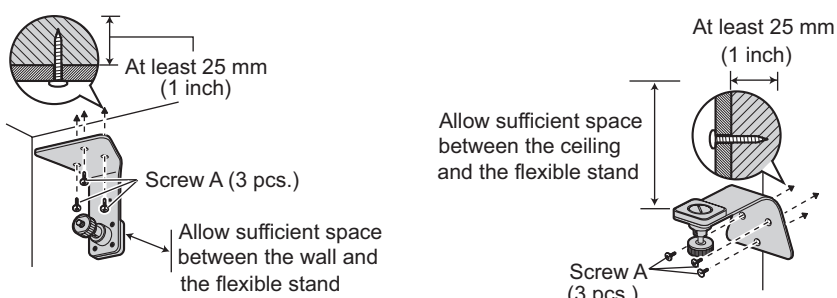
- Connect a LAN cable to the camera.
  - Insert the LAN cable until it clicks into place.



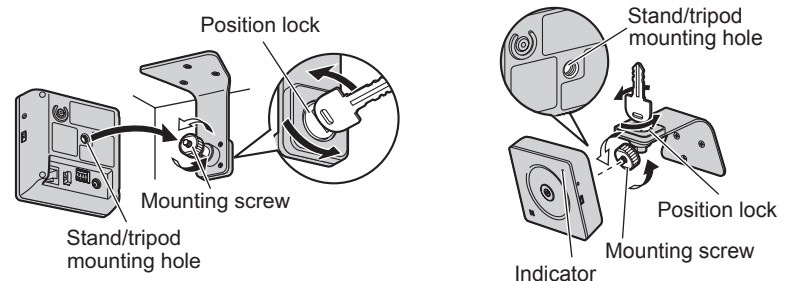
- Mount the flexible stand firmly to the ceiling or wall with screw A (included).
  - Do not drive the screws into a soft material. Drive the screws into a secure area of the wall, such as a wall stud, otherwise the camera may fall and be damaged.
  - Use screws that are suited for the type of material the camera is mounted to.
  - Allow sufficient space between the ceiling or wall and the flexible stand to turn the position lock.
  - Make sure the flexible stand is firmly mounted on a wall or ceiling stud (25 mm [1 inch] and greater) etc. When there is no stud, apply a board on the other side of the ceiling or wall to make sure the camera does not drop.

#### ■ Ceiling

#### ■ Wall



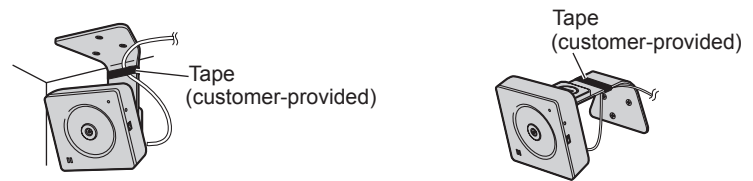
- Loosen the position lock located on the rear side of the flexible stand, and turn the mounting screw to attach the camera.
  - Ceiling
  - Wall



- Adjust the camera position and tighten the position lock.
  - Ceiling
  - Wall



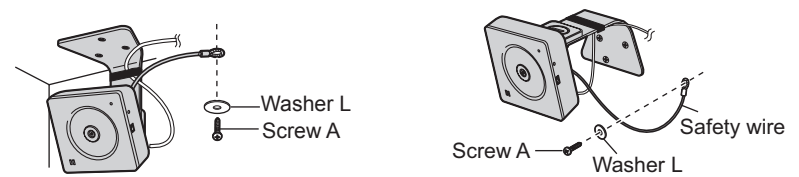
- Connect all necessary cables (AC adaptor, LAN, etc.) to the camera, dress the cables neatly, and secure with tape (customer-provided).
  - Ceiling
  - Wall



- Secure the safety wire to the ceiling or wall using screw A (included) and washer L (included).
  - Leave some slack in the safety wire, as shown.
  - Make sure the safety wire is firmly mounted on a wall or ceiling stud (25 mm [1 inch] and greater) etc. When there is no stud, apply a board on the other side of the ceiling or wall to make sure the camera does not drop.

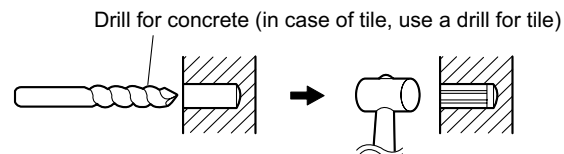
#### ■ Ceiling

#### ■ Wall



### When mounting on a mortar or concrete surface

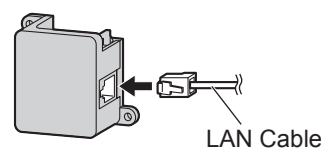
- Prepare anchors for 4 mm (3/16 inch) diameter screws for mounting.
- Place the flexible stand on the ceiling or wall where you plan to mount the flexible stand and mark the points where you are going to make holes.
  - Make holes with an electric drill. Insert anchors (customer-provided) into the holes and use a hammer to make them flush with the wall.
    - Mortar ceilings or walls break easily when drilling. Be careful of pieces of mortar which may become loose and fall.



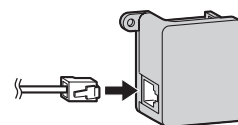
- Mount the flexible stand using the screws.

### For BL-C101 Only: Connecting to the power transfer unit

- Connect a LAN cable to the power transfer unit and to the switching hub, router, etc.
  - The power transfer unit can be fixed in place with 2 pieces from screw A (included) (4 mm x 20 mm [3/16 inch x 13/16 inch]).



- Connect a LAN cable from the camera to the power transfer unit.



- Connect the AC adaptor to the power transfer unit and plug the other end into the power outlet.
  - The camera will activate.

