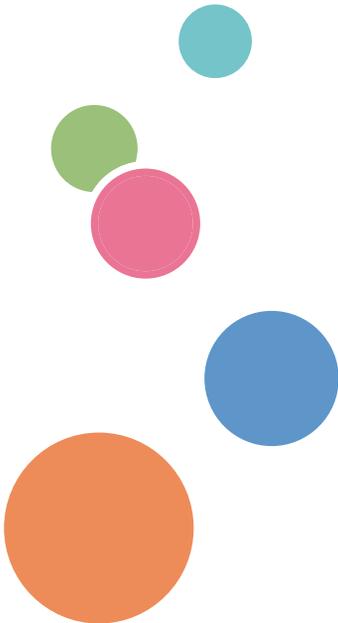




## Device Reference

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Operating the Machine	2
Packing Up the Machine	3
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# How to Read This Manual

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## Symbols

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This manual uses the following symbols:

### Important

Indicates points to pay attention to when using the machine, and explanations of likely causes of damage to machine or loss of data. Be sure to read these explanations.

### Note

Indicates supplementary explanations of the machine's features, and instructions on resolving user errors.

[ ]

Indicates the names of keys on the display or control panel.

### Note

- Some of the key names that appear in the on-screen instructions or messages might differ from those shown on the machine, depending on the region in which you live. The screen displays a key name, followed by the corresponding key mark. If the name of the key is different, use the corresponding mark to identify the key.

---

## About This Product

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In this document, the Unified Communication System services as a whole are collectively referred to as "this product". For details, see "Overview of the Unified Communication System", Features Reference.

---

## About This Machine

---

In this document, the Unified Communication System P1000 is referred to as "this machine".

---

# Manuals for This Machine

Read this manual carefully before you use this machine.

Refer to the manuals that are relevant to what you want to do with the machine.

## **Read This First**

Before using the machine, be sure to read this manual entitled Safety Information. It also describes each regulation.

## **Quick Guide**

Explains how to start a meeting.

## **Device Reference (This Manual)**

Explains how to set up and operate the machine.

This manual also describes the specifications of the machine and provides information about how to troubleshoot problems that occur. It also describes how to set up this product when using it for the first time.

## **Features Reference**

Explains how to start a meeting and describes the features of the machine.

This manual also provides information about how to troubleshoot feature and network problems that occur.

---

# Introduction

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## Disclaimer

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Contents of this manual are subject to change without prior notice.

In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

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## Notes

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The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

Some illustrations in this manual might be slightly different from the machine.

---

# Precautions for Use

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## Handling This Product

---

Observe the following points when moving the machine:

- Turn off the machine and remove the AC adapter from the AC outlet.
- Remove all the connector cables connected to the machine.
- Return the camera unit to the closed position.
- Do not attempt to raise or move this machine by the camera unit.

### When carrying the machine by hand

- Use the bag that comes with the machine.
- When traveling by plane, take this machine onboard as carry-on luggage.

### When Transporting the Machine

This machine contains a large number of glass and precision parts. Observe the following points to prevent the machine from being damaged by excessive shock:

- Wrap the machine in cushioning material to prevent it from being directly exposed to shock.
- Put the machine and its parts in the bag that comes with this machine, and put the bag inside a sturdy cardboard box or the original package that contained this machine when you purchased it. When using the original package, replace the cushioning material with material of the appropriate size.
- Inform the carrier that the machine is a piece of precision equipment.
- For more information about transporting the machine, consult your carrier.

Avoid contact with rubber and plastic materials for an extended period of time. Doing so may lead to discoloration or cause the exterior coating to peel off.

Do not use this machine for an extended period of time. Doing so may lead to failure or shorten the product life.

---

## Cleaning

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- Never use benzene or thinner to clean the machine. Doing so may lead to deformation, discoloring, or cause the exterior coating to peel off.
- Do not use a chemically treated cloth.

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## **Wireless Networking**

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This product features a certified construction. Disassembling or modifying this product without permission may be punishable by law.

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## **Copyright Notice**

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Using this machine to perform any of the following acts, without permission from the copyright holder, for purposes other than personal use may constitute an infringement on the copyright and/or neighboring rights of the commercial video software or cable broadcasting program. These acts include broadcasting or transmitting commercial video software or cable broadcasting programs, modifying videos, such as by freezing, or resizing videos to be displayed in an aspect ratio different from the original. To avoid the risk of possible infringement, we advise you to obtain permission from the copyright holder and take all other measures necessary before performing any of the above-mentioned acts.



# 1. Preparing to Use the Machine

## Preparing to Start Using the Services

To start using the Unified Communication System services with this machine, you must set up this machine to use the services according to the conditions in which the machine was purchased and the environment in which the machine is used. This involves specifying the name of the machine and your password, configuring the network settings, and registering contact.

### Preparing the machine

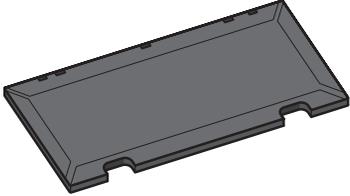
Step		Reference
1	Checking the package contents.	page 11 "Checking the Package Contents"
2	Installing the machine.	page 18 "Place to Install"
3	Attaching the rechargeable battery.	page 25 "Attaching the Rechargeable Battery"
4	Connecting the AC adapter.	page 28 "Connecting the AC Adapter"
5	Connecting cables. (If using a video output device, video input device, or audio input/output device)	page 31 "Connecting Cables"
6	Connecting an Ethernet cable. (If using a wired network)	page 31 "Connecting Cables"
7	Turning on the power.	page 38 "Turning On the Power"
8	Selecting the language and time zone.	page 40 "Turning on the Machine for the First Time"
9	Specifying Wired/Wireless Network Configuration.	"Changing Network Configuration", Features Reference "When the Machine Cannot Connect to the Network", Features Reference
10	Checking the Contact ID from the Contact List screen.	"About Screen", Features Reference

### Preparing Unified Communication System Settings

	Step	Reference
1	Starting your Web browser.	"Logging in to Unified Communication System Settings", Features Reference
2	Changing the default password and machine name.	"Specifying the Name of the Machine and Your Password", Features Reference
3	Registering a contact to Address Book.	"Managing Address Book", Features Reference.

# Checking the Package Contents

The product package contains the following items:

Package Contents	
Unified Communication System P1000 (this machine)	 CZS017
Rechargeable battery	 CZR035
AC adapter	 CZR010

Package Contents

USB cable



CZR034

Bag



CZR036

Accessory bag



CZR043

Power plug

Quick Guide

Read This First

Other documents

**Note**

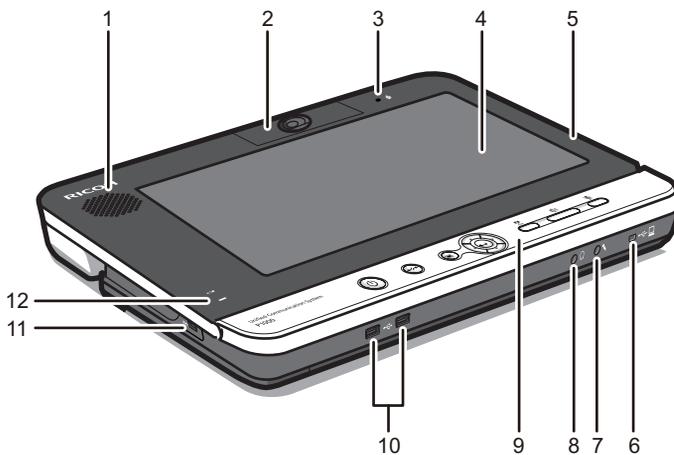
- Use the USB cable to share your computer screen. For details, see "Sharing the Computer Screen", Features Reference.
- Be sure to use the AC adapter and USB cable that come with this machine.

- Store this machine and the Quick Guide in the supplied bag. When storing accessories, such as the AC adapter and USB cable, use the accessory bag.
- When placing this machine in the supplied bag, be sure to remove all cables and the AC adapter.

# Guide to Components

## 1

### Front and Top View



CZS018

#### 1. Speaker

Outputs audio from other parties.

#### 2. Camera unit

Captures live video that is transmitted to other parties.

#### 3. Microphone

Inputs audio from the machine.

#### 4. Display

Displays video output

#### 5. Display unit

This machine consists of a stand unit and a display unit.

Raise the display unit when using the machine.

#### 6. USB port (type mini-B)

Used to connect the machine to your computer and share the computer screen.

#### 7. Audio input

Used to connect the machine to the analog audio input device, such as a microphone or headset.

#### 8. Audio output

Used to connect the machine to the analog audio output device, such as a headphones or headset.

#### 9. Control Panel

Provides a set of keys used to operate the machine.

For details about the control panel, see page 16 "Control Panel".

#### 10. USB ports (type A)

Used to connect digital audio input/output devices such as a USB microphone speaker, and video input devices such as a USB camera.

#### 11. Anti-theft lock hole

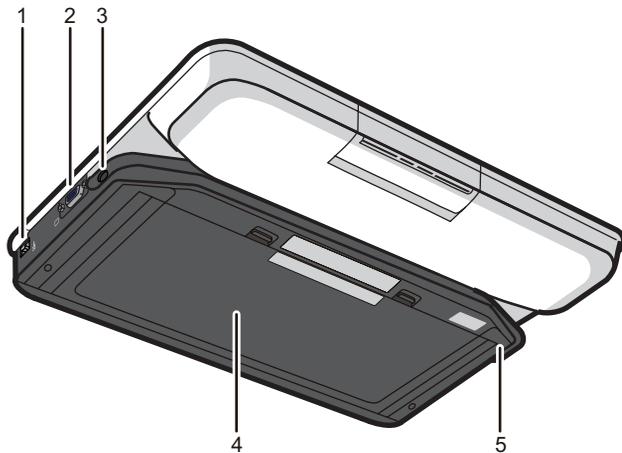
Hole for connecting the anti-theft chain.

#### 12. Battery status indicator

Displays the charging status and remaining battery level.

For details about battery status indicator, see page 39 "Checking the Battery Status".

## Left Side and Bottom View



CZS019

#### 1. Ethernet port

Port to which the 1000BASE-T, 100BASE-TX, or 10BASE-T cable connects. This port is used when connecting the machine to a wired network.

#### 2. Analog RGB connector

Connector used to connect this machine to a video output device, such as a projector or monitor, via a RGB (VGA) connector.

#### 3. Power connector

Connector for connecting the cord of the AC adapter.

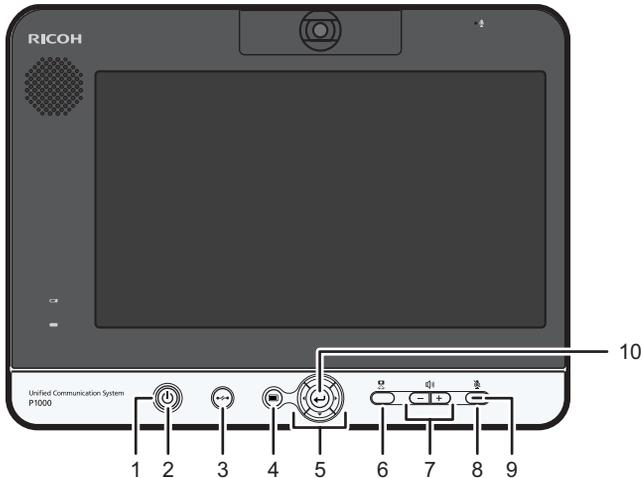
#### 4. Battery cover

Open this cover if attaching or removing the rechargeable battery.

#### 5. Stand unit

Use this unit as a stand when using the machine.

## Control Panel



CZS020

### 1. Power indicator

Lights when the machine turns on.

This indicator blinks while the machine is starting up or shutting down.

### 2. [Power] key/⏻

Used to turn the machine on and off.

### 3. [Disconnect] key/📴

Used to leave a meeting.

### 4. [Menu] key/☰

Used to display the Menu screen.

### 5. Cursor keys ([▲] [▼] [◀] [▶] key)

Used to select a menu, dialog, or setting.

These keys are also used to switch between screen layouts during a meeting.

### 6. [Camera] key

Used to change the display of the camera.

For details about changing the display of the camera, see page 41 "Adjusting the Camera".

### 7. Speaker volume keys ([−] [+] key)

Used to adjust the speaker volume.

### 8. [Mute] key

Used to temporarily disable audio input on the machine.

### 9. Mute indicator

Flashes if the [Mute] key is used to disable the microphone.

**10. [Enter] key/↵**

Used to activate the menu, setting, or set value selected with the cursor keys.

This key is also used to connect and leave a meeting.

# Place to Install

1

---

## Installation Requirements

---

### **WARNING**

- Do not place vases, plant pots, cups, toiletries, medicines, small metal objects, or containers holding water or any other liquids, on or close to this machine. Fire or electric shock could result from spillage or if such objects or substances fall inside this machine.

### **WARNING**

- Do not use flammable sprays or solvents in the vicinity of this machine. Doing so could result in fire or electric shock.

### **WARNING**

- Keep the product and attachments out of the reach of children. If the product is near children, it might fall over and cause an injury.

### **CAUTION**

- Keep the machine away from humidity and dust. Otherwise a fire or an electric shock might occur.

### **CAUTION**

- Do not place heavy objects on the machine. Doing so can cause the machine to topple over, possibly resulting in injury.

### **CAUTION**

- Do not place the machine in an unsafe environment such as on an unstable or tilted surface. If it falls over, an injury might occur.

### **CAUTION**

- Do not place the product or use it in an environment where it might get wet such as from snow, rain, or being near water. Doing so could result in fire or electric shock.

### **CAUTION**

- Do not place the cord of the AC adapter and connection cable in a way that might cause someone to trip and fall. The product might fall over and cause an injury.

**⚠ CAUTION**

- Do not place or store the product in a location where direct sunlight or heat generation might occur. The heat may deform or wear out the exterior parts or negatively affect internal parts. Doing so could result in fire.

**⚠ CAUTION**

- Do not expose the product to salt air or corrosive gas. Also, do not place the product in a laboratory or other location where a chemical reaction might occur. Doing so may cause the product to malfunction.
- Do not use or store this machine in a place that is exposed to soot, cigarette smoke, or any other type of smoke. Doing so may soil the machine, resulting in shorter product life and lower video quality.
- Abrupt changes in temperature may cause drops of water to form inside the machine, resulting in a phenomenon called dew condensation. Continuing to use the machine in this condition may lead to product failure or malfunction. If dew condensation forms, wait until the drops of water evaporate before using the machine.
- Do not use this machine when it is improperly positioned or oriented. Doing so may lead to failure or shorten the product life.
- Route and position the cord of the AC adapter and other cables so that other users do not trip over them. Tripping over the cables may cause the machine to fall, resulting in personal injury.
- Do not place the product in a location where air flow is poor. Doing so may cause fire due to internal components becoming overheated.
- There are ventilation ducts on the back of the camera unit and the bottom of this machine. Do not block the ventilation ducts.
- Do not put this machine or the machine's battery in a microwave.

**Preventing the deterioration of sound quality**

- Keep objects that may cause the sound quality to deteriorate away from the microphone or speaker.
- Blocking both the microphone and speaker may cause the sound quality to deteriorate.
- Do not place devices that generate noise, such as projectors or computers, near the machine.
- When using the machine in a room where sound echoes, try keeping your voice as low as possible during meetings to avoid distracting echoes.
- Make sure there is sufficient space between this machine and the wall.
- Keep this machine away enough from the other party's device, for example, when the other party's voice can be heard directly instead of through a speaker.
- Do not move the machine during a meeting.

- If you plan to use an external microphone and speaker, see the manual for details about how to use the device.
- When using an external microphone speaker, keep it away from the air outlet of the machine. Placing an external microphone speaker too close to the air outlet can cause the audio quality to deteriorate.

### **About network environment**

- A poor network environment can cause delays in video streaming during meetings.
- When using a wireless network, communication quality may deteriorate or communication may be lost, depending on the environment in which the machine is used. If these problems occur, use a wired network instead. To switch to a wired network, you must first turn the machine off and then turn it back on.
- When using a wireless network, radio or electromagnetic interference or weak reception may cause the following problems to occur during meetings:
  - Delays in video streaming.
  - Video is stopped.
  - Audio of other party cuts out.
  - Synchronization between video and audio is lost.
  - Audio quality deteriorates.
  - Meetings are automatically ended or left.
  - Delays in video streaming occur when sharing computer screen.
  - Your video and the other party's video disappear and only audio is heard.
  - Screen image does not display properly when the screen layout is changed.
  - The Contact List or contact status do not appear, or it takes longer than expected for each to be displayed.
  - The attempt to update the firmware fails, or it takes an excessively long time for the update to finish.
  - The machine does not start.
  - You cannot connect to other party.

If you experience one of the problems above, take one of the following actions. The action to be taken depends on the wireless network environment you are using:

- If IEEE802.11b and IEEE802.11g/n are in the same wireless network environment, the IEEE802.11b connection may be used first. The recommended line speed for the machine is 1 Mbps. To use the machine at a stable line speed, we recommend using it in a wireless network environment in which only IEEE802.11g/n is available.
- Avoid environments that have multiple wireless LAN standards.
- Turn off any wireless networking or radio devices that are not being used.

- If there are multiple devices in the environment that support IEEE802.11n, use IEEE802.11n with a single channel.
- Use the machine in an environment with stable reception, making sure to confirm the distance from the access point and check for any obstructions.
- If the environment has multiple wireless LAN standards, change the access point channel. There should be a difference of at least five between the channel settings for each LAN standard. For example, set one standard to channel 1 and the other to channel 6.
- Keep the machine as far away as possible from highly conductive objects such as metal.
- This wireless product uses the 2.4 GHz band. Make sure there is no industrial, scientific, or medical equipment that uses the same frequency band currently in operation, such as a microwave. Interference can cause communication to become unstable. Before using the machine, make sure that there is no equipment around that may potentially cause interference.
- If you experience radio interference or other wireless networking problems, please call the support desk.

Use this machine in an environment that meets the following conditions:

Specification	Description
Temperature	<ul style="list-style-type: none"> <li>• Operating 5 - 35 °C (41 - 95 °F)</li> <li>• Non-operating 0 - 43 °C (32 - 109.4 °F)</li> </ul>
Humidity	<ul style="list-style-type: none"> <li>• Operating 15 - 80 % (Non-condensing)</li> <li>• Non-operating 10 - 90 % (Non-condensing)</li> </ul>
Maximum Altitude	3,000 m (10,000 feet)

## Operating Environment for This Machine

The following operating environments are required to use this machine:

**Power Source**

Specification	Operating environment
Power Source	<ul style="list-style-type: none"> <li>For mainly Europe 220 V - 240 V, 50 Hz</li> <li>For mainly Asia 110 V, 220 V - 240 V, 50/60 Hz</li> <li>For mainly North America 120 V, 60 Hz</li> </ul>

**Network**

Specification	Operating environment
Interface	<p>Network with one of the following interfaces that can connect to the Internet</p> <ul style="list-style-type: none"> <li>Wired Network 10BASE-T, 100BASE-TX, 1000BASE-T</li> <li>Wireless Network IEEE802.11g, IEEE802.11b, IEEE802.11n</li> </ul>
Line speed	Minimum: 500 Kbps, Recommended: 1 Mbps or higher
Port	<p>The following port numbers are available for communication:</p> <ul style="list-style-type: none"> <li>When no proxy is used TCP: 80, 443, 5222, 17990, 17992 UDP: 50000 - 65535*<sup>1</sup></li> <li>When a proxy is used TCP: 443</li> </ul>
Frequency Range (Wireless Network)	<ul style="list-style-type: none"> <li>For mainly Europe and Asia 2412 MHz - 2472 MHz (Ch1 - Ch13)</li> <li>For mainly North America 2412 MHz - 2462 MHz (Ch1 - Ch11)</li> </ul>

Specification	Operating environment
Authentication (Wireless Network)	<ul style="list-style-type: none"> <li>Authentication method Open system authentication, shared key authentication, WPA-PSK, WPA2-PSK, WPA-EAP, WPA2-EAP</li> <li>Encryption method WEP (128bit/64bit), TKIP, AES</li> </ul>

\* 1 A port in the range of 50000 to 65535 is selected as the port used for communication, according to the environment and conditions.

#### ↓ Note

- This machine only supports the Basic authentication method when a proxy is used.
- When using a proxy to connect to a meeting, it may take longer for the meeting.
- For details about network settings, see "Changing Network Configuration", Features Reference.

### Analog Audio Input Device

Specification	Operating environment
Supported device	Microphone or headset
Interfaces	Audio input

#### ↓ Note

- This machine cannot accept two audio input devices connected at the same time. If the digital audio input/output device is connected, you can only use digital audio input/output device.

### Analog Audio Output Device

Specification	Operating environment
Supported device	Headphones or headset
Interfaces	Audio output

#### ↓ Note

- This machine cannot accept two audio output devices connected at the same time. If the digital audio input/output device is connected, you can only use digital audio input/output device.

### Digital Audio Input/Output Device

Specification	Operating environment
Supported device	USB microphone speaker

Specification	Operating environment
Interfaces	USB (type A)

**Note**

- You cannot connect and use two different digital audio input/output devices at the same time.
- You can use the left and right USB ports (A type) on this machine.

### Video Input Device

Specification	Operating environment
Supported device	USB camera
Interfaces	USB (type A)

**Note**

- Only video is input from a video input device. If the camera has a microphone, the microphone is disabled.

### Video Output Device

Specification	Operating environment
Supported device	Monitor or projector
Resolution	1024 × 768 pixels (XGA), 1280 × 800 pixels (WXGA)
Interfaces	Analog RGB

**Note**

- If a video output device is connected, video is output only to the video output device.
- If the device being used supports resolutions of both 1024 × 768 pixels (XGA) and 1280 × 800 pixels (WXGA), the screen is displayed at a resolution of 1280 × 800 pixels (WXGA).
- Some projectors or monitors may not be able to display images from this machine correctly.
- Video output devices that do not meet these operating environment conditions may not be able to be display images from this machine correctly.

# Attaching the Rechargeable Battery

## ⚠ WARNING

- For safe operation, follow the warnings below regarding the battery. If you use a battery incorrectly, it may result in fire or injury due to battery leaking or exploding.
  - Do not use batteries other than the ones supplied.
  - Do not charge non-rechargeable batteries.
  - Do not heat or throw the batteries into fire or water.
  - Do not connect the connecting terminals on a battery with a wire.
  - Keep the batteries out of the reach of children.

## ⚠ WARNING

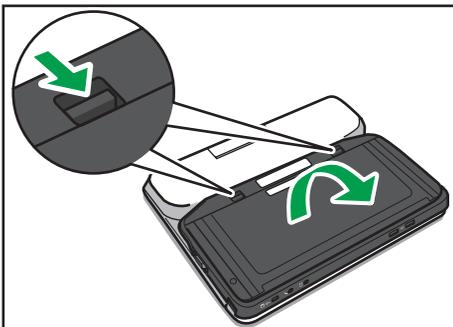
- What to do if a battery has leaked
  - If leakage from a battery adheres to your skin, rinse it with water immediately, and then contact a doctor.
  - Wipe off the leakage with tissue paper while being careful not to touch it.
  - Soak the tissue paper that you used in water, and then throw it away as burnable trash.

## ★ Important

- When you attach the rechargeable battery, do not connect an AC adapter.
- This machine and the battery cover are tied with a strap to prevent their loss. Do not use excessive force to remove the battery cover.
- Do not attempt to raise or move this machine by the battery cover.

Open the battery cover on the bottom of this machine and insert the rechargeable battery.

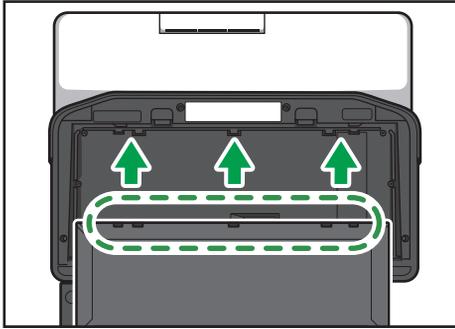
1. Push the cover latch in the direction of the arrow and slowly lift up the battery cover.



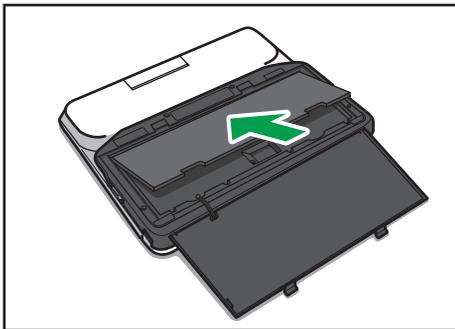
CZR037

**2. Align the top of the rechargeable battery with this machine.**

Align the holes in the rechargeable battery with the projections on this machine.

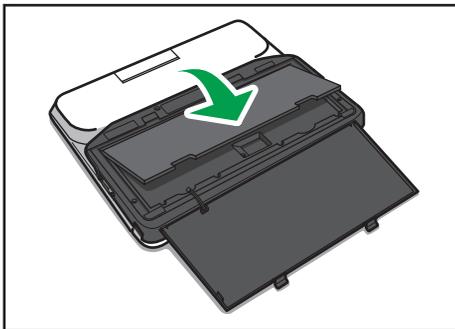


CZR038



CZR039

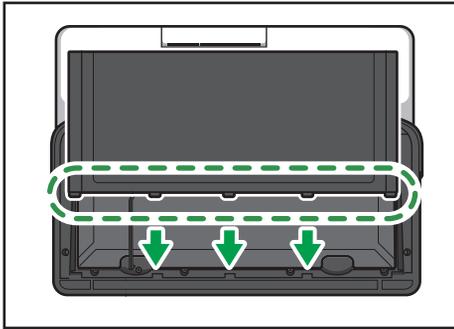
**3. Insert the rechargeable battery and push it down until you hear a clicking sound.**



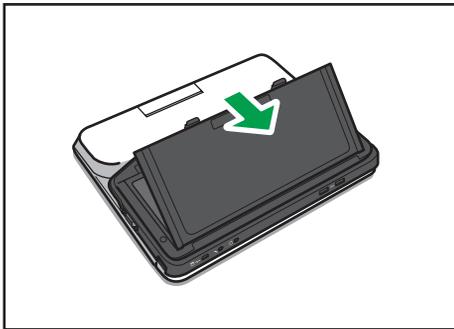
CZR040

**4. Align the bottom of the battery cover with this machine.**

Align the projections on the battery cover with the holes in this machine.

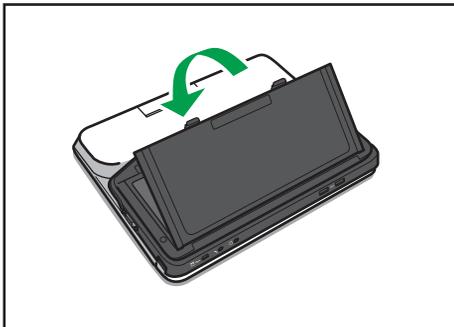


CZR041



CZR046

5. Close the battery cover and push it down until you hear a clicking sound.



CZR042

6. After attaching the rechargeable battery, connect an AC adapter to charge the battery.  
For details about how to connect the AC adapter, see page 28 "Connecting the AC Adapter".

## Connecting the AC Adapter

### **WARNING**

- Do not use any power sources other than those that match the specifications shown. Doing so could result in fire or electric shock.

### **WARNING**

- Do not damage, break, or modify the AC adapter or cord of the AC adapter. Also, do not place heavy objects on the cord of the AC adapter, or pull the cord or bend it severely. Doing so could result in fire or electric shock.

### **WARNING**

- The supplied AC adapter is for use with this machine only. Do not use it with other appliances. Doing so could result in fire or electric shock.

### **WARNING**

- It is dangerous to handle the power plug with wet hands. Doing so could result in electric shock.

### **WARNING**

- Do not use the AC adapter or cord of the AC adapter if it is deformed, cracked, or damaged. Doing so could result in fire or electric shock. If the AC adapter or cord of the AC adapter is deformed, cracked, or damaged, contact your service representative to request a replacement cable.

### **WARNING**

- When using an extension cord or power strip, only connect equipment whose total power consumption is within the power rating for the extension cord or power strip. If the power rating is exceeded, it may cause heat buildup and result in fire.

### **CAUTION**

- Push the AC adapter all the way into the power outlet. Do not use a power outlet with a loose connection. Doing so may result in heat buildup. Plug the AC adapter and cord of the AC adapter in the correct direction into the base. If they are not plugged in correctly, it could result in smoke, fire, or electric shock.

**⚠ CAUTION**

- If this machine is not going to be used for several days or longer at a time, disconnect the AC adapter from the wall outlet.

**⚠ CAUTION**

- When disconnecting the AC adapter from the wall outlet, always pull the AC adapter, not the cord of the AC adapter. Pulling the cord can damage the cord. Use of damaged cords of the AC adapter could result in fire or electric shock.

**⚠ CAUTION**

- Be sure to disconnect the plug from the wall outlet and clean the prongs and the area around the prongs at least once a year. Allowing dust to build up on the plug constitutes a fire hazard.

**⚠ CAUTION**

- When performing maintenance on the machine, always disconnect the AC adapter from the wall outlet.

**⚠ CAUTION**

- Do not disassemble or modify the AC adapter. Doing so may result in burns or electric shock. Contact your service representative if the AC adapter needs repaired.

**⚠ CAUTION**

- Do not wrap the AC adapter cord around the AC adapter. If the cord is damaged or the inner wire is exposed, it may result in fire, electric shock, or burns.

**⚠ CAUTION**

- It is recommended that you do not touch the AC adapter when using the product. Possible heat buildup in the AC adapter may cause burns.

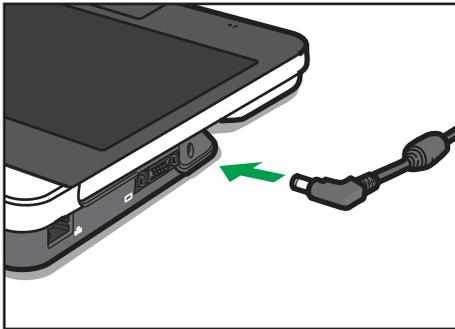
**★ Important**

- The remaining amount of battery power when this machine is shipped from the factory is not 100%. When you turn on this machine for the first time, be sure to use the AC adapter.
- If this machine has not been used for an extended period of time, charge the battery before use, or connect the AC adapter.
- Only use the supplied AC adapter indoors.

**1. Attach the power plug to the AC adapter.**

Attach the power plug in the shape that matches your environment.

**2. Connect the cord of the AC adapter to the power connector inlet on this machine.**



CZR011

**3. Connect the AC adapter to the AC outlet.**

**↓ Note**

- The rechargeable battery starts charging automatically when you connect the AC adapter.
- For details about how to check the remaining battery level, see page 39 "Checking the Battery Status".
- For details about the operating time of the rechargeable battery, see page 57 "Specifications".

# Connecting Cables

Connect the machine to the devices if necessary.

Use the appropriate interface to connect the video output device.

For details about requirements for video output device, see page 21 "Operating Environment for This Machine".

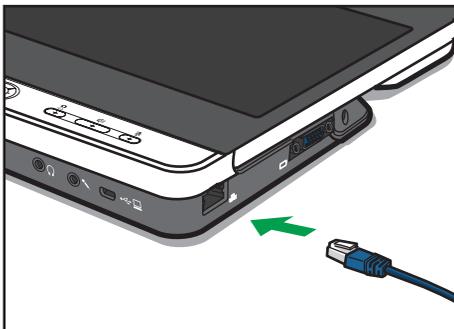
1

## Connecting an Ethernet Cable

### ★ Important

- Make sure the machine is off before connecting an Ethernet cable.
- Make sure the Ethernet cable is connected to a hub. Do not connect to a network switch.
- Use the following Ethernet cables.
  - When using 100BASE-TX/10BASE-T:  
Unshielded Twisted Pair Cable (UTP) or Shielded Twisted Pair Cable (STP) and Category type 5 or more
  - When using 1000BASE-T:  
Unshielded Twisted Pair Cable (UTP) or Shielded Twisted Pair Cable (STP) and Category type 5e or more

1. Connect the Ethernet cable to the Ethernet port on this machine.



CZR030

2. Connect the other end of the Ethernet cable to the network connection device.

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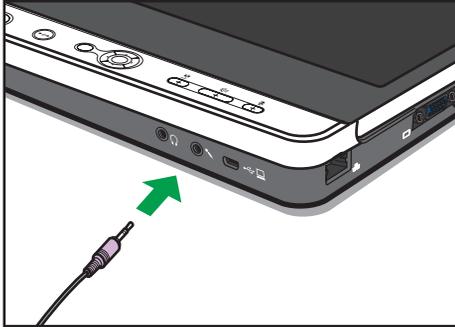
## Connecting an Analog Audio Input Device

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**★ Important**

- This machine cannot accept two audio output devices connected at the same time. If the digital audio input/output device is connected, you can only use digital audio input/output device.

1. Connect audio input connector to the machine.



CZS033

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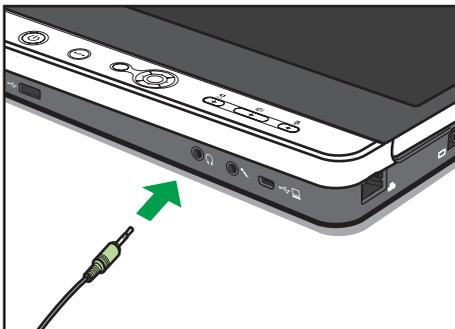
## Connecting an Analog Audio Output Device

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**★ Important**

- This machine cannot accept two audio output devices connected at the same time. If the digital audio input/output device is connected, you can only use digital audio input/output device.

1. Connect audio output connector to the machine.



CZS032

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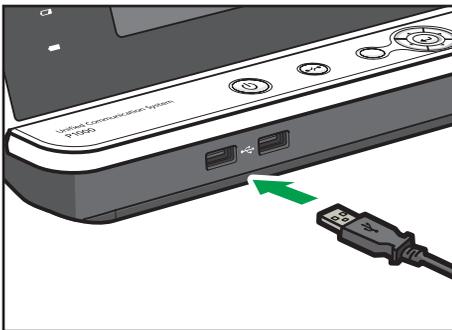
## Connecting a Digital Audio Input/Output Device

---

### ★ Important

- This machine cannot accept two audio output devices connected at the same time. If the digital audio input/output device is connected, you can only use digital audio input/output device.
- You cannot connect and use two different digital audio input/output devices at the same time.
- Do not attempt to connect or disconnect the digital audio input/output device while connecting or receiving a call, or while in the middle of a meeting. Doing so will cause problems with the audio.

1. Connect the A connector end of the USB cable to the USB port (type A) on this machine.



CZS021

### ↓ Note

- You can use the left and right USB ports (A type) on this machine.
- You cannot adjust the volume or mute a connected digital audio input/output device from the machine. You must adjust the volume settings on the actual device. For details about how to use the digital audio input/output device, see the manuals provided with the digital audio input/output device.

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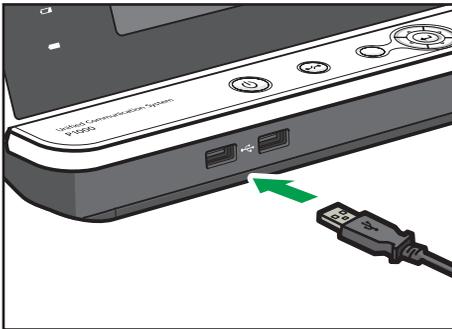
## Connecting a Video Input Device

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### ★ Important

- You cannot connect and use two different video input devices at the same time.
- Do not connect or disconnect a video input device after connecting or receiving a call, or before starting a meeting.

1. Connect the A connector end of the USB cable to the USB port (type A) on this machine.



CZS021

The screen switches to the video from the video input device.

**Note**

- When you disconnect the video input device, the screen switches to the video from the camera of this machine. When disconnecting, and then reconnecting the video input device, or when connecting a different video input device, remove the cable, make sure that the screen switches to the video from the camera of this machine, and then connect the video input device.
- A single digital audio input/output device can be used together with a video input device.

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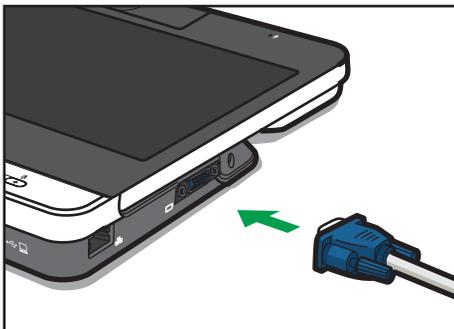
## Connecting a Video Output Device

---

**Important**

- Make sure the machine is off before connecting to a video output device.

1. Connect the analog RGB connector to the machine.



CZR029

2. Connect the analog RGB connector to the video output device.

**Note**

- For details about how to connect the cable to the video output device, see the manuals provided with the video output device.



# 2. Operating the Machine

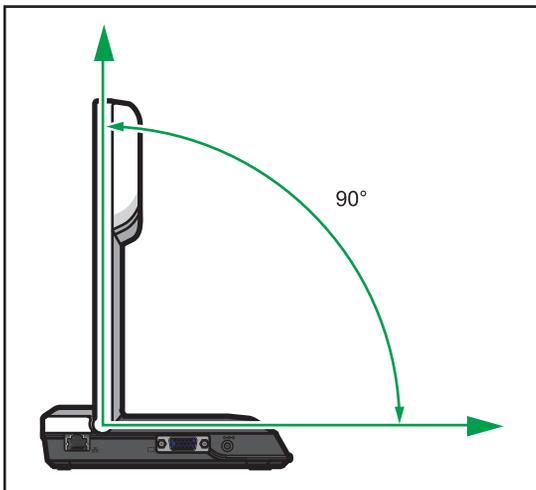
## Raising the Display Unit

**★ Important**

- Do not attempt to move the display unit beyond its range of movement.
- When adjusting the angle of the display unit during a meeting, do not block the microphone. Doing so may reduce the sound quality.

**Range of movement**

The camera arm can move within the following range:  
0°-90° (when the display unit is folded all the way down.)



CZR018

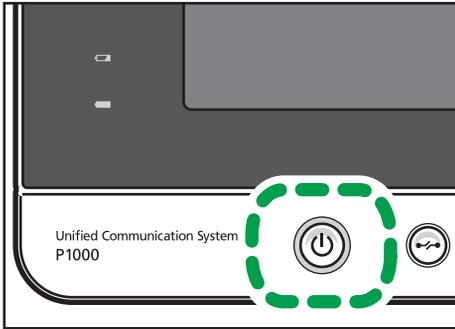
**1. Raise the display unit.**



CZS022

# Turning On the Power

1. Press and hold the [Power] key/⏻ for two seconds.



CZS024

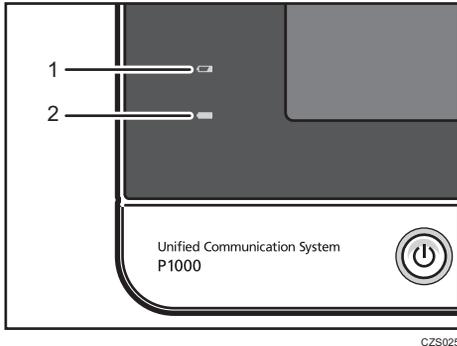
## ↓ Note

- Depending on the network environment you are using, it may take the machine one minute or more to connect to the network.
- If the message "Connecting to the network..." remains displayed throughout the startup process, there is a problem preventing the machine from connecting to the network. For details about how to display the Configuration Menu screen in this state, see "About Screen", Features Reference. For details about what to do if the machine cannot connect to the network, see "When the Machine Cannot Connect to the Network", Features Reference.

# Checking the Battery Status

## Battery Status Indicator

The battery status indicator includes two indicators as follows:



CZS025

### 1. Battery level indicator

Displays the remaining battery level when this machine is turned on without connecting the AC adapter.

Battery level	Indicator
More than 50 %	Off
50 %	Blinks at 1 second intervals.
20 % or less	Blinks at 0.5 second intervals.

#### ↓ Note

- The battery level indicator does not blink when this machine is turned off or when the AC adapter is connected.

### 2. Battery charge indicator

Displays the battery charging status when the AC adapter is connected.

Battery charging	Indicator
Full	When the machine is turned on: Off When the machine is turned off: Lights
Charging	Blinks at 2 second intervals.

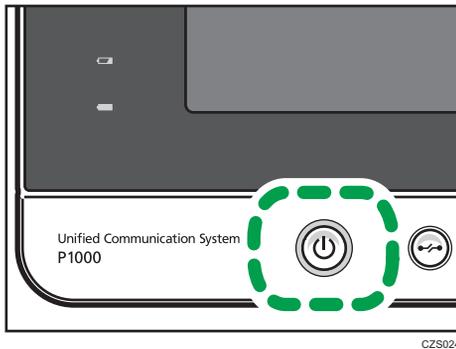
## Turning on the Machine for the First Time

When you turn on the machine for the first time, a screen used to specify the language, date, and time will appear. Select the language, date, and time for the environment in which you plan to use the machine.

### ↓ Note

- You can also specify the language, date, and time from Menu screen. For details about how to specify these items from Menu screen, see "Changing the Language and Time Zone", Features Reference.

#### 1. Press the [Power] key/⏻.



After the startup screen appears, the language selection dialog box appears.

- Press the cursor keys ([▼] [▲] [◀] [▶] keys) to select the language, and then press the [Enter] key/↵.
- Press the [Enter] key/↵.
- Press the [Enter] key/↵ to display the list.
- Press the [▼] or [▲] key to select the language, and then press the [Enter] key/↵.  
Select the language to determine the data and time format.
- Press the [▼] or [▲] key to select the format, and then press the [Enter] key/↵.
- Press the [▼] key to select [Next], and then press the [Enter] key/↵.
- Press the [Enter] key/↵ to display the list.
- Press the cursor keys ([▼] [▲] [◀] [▶] keys) to select the region, and then press the [Enter] key/↵.
- Press the [▼] or [▲] key to select the time zone, and then press the [Enter] key/↵.
- Press the [Enter] key/↵.
- Confirm that the settings are correct, and then press the [Enter] key/↵.

# Adjusting the Camera

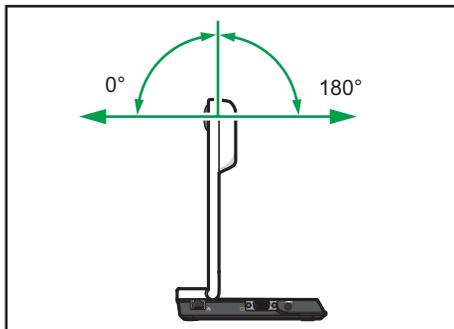
## ★ Important

- Do not attempt to raise or move this machine by the camera unit.
- Do not attempt to move the camera unit beyond its range of movement.
- Observe the following precautions when handling the camera lens:
  - Do not touch the lens.
  - Do not push down on the lens.
  - Do not rub the lens.

## Ranges of movement

The camera can move within the following range:

0°-180° (when the vertical position of the camera unit is 0 degrees)



CZR020

1. Adjust the orientation by moving the machine and rotating the camera unit vertically while checking the screen display.

Set the camera so that the desired object is displayed on the screen.



CZR026

## ↓ Note

- When the camera unit is set at a 90 degree angle, the video is displayed upside down.

- Fingerprints or dust on the lens cover can cause image quality to deteriorate. If the lens cover is dirty, lightly wipe it with a soft cloth.

---

## Changing the Display of the Camera

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2

You can change the display of the camera by pressing the [Camera] key.

Each time you press the [Camera] key, the display is changed in the following order.

1. Wide



2. Zoom

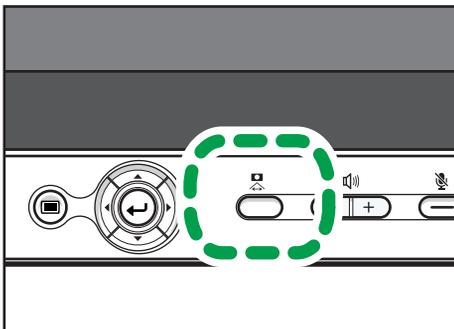


3. Video OFF

Turns off the display of the camera.

Change the display of the camera depends on the environment or shooting target.

1. Press the [Camera] key to change the display.



CZS028

# Changing the Brightness of the Display

You can change the brightness of the display from Menu screen.

For details about how to change the brightness, see "Changing the Brightness of the Display", Features Reference.

## Note

- You cannot change "Brightness:" while a video output device is connected. Change the brightness on the video output device.

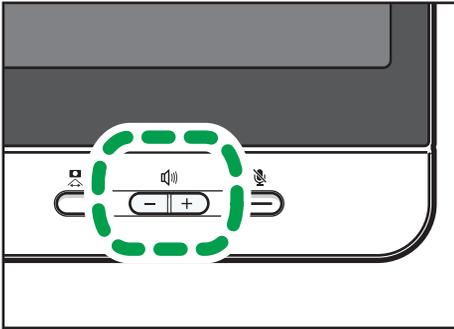
# Adjusting the Volume

You can adjust the audio volume and temporarily mute the microphone.

2

## Adjusting the Speaker Volume

1. Use the [-] and [+] keys to adjust the volume.



CRZ022

To lower the volume, press the [-] key.

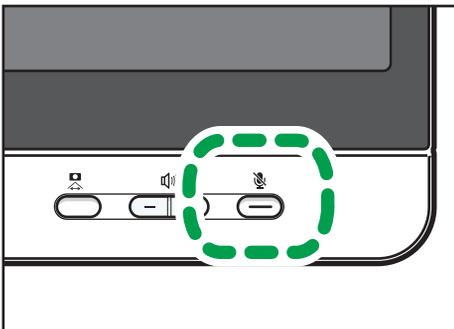
To raise the volume, press the [+] key.

**Note**

- If the digital audio input/output device is connected, you cannot adjust the volume from the machine. For details about how to adjust the volume of your the digital audio input/output device, see the respective manual for device.

## Muting the Microphone

1. Press the [Mute] key.



CRZ023

The Mute indicator starts blinking to indicate the microphone has been muted.

**2. To cancel mute, press the [Mute] key again.**

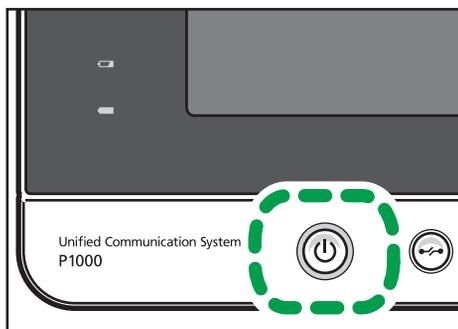
The Mute indicator turns off to indicate that mute has been cancelled.

**↓ Note**

- If the digital audio input/output device is connected, you cannot mute them from the machine. For details about how to mute your the digital audio input/output device, see the respective manual for device.

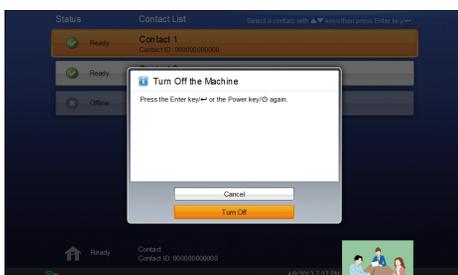
## Turning Off the Power

1. Press the [Power] key/🔌.



CZS024

2. Press the [▼] or [▲] key to select [Turn Off], and then press the [Enter] key/↵.



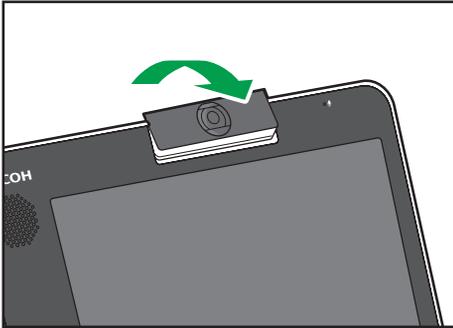
### ⬇ Note

- You can also turn off the machine by pressing the [Power] key/🔌 twice in Step 1.

# Returning the Display Unit Into Place

## ★ Important

- Do not attempt to raise or move this machine by the camera unit.
  - Do not attempt to move the camera unit or the display unit beyond its range of movement.
1. Carefully rotate the camera and return to its original position.



CZS027

2. Return the display unit to its original position.



CZS023

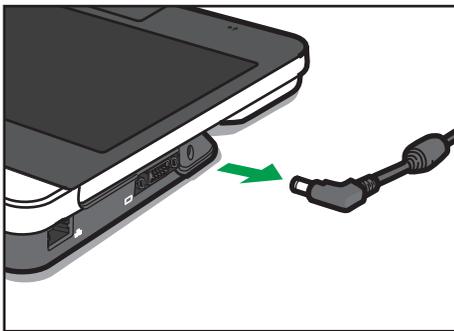


# 3. Packing Up the Machine

## Removing Cables and Packing Up the Machine

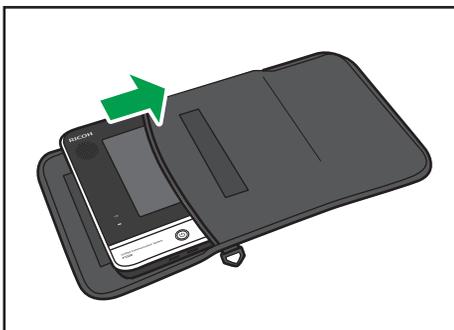
### ★ Important

- Before packing up the machine, make sure the machine is off by checking whether the Power indicator is lit.
1. Remove the cables of the audio input/output device from the machine, if it is connected.
  2. Remove the cable of the video output device from the machine, if it is connected.
  3. Remove the AC adapter from the power connector inlet on the machine.



CZR026

4. Pack the machine and AC adapter in the supplied bag.



CZS029

### ↓ Note

- If the USB cable for the PC Screen Share is connected, remove the USB cable. Pack the USB cable in the supplied bag.
- Store this machine and the Quick Guide in the supplied bag. When storing accessories, such as the AC adapter and USB cable, use the accessory bag.
- Be sure to disconnect all cables and the AC adapter before placing this machine in the bag.



# 4. Troubleshooting

This chapter describes common problems of the machine.

For details about network problems and messages, see "Troubleshooting", Features Reference.

## When You Have Problems Operating the Machine

**★ Important**

- If the problem continues to persist even you after follow instructions given to resolve the problem, contact the support desk.

Problems	Causes	Solutions
The machine does not turn on.	The AC adapter is not connected correctly.	<ul style="list-style-type: none"><li>• Check that the cord of the AC adapter is connected to the machine.</li><li>• Check that the AC adapter is connected to the AC outlet correctly.</li></ul> For details about how to connect the AC adapter, see page 28 "Connecting the AC Adapter".
The machine does not turn on.	The battery is running low on power.	Connect the AC adapter to recharge the battery.
The startup screen is displayed.	The machine is starting.	If this machine does not start within two minutes of pressing the [Power] key, press and hold the [Power] button down for at least four seconds to turn it off, and then turn the machine back on.  If the machine still does not start, contact the support desk.
The video output device being used does not display any video.	The video output device being used does not turn on.	Check that the video output device has been turned on.

Problems	Causes	Solutions
The video output device being used does not display any video.	The video output device being used is not configured correctly.	Check that the video output device being used is configured correctly.
The camera of this machine does not display any video.	This machine is used in a place with high temperatures, such as a place exposed to direct sunlight or inside a car. As a result, the internal temperature of the machine increases, which causes video capture to stop.	<p>Move this machine to a place with a lower temperature and wait for a while.</p> <p>Data capture resumes when the internal temperature of the machine has fallen sufficiently.</p>
Cannot be connected to the contact whose status is "Ready".	An error occurred on the other party's machine. If the error message is displayed, the machine cannot be received the call.	Ask the party to solve the problem.
Cannot connect to the contact whose status is "Ready" or "Meeting".	<p>The status of the contact is changed suddenly, if the machine of the other party is disconnected from the network, or the machine is turned off. In this case, the status might be displayed continuously "Ready" or "Meeting" even the actual status has changed.</p> <p>It takes up to two minutes to update the status of the contact.</p>	Wait for two minutes, and then check the status of the contact and try to connect again.

Problems	Causes	Solutions
Cannot connect to the contact whose status is "Ready" or "Meeting" after disconnecting from the contact.	The status of the contact is changed suddenly, if the machine of the other party is disconnected from the network, or the machine is turned off. In this case, the status might be displayed continuously "Ready" or "Meeting" even the actual status has changed.  It takes up to two minutes to update the status of the contact.	Wait for two minutes, and then check the status of the contact and try to connect again.
The screen layout cannot be changed during a meeting.	A dialog box indicating that you are leaving the meeting or turning off the machine appears.	Check the dialog box that appears. Use the cursor keys to select the appropriate key, and then press the [Enter] key/↵ to close the dialog box.
Video or audio of other party cuts out.	The wireless network problem is occurred, such as radio/electromagnetic interference or weak reception.	Contact your network administrator.
Deterioration of sound quality	Howling might be occurred if placing objects near the microphone or speaker.	Keep objects away from the microphone or speaker.
Deterioration of sound quality	Howling might be occurred if blocking both the microphone and speaker.	Do not block both the microphone and speaker.
Deterioration of sound quality	Howling might be occurred if placing objects or hands in front of the microphone.	Keep objects or hands away from the microphone.
Deterioration of sound quality	Howling might be occurred if the machine is located near the devices that generate noise.	Do not place devices that generate noise, such as projectors or computers, near the machine.

Problems	Causes	Solutions
Deterioration of sound quality	Howling might be occurred if the machine is located just next to the wall.	Make sure there is sufficient space between this machine and the wall.
Deterioration of sound quality	Howling might be occurred if using the machine in a room where sound echoes.	Try keeping your voice as low as possible during meetings to avoid distracting echoes.
Deterioration of sound quality	Howling might be occurred if using the machine close to the other party's device for example, when the other party's voice can be heard directly instead of through a speaker.	Keep this machine away enough from the other party's device.
Deterioration of sound quality	Howling might be occurred if the audio volume is set too loud.	Adjust the audio volume on the machine. For details about how to adjust the volume, see page 44 "Adjusting the Volume".  If you are using a digital audio input/output device, adjust the volume of the digital audio input/output device. For details about how to adjust the volume, see the respective manual for the device.
Deterioration of sound quality	Howling might be occurred if your voice is too loud.	<ul style="list-style-type: none"> <li>• Keep away from the microphone.</li> <li>• Lower your voice.</li> </ul>
Deterioration of sound quality	Howling might be occurred if the machine is moved during a meeting.	Before moving the machine, mute the microphone of your machine. After you finish moving the machine, cancel mute.

Problems	Causes	Solutions
The sound is distorted.	If the audio from the other party is too loud or the speaker volume of the machine is raised excessively, the audio might become distorted.	<ul style="list-style-type: none"> <li>• Lower the speaker volume of the machine. For details about how to lower the volume, see page 44 "Adjusting the Volume".</li> <li>• If you are using a digital audio input/output device, lower the volume of the device. For details about how to lower the volume, see the respective manual for the device.</li> <li>• Ask the other party to back away from the microphone when they speak.</li> </ul>
The sound cuts in and out.	If you and the other party speak at the same time, the sound may cut in and out.	<p>Wait until the other party is finished before speaking.</p> <p>If the other party speaks for an extended length of time and the audio continually cuts out, mute the microphone of your machine.</p>
No sound can be heard from the other party.	The audio volume is set to the lowest level.	<ul style="list-style-type: none"> <li>• Adjust the audio volume on the machine. For details about how to adjust the volume, see page 44 "Adjusting the Volume".</li> <li>• If you are using a digital audio input/output device, adjust the volume of the digital audio input/output device. For details about how to adjust the volume, see the respective manual for the device.</li> </ul>
No sound can be heard from the other party.	The other party's microphone is muted.	Ask the party to cancel mute.
No audio is input.	The microphone is muted.	Cancel mute. For details about how to cancel mute, see page 44 "Adjusting the Volume".

Problems	Causes	Solutions
The speaker volume cannot be adjusted.	A digital audio input/output device is connected. If a digital audio input/output device is connected, the speaker on the machine is disabled.	<ul style="list-style-type: none"> <li>• Adjust the volume of the digital audio input/output device. For details about how to adjust the volume, see the respective manual for the device.</li> <li>• Remove the digital audio input/output device, and then adjust the volume of the speaker on the machine.</li> </ul>
The microphone cannot be muted.	A digital audio input/output device is connected. The digital audio input/output device cannot be muted from the machine.	Mute the digital audio input/output device. For details about how to mute the digital audio input/output device, see the respective manual for the device.
Firmware Update screen is displayed when turn on the machine.	If a required firmware update is detected. You cannot start a meeting or accept a registration request until the update is complete.	Check the update information, and then start the update immediately.

# 5. Appendix

## Specifications

Item	Specification
Interface	<ul style="list-style-type: none"><li>• Ethernet: 10BASE-T, 100BASE-TX, 1000BASE-T</li><li>• IEEE802.11g, IEEE802.11b, IEEE802.11n</li><li>• Encryption method: WEP128bit/64bit, WPA-PSK(TKIP/AES), WPA2-PSK(AES), WPA-EAP(TKIP/AES), WPA2-EAP(TKIP/AES)</li><li>• USB2.0 (type A) × 2</li><li>• USB2.0 (type mini-B)</li><li>• Analog RGB (VGA)</li><li>• Audio input</li><li>• Audio output</li></ul>
Proxy authentication	Basic authentication
Port	The following port numbers are available for communication: <ul style="list-style-type: none"><li>• When no proxy is used TCP: 80, 443, 5222, 17990, 17992 UDP: 50000 - 65535*<sup>1</sup></li><li>• When a proxy is used TCP: 443</li></ul>
Network bandwidth	Maximum 2Mbps
Video resolution	<ul style="list-style-type: none"><li>• Maximum transmission resolution 480 × 270 pixels</li><li>• Maximum reception resolution 640 × 360 pixels</li></ul>
Frame rate	Up to 10 fps

Item	Specification
Video mode	<ul style="list-style-type: none"> <li>• This machine 1024×600 pixels (WSVGA)</li> <li>• Video output device 1024×768 pixels (XGA), 1280×800 pixels (WXGA)</li> </ul>
Video coding	H.264 Annex G (SVC)
Voice coding	SPEEX wideband/ITU-T G.711/ITU-T G.722
Data transfer	RTP (RFC1889/RFC3550) and RTCP (RFC1890/RFC3551)
Focus	Pan focus
Automatic camera adjustment	<ul style="list-style-type: none"> <li>• Automatic gain control</li> <li>• Automatic white balance control</li> </ul>
Microphone	<ul style="list-style-type: none"> <li>• Automatic echo canceller</li> <li>• Automatic noise reduction</li> <li>• Automatic gain control</li> <li>• Muting</li> </ul>
Noise	40 dB or less
Operating time	Approx. 2 hours
Charging time (From no battery power to full charge)	Approx. 3 hours (while the power is off)
Power Source	<ul style="list-style-type: none"> <li>• For mainly Europe 220 V - 240 V, 50 Hz</li> <li>• For mainly Asia 110 V, 220 V - 240 V, 50/60 Hz</li> <li>• For mainly North America 120 V, 60 Hz</li> </ul>

Item	Specification
Power consumption	<ul style="list-style-type: none"> <li>• When the AC adapter is connected (while the power is off) 0.5 W or less</li> <li>• Maximum 25 W or less</li> <li>• Maximum (when a digital audio input/output device or a video input device are connected) 30 W or less</li> </ul>
External dimensions (W × D × H)	<ul style="list-style-type: none"> <li>• Main unit (display unit folded) (excludes projection) 280.0 × 215.0 × 29.0 mm (11.0 × 8.5 × 1.1 inches)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• This machine Approx. 1.3 kg (2.9 lb.)</li> <li>• AC adapter Approx. 140 g (0.3 lb.)</li> </ul>

\*1 A port in the range of 50000 to 65535 is selected as the port used for communication, according to the environment and conditions.

# Precautions for Use

This section describes precautions for using the machine. It also provides additional information about the machine's specifications.

## Where to use this machine

- The location in which the machine is used may affect the audio quality. Read the information provided on page 18 "Installation Requirements" and select an appropriate location.
- This machine may not work properly depending on the network environment you are using. For details, see page 18 "Installation Requirements".

## Screen

- Do not connect a video output device after you turn on this machine. Doing so can distort the screen image.
- When a video output device is used, the video may be displayed out of place. If the video output device has a function for adjusting the screen position, use this function to adjust the position of the video displayed.
- If the machine is used in a poor network environment or the connection speed is slow, video from a meeting or PC Screen Share may lag or even stop.

## Meetings

- Because the automatic learning function of the echo canceller is active for approximately five to ten seconds after a meeting starts, you may hear a loud noise or howling for a short time. Although this noise greatly diminishes the audio quality and makes it difficult to hear the other contacts, there is nothing wrong with the machine. The audio quality will gradually improve as you continue the meeting and speak with the other parties.
- Depending on the status of the network band, video from you or the other contacts might not be displayed. As a result, you will only be able to hear the voices of the other contacts participating in the meeting.

## PC Screen Share

- Sometimes PC Screen Share may not start automatically when you connect the machine to the computer via a USB cable. If this is the case, the auto-play function on the computer might be disabled. Check whether the function has been disabled. If it has been disabled, enable it. The procedure for enabling and disabling the auto-play function differs depending on the operating system version or edition you are using. For details, see the Windows Help.

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MEMO



