

**Model MD-A3**  
**Machine Codes: E0A4**  
**Field Service Manual**

23 July, 2014



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# Important Safety Notices

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## LEAD-FREE SOLDER

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This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

### WARNING

#### **WARNING**

- This product is manufactured using lead free solder. DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT! The melting temperature of lead-free solder is higher than that of leaded solder by 86 °F to 104 °F (30 °C to 40 °C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product – especially when soldering large components, through-hole pins, and on PCBs - as the level of heat required to melt lead-free solder is high.

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## Prevention of Physical Injury

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1. Before disassembling or assembling parts of the machine and peripherals, make sure that the machine power cord is unplugged.
2. The wall outlet should be near the machine and easily accessible.
3. If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrified or mechanically driven components.
4. The machine drives some of its components when it completes the warm-up period. Be careful to keep hands away from the mechanical and electrical components as the machine starts operation.

#### **CAUTION**

- RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
- DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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## Observance of Electrical Safety Standards

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The machine and its peripherals must be serviced by a customer service representative who has completed the training course on those models.

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## Safety and Ecological Notes for Disposal

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1. Dispose of replaced parts in accordance with local regulations.

### **WARNING**

- To prevent a fire or explosion, keep the machine away from flammable liquids, gases, and aerosols. A fire or an explosion might occur.

This product contains substances which are harmful to humans and the environment.

- The lamp contains mercury.

Please dispose of this product or used lamps in accordance with local regulations.

**The following information is only for EU-member states:**






The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office or your household waste disposal service.

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# Symbols and Trademarks

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Screw
	Connector
	Spring

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## Trademarks

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Firefox is a registered trademark of the Mozilla Foundation.

Macintosh and Mac OS are trademarks of Apple Inc., registered in the United States and other countries.

Microsoft, Windows, Windows Vista, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

- The proper names of Internet Explorer 7, 8 and 9 are as follows:

Windows® Internet Explorer® 7

Windows® Internet Explorer® 8

Windows® Internet Explorer® 9

The proper names of the Windows operating systems are as follows:

- The product names of Windows Vista are as follows:

Microsoft® Windows Vista® Ultimate

Microsoft® Windows Vista® Business

Microsoft® Windows Vista® Home Premium

Microsoft® Windows Vista® Home Basic

Microsoft® Windows Vista® Enterprise

- The product names of Windows 7 are as follows:

Microsoft® Windows® 7 Home Premium

Microsoft® Windows® 7 Professional

Microsoft® Windows® 7 Ultimate

Microsoft® Windows® 7 Enterprise

- The product names of Windows 8 are as follows:

Microsoft® Windows® 8

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Microsoft® Windows® 8 Pro

Microsoft® Windows® 8 Enterprise

- The product names of Windows 8.1 are as follows:

Microsoft® Windows® 8.1

Microsoft® Windows® 8.1 Pro

Microsoft® Windows® 8.1 Enterprise

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

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# 1. Product Information

## Specifications

Item	Specification
Interface	<ul style="list-style-type: none"><li>Ethernet: 10BASE-T, 100BASE-TX, 1000BASE-T</li><li>IEEE802.11n, IEEE802.11a, IEEE802.11g, IEEE802.11b</li><li>Encryption method: WEP128bit/64bit, WPA-PSK(TKIP/AES), WPA2-PSK(TKIP/AES), WPA-EAP(TKIP/AES), WPA2-EAP(TKIP/AES)</li><li>USB3.0 (type A) ×2</li><li>USB3.0 (type B)</li><li>Analog RGB (VGA)</li><li>HDMI connector</li></ul>
Proxy authentication	Basic authentication
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: 80, 443</li></ul>
Network bandwidth	<ul style="list-style-type: none"><li>High Definition mode: 1Mbps - 2Mbps</li><li>Standard Definition: 500Kbps - 1Mbps</li><li>Limiting the Network Bandwidth: 300Kbps</li></ul>

Item	Specification
Video resolution	<p>When High Definition mode is enabled:</p> <ul style="list-style-type: none"> <li>Maximum transmission resolution 1280 × 20 pixels</li> <li>Maximum reception resolution 1280 × 720 pixels</li> </ul> <p>When Standard Definition mode is enabled:</p> <ul style="list-style-type: none"> <li>Maximum transmission resolution 640 × 360 pixels</li> <li>Maximum reception resolution 1280 × 720 pixels</li> </ul> <p>When limiting the Network Bandwidth:</p> <ul style="list-style-type: none"> <li>Maximum transmission resolution 320 × 180 pixels</li> <li>Maximum reception resolution 320 × 180 pixels</li> </ul>
Video Frame rate	<p>Up to 30 fps</p> <ul style="list-style-type: none"> <li>Limiting the Network Bandwidth: Up to 15 fps</li> </ul>
Video mode	<p>HDMI:</p> <ul style="list-style-type: none"> <li>XGA : 1024 × 768 pixels (Only RICOH PJS)</li> <li>WXGA : 1280 × 800 pixels (Only RICOH PJS)</li> <li>HD : 1280 × 720 pixels (Others)</li> </ul> <p>D-Sub:</p> <ul style="list-style-type: none"> <li>XGA : 1024 × 768 pixels</li> <li>WXGA : 1280 × 800 pixels</li> </ul>
Video coding	H.264/SVC (SVC)
Voice coding	SPEEX Ultra-Wideband Audio
Data transfer	RTP (RFC1889/RFC3550) and RTCP (RFC1890/RFC3551)

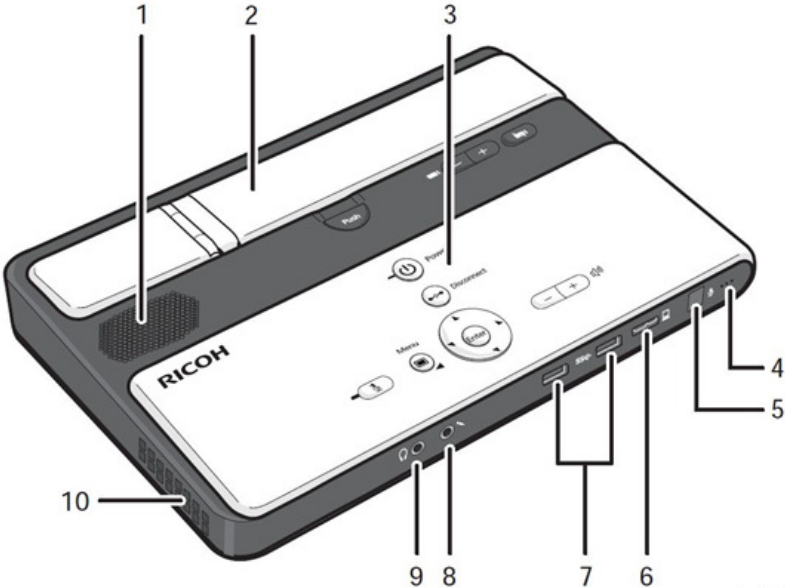
Item	Specification
Automatic camera adjustment	<ul style="list-style-type: none"> <li>• Automatic white balance control</li> <li>• Automatic gain control</li> <li>• Automatic Exposure control</li> <li>• Automatic flickering canceller (50Hz/60Hz)</li> </ul>
Deployment sound function	<ul style="list-style-type: none"> <li>• Adaptive echo canceller</li> <li>• Noise suppressor</li> <li>• Echo suppressor</li> <li>• Automatic gain control</li> <li>• Non-stationary noise reduction function</li> </ul>
Noise	45 dB or less
Power Source	NA: AC120 V ( $\pm 10\%$ ), 15A, 60 Hz ( $\pm 3$ Hz) EU: AC220 (-10%) -240 V (+10%), 2.5A, 50 Hz ( $\pm 3$ Hz) AP: AC110 (-10%) -240 V (+10%), 2.5-15A, 50/60 Hz ( $\pm 3$ Hz)
Power consumption	Maximum 66 W or less
External dimensions (W×D×H)	285.0 × 189.0 × 40.0mm (11.2 × 7.4 × 1.6 inches)
Weight	Approx. 1.6 kg (3.5 lb.)

\* 1 The 6 ports in the range of 50000 to 65535 are selected at random as the ports used for communication, according to the environment and conditions.

# Overview

1

## Front and Top View

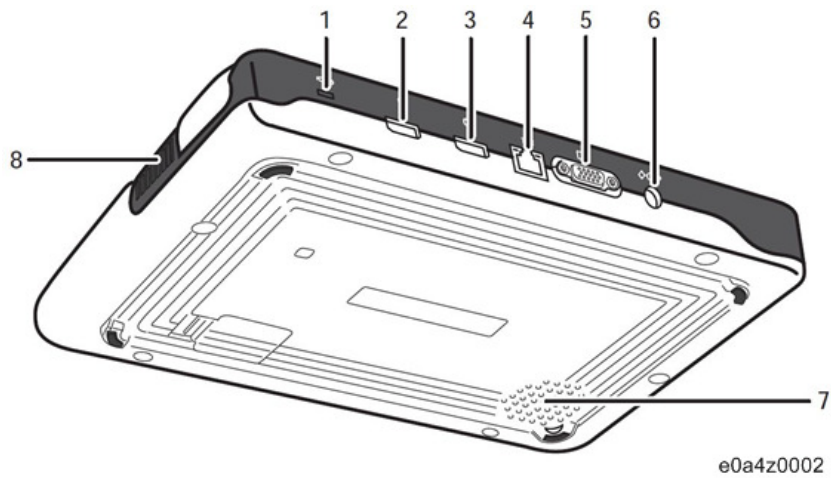


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No.	Name	Main Function
1	Speaker	Outputs audio from other parties.
2	Camera unit	Captures live video that is transmitted to other parties. The camera unit consists of a camera and an arm.
3	Control Panel	Provides a set of keys used to operate the machine.
4	Microphone	Inputs audio from the machine.
5	Remote control light receiver	Receives infrared rays from the remote control.
6	USB port (Micro-B type)	Used to connect the machine to your computer and share the computer screen.
7	USB ports (Type A)	Used to attach an external microphone speaker to the machine.

No.	Name	Main Function
8	Audio input	Used to connect the machine to the analog audio input device, such as a microphone or headset.
9	Audio output	Used to connect the machine to the analog audio output device, such as a headphones or headset.
10	Air outlet	Releases heat from inside of the machine.

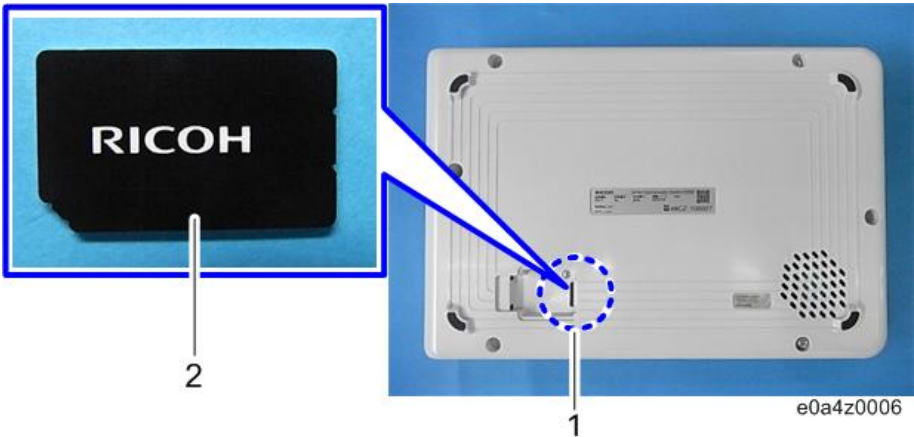
### Rear and Bottom View



No.	Name	Main Function
1	Anti-theft lock hole	Hole for connecting the anti-theft chain.
2	HDMI In connector (for video input)	Used to connect a video input device, such as an external camera, to the machine through the HDMI terminal.
3	HDMI Out connector (for video output)	Used to connect a video output device, such as a projector or monitor, to the machine through the HDMI terminal.
4	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.

No.	Name	Main Function
5	Analog RGB (VGA)connector	Connector used to connect this machine to a video output device, such as a projector or monitor, via a RGB (VGA) connector.
6	Power connector	Connector for connecting the power cord.
7	Air inlet	Brings in air from the outside to cool the machine and prevent it from overheating.
8		

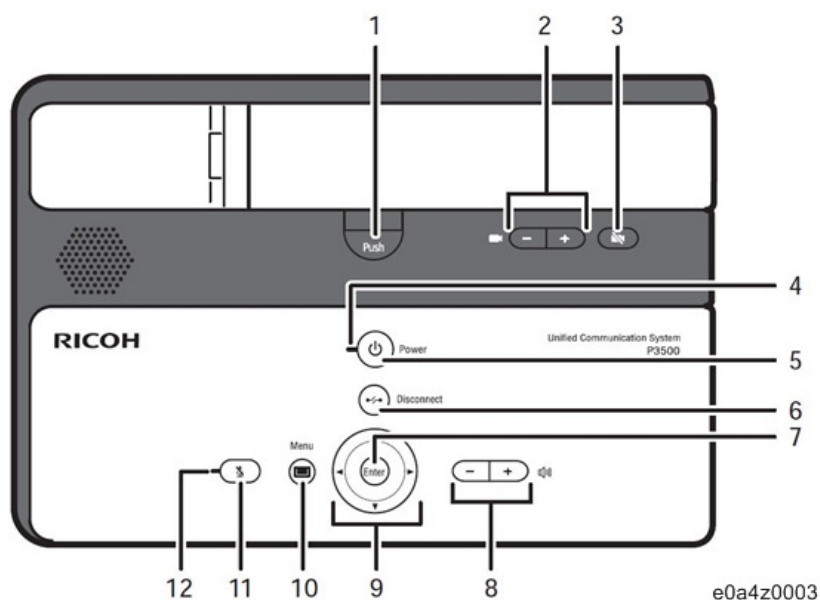
**SIM Card**



No.	Name	Main Function
1	SIM card slot	Slot used to read and write to a SIM card
2	SIM card	<ul style="list-style-type: none"><li>• Used to back up network configuration</li><li>• Used for terminal authentication</li></ul>



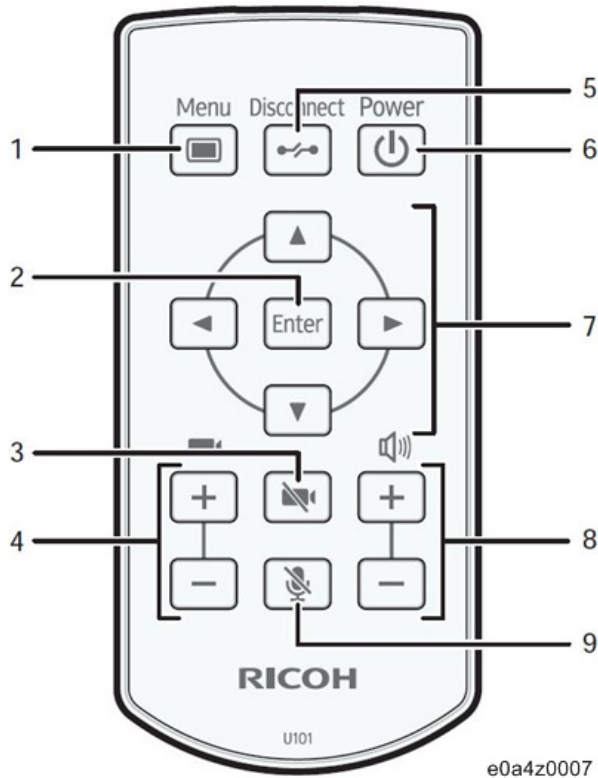
## Control Panel



No.	Name	Main Function
1	Push key	Used to raise the camera unit.
2	Zoom keys (− + key)	Used to adjust the zoom of the machine's camera.
3	Camera OFF key	Used to mute this machine's camera.
4	Power indicator	Lights when the machine turns on. This indicator blinks while the machine is starting up or shutting down.
5	Power key	Used to turn the machine on and off.
6	Disconnect key	Used to leave a meeting.
7	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.
8	Speaker volume keys (− + key)	Used to adjust the speaker volume.

No.	Name	Main Function
9	Cursor keys (▲▼◀▶ key)	Used to select a menu, dialog, or setting. These keys are also used to switch between screen layouts during a meeting.
10	Menu key	Used to display the Menu screen.
11	Mute key	Used to temporarily disable audio input on the machine.
12	Mute indicator	Flashes if the Mute key is used to disable the microphone.

## Remote Control



No.	Name	Main Function
1	Menu key	Used to display the Menu screen.

No.	Name	Main Function
2	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.
3	Camera OFF key	Used to mute this machine's camera.
4	Zoom keys (− + key)	Used to adjust the zoom of the machine's camera.
5	Disconnect key	Used to leave a meeting.
6	Power key	Used to turn the machine on and off.
7	Cursor keys (▲ ▼ ◀ ▶ key)	Used to select a menu, dialog, or setting. These keys are also used to switch between screen layouts during a meeting.
8	Speaker volume keys (− + key)	Used to adjust the speaker volume.
9	Mute key	Used to temporarily disable audio input on the machine.

# Guidance for Those Who are Familiar with Predecessor Products

1

The E0A4 is successor model to the E0A0 and E0A2. If you have experience with the predecessor products, the following information will be of help when you read this manual.

## Different Points from Predecessor Products

	E0A2	E0A0	E0A4
SIM card (only for UCS service, not for mobile network)	Yes	No	Yes
Video resolution	Maximum upload video resolution: 480 x 270  Maximum download video resolution: 640 x 360	Maximum upload video resolution: 640 x 360  Maximum download video resolution: 1280 x 720	Maximum upload video resolution: 1280 x 720  Maximum download video resolution: 1280 x 720
Video frame rate	Up to 10 FPS for upload and download	Up to 30 FPS for upload and download	Up to 30 FPS for upload and download
PC screen sharing frame rate	Up to 1 FPS	Up to 1 FPS	Up to 5 FPS
Video Conference Gateway (interoperability)	No	Yes	Yes
Remote controller	No	No	Yes
Video/audio interface	Analog audio 3.5mm jack  RGB  USB 2.0	DVI  RGB  USB 2.0	Analog audio 3.5mm jack  HDMI  RGB  USB 3.0
Battery	Yes	No	No

## 2. Installation

### Installation Requirements

2

#### Installation Requirements

- 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 power cord 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.

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

Specification	Description
Temperature	<ul style="list-style-type: none"><li>• Operating 10 - 32 °C (50 - 89.6 °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	3,048 m (10,000 feet)

#### Preventing the deterioration of sound quality

- Keep objects that may cause the sound quality to deteriorate away from the microphone or speaker.
- Do not block the microphone and speaker. The sound quality will 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

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- 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 Site 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.

## Solutions

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.

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## Operating Environment for This Machine

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The following operating environments are required to use this machine:

Power Source

Specification	Description
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	Description
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-</li><li>• Wireless Network IEEE802.11n, IEEE802.11a, IEEE802.11g, IEEE802.11b</li></ul>
Line speed	Minimum: 300 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 : 80, 443</li></ul>
Communication frequency	2.4 GHz band, 5 GHz band



Specification	Description
Frequency Range (Wireless Network)	<p>For mainly Europe and Asia:</p> <ul style="list-style-type: none"> <li>2.4 GHz band 2412 MHz - 2472 MHz (Ch1 - Ch13)</li> <li>5 GHz band 5.18GHz 5.24GHz (36, 40, 44, 48ch) 5.26GHz 5.32GHz (52, 56, 60, 64ch) 5.5GHz 5.7GHz (100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140ch)</li> </ul> <p>For mainly North America:</p> <ul style="list-style-type: none"> <li>2.4 GHz band 2412 MHz - 2462 MHz (Ch1 - Ch11)</li> <li>5 GHz band 5.18GHz 5.24GHz (36, 40, 44, 48ch) 5.26GHz 5.32GHz (52, 56, 60, 64ch) 5.5GHz 5.7GHz (100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140ch)</li> </ul>
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" Operating Instruction.

**Analog Audio Input Device**

Specification	Description
Supported device	Microphone, headset, and other devices
Interfaces	Audio input

**Analog Audio Output Device**

Specification	Description
Supported device	Speaker, headset, and other devices
Interfaces	Audio output

**Digital Audio Input/Output Device**

Specification	Description
Supported device	USB microphone speaker
Interfaces	USB3.0 (type A)

**Note**

- You can use the left and right USB ports (A type) on this machine.
- You cannot connect and use an analog audio input/output device and digital audio input/output device 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.

**Video Output Device (Analog RGB/VGA)**

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

If the device you are using supports all the indicated resolutions, a resolution of 1280 × 800 pixels (WXGA) is used to display images and video.

**Video Output Device (HDMI)**

Specification	Description
Supported device	High-definition monitor, projector and other devices
Resolution	XGA: 1024 × 768 pixels (Only RICOH PJS) WXGA: 1280 × 800 pixels (Only RICOH PJS) HD: 1280 × 720 pixels (720p)(Others)
Interfaces	HDMI (type A)

**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 display images from this machine correctly.
- A video output device only outputs video.
- An analog RGB (VGA) interface and HDMI interface cannot be used to connect to multiple video output devices at the same time.

**Video Input Device**

Specification	Description
Supported device	USB camera
Interfaces	HDMI (type A), USB3.0 (type A)


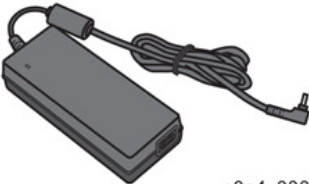


**Note**

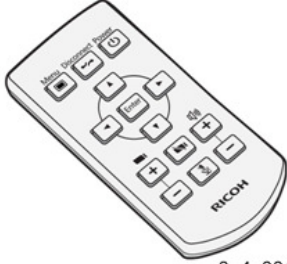

- Only video is input from a video input device. If the camera has a microphone, the microphone is disabled.

# Checking the Package Contents

The product package contains the following items:

Package Contents

Unified Communication System P3500 (this machine)	 e0a4z0008
AC adapter	 e0a4z0009
Power plug NA: Type A EU: Type C, BF, O, A	 e0a4z0010
USB cable	 e0a4z0011

Package Contents	
Remote Control	 e0a4z0012
Carry Bag	 e0a4z0013
Quick Guide	
Read This First	
Other documents	
SIM card (Pre-installed in the machine)	

#### **Note**

- Use the USB cable to share your computer screen
- Be sure to use the power cord set and USB cable that come with this machine.
- This machine is factory-shipped with a protective sheet covering the camera lens. Remove the protective sheet from the lens before using the camera.
- When this machine is not being used, store it together with the other accessories (including the power cord set and USB cable) in the supplied bag. Do not store any other items in the supplied bag.
- When placing this machine in the supplied bag, be sure to remove all cables and the power cord set.

# Contact Address Registration

Before having a meeting, you need to register the contact of the other party in Address Book in Unified Communication System Settings.

Before registering a new contact in Address Book, you need to obtain permission from the party whose contact you want to register. Send a registration request to that individual and obtain permission to register the contact in Address Book.

1. **Log in to Unified Communication System Settings with Contact ID and password (default is the serial number of the machine) (<https://ucs.ricoh.com/util/login>).**
2. **Click "Address Book".**
3. **Click "Register New Contact".**
4. **Click the "Contact ID" field, and then enter the Contact ID of the contact you want to register.**
5. **Click the "Name" field, and then enter the name of the contact you want to register.**  
The machine name can be up to 100 characters in length.
6. **Click "Send Registration Request".**

"Registration Request" appears at the top of Address Book if the request is successfully sent.

When the request is accepted by the other party, their contact is added to Address Book.

To cancel the registration request, click "Cancel".

## Note

- The maximum number of entries in Address Book is 200. This number includes the number of registration requests waiting to be accepted.

# Using the Menus

This screen is used to accept registration requests, configure network settings, update firmware, and check the system information.

When the Menu screen is displayed, the machine's status switches to "Offline". You cannot connect to or receive connection from contacts when the machine's status is "Offline".

2

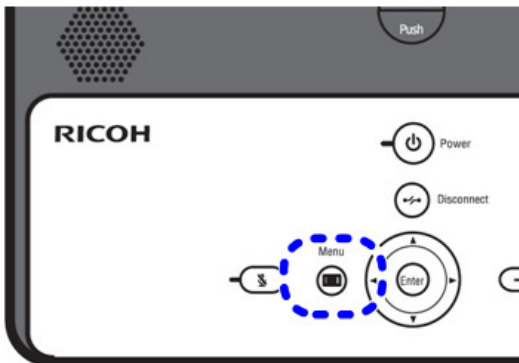
## Registration Request List

1. In the Features screen, press the ◀ or ▶ key to select "Video Meeting", and then press the Enter key.



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2. Press the Menu key. If the Site List screen is displayed, proceed to step4.



e0a4z0004

- Press the ▼ or ▲ key to select "Registration Request List", and then press the Enter key.



e0a4z0014

- Press the ▼ or ▲ key to select the contact you want to accept, and then press the Enter key.
- Press the ▼ or ▲ key to select "Accept", and then press the Enter key.
- Press the ▼ or ▲ key to select "Accept", and then press the Enter key. The accepted contact is added to Address Book.

#### ↓ Note

- To decline the registration request, press the ▼ or ▲ key to select "Decline", and then press the Enter key. in step 3.
- To cancel the operation, press the ▼ or ▲ key to select "Cancel", and then press the Enter key.

## Wired/Wireless Network Configuration

- In the Features screen, press the ◀ or ▶ key to select "Configuration Menu", and then press the Enter key.

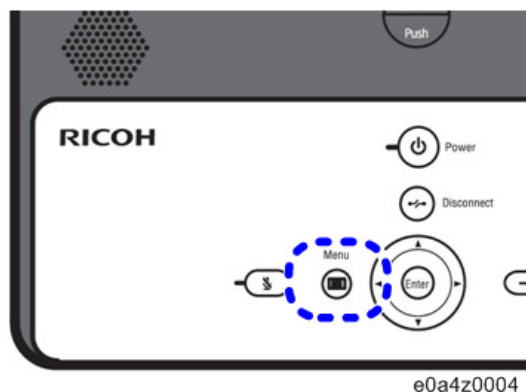


e0a4z0018



### ↓ Note

- Press the Menu key if the Site List screen is displayed, and then press the ▼ or ▲ key to select "Configuration Menu" in the Menu screen.



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- In the Configuration Menu, Press the ▼ or ▲ key to select the "Wired Network Configuration" or "Wireless Network Configuration", and then press the Enter key.



e0a4z0015

### ↓ Note

- If the Configuration Menu screen is displayed, the machine's status switches to "Offline".
- Press the ▼ or ▲ key to select setting you want to change, and then press the Enter key.
  - Press the ▼ or ▲ key to change the setting, and then press the Enter key.
  - Press the ▼, ▲, or ► key to select "OK", and then press the Enter key if you finish specifying the settings.

If the machine needs to be restarted, a message will appear instructing you to do so. Follow the instructions given in the message to restart the machine.

## Entering characters

Certain settings require you to enter characters.

A character input screen appears when characters need to be entered.

### Available Characters

You can enter the following characters:

- Alphabetic characters
- Symbols
- Numerals

### Character Input Screens

There are two types of character input screens: the alphanumeric input screen, and the numeric input screen.

The screen that appears depends on the setting.

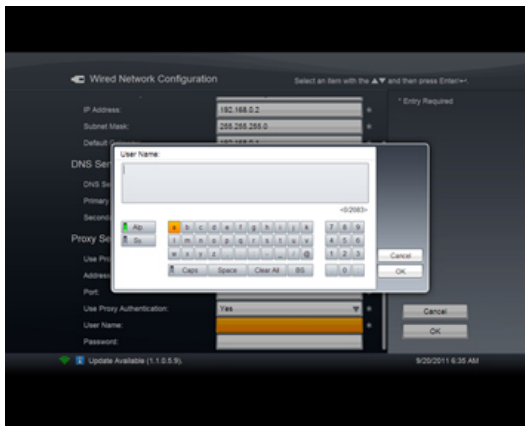
- Alphanumeric input screen

This screen allows you to enter alphanumeric characters and symbols.

You can switch between "Alp." and "Sy." for the keyboard layout.

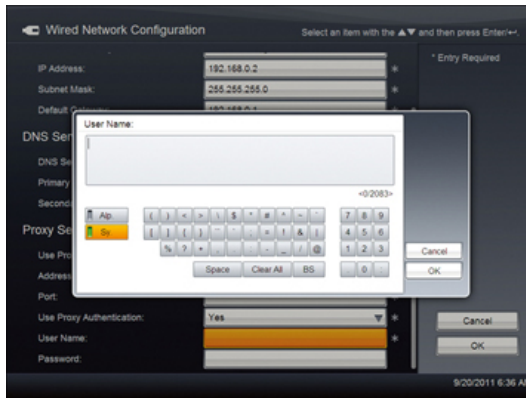
- Alp.

Switches to the alphanumeric key and symbol key layout.

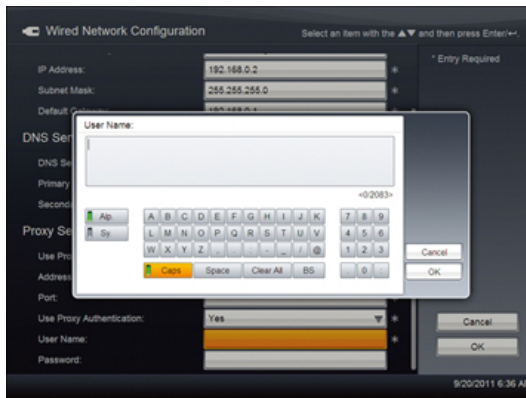


- Sy.

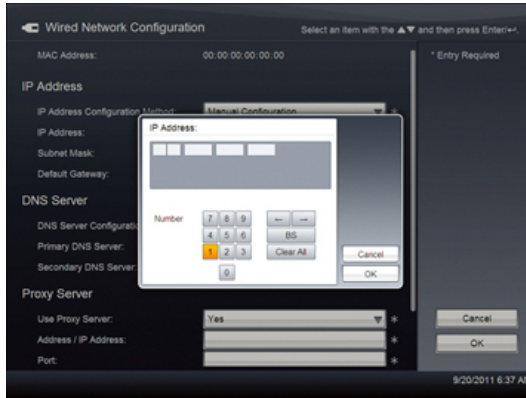
Switches to the symbol key and numeric key layout.



- Caps  
Switches between upper-case and lower case alphabetic characters.



- Space  
Enters a space.
- Clear All  
Clears all the entered characters.
- BS  
Deletes one character to the left of the cursor.
- Numeric input screen  
This screen allows you to enter numeric characters.



- ←→  
Moves the cursor to the left or right. If the cursor is moved and then a character is entered, the character is inserted to the left of the cursor.
- BS  
Deletes one character to the left of the cursor.
- Clear All  
Clears all the entered characters.

### How to Enter Characters

1. Press the cursor keys (▼▲◀▶ keys) to select the character you want to enter, and then press the Enter key.
2. When you are finished entering characters, press the ▶ key to select "OK", and then press the Enter key.

## Setting Items

Wired Network Configuration or Wireless Network Configuration contains the following settings that can be configured.

### SSID (Wireless Network Configuration only)

Specify the SSID that identifies the wireless LAN network.

The SSID can be up to 32 alphanumeric characters and symbols in length.

The SSID is case-sensitive.

### Authentication Method (Wireless Network Configuration only)

Specify the authentication method for the wireless LAN.

- Network Authentication
- Encryption Method

- Encryption Key Character Set
- Encryption Key
- Key Index

If "Encryption Method" is set to WEP, specify the key index.

## IP Address

Specify the IP address, subnet mask, and default gateway settings for the machine on the network.

- IP Address Configuration Method
- IP Address
- Subnet Mask
- Default Gateway

If "IP Address Configuration Method" is set to Manual Configuration, enter the IP address, subnet mask, and default gateway.

## DNS Server

Specify the DNS server.

- DNS Server Configuration Method
- Primary DNS Server
- Secondary DNS Server

If "DNS Server Configuration Method" is set to Manual Configuration, enter the IP address of the DNS server.

If "IP Address Configuration Method" for "IP Address" is set to Manual Configuration, you cannot set "DNS Server Configuration Method" for "DNS Server" to Auto-Obtain.

## Proxy Server

Configure the proxy server.

- Use Proxy Server
- Address / IP Address
- Port
- Use Proxy Authentication
- User Name
- Password

If "Use Proxy Server" is set to Yes, enter the IP address or the host name and port number of the proxy server.

If "Use Proxy Authentication" is set to Yes, enter the user name and password.

This machine only supports Basic authentication as proxy authentication.

## Firmware Update

### ★ Important

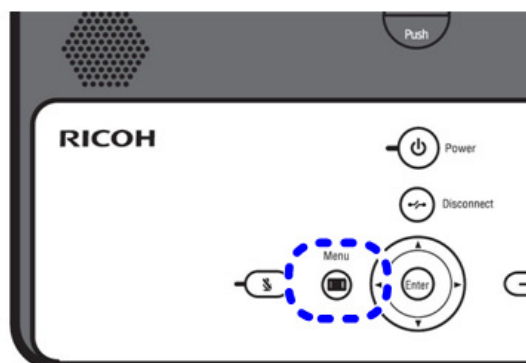
- Do not press and hold the Power key or remove the power cord during update.
  - If connection with the network is lost during an update, the update will fail. We recommend performing the update in a wired network environment.
  - If a required firmware update is detected when the machine starts, the firmware update screen will appear automatically. If this happens, 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.
1. In the Features screen, press the ◀ or ▶ key to select "Configuration Menu", and then press the Enter key.



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### ↓ Note

- Press the Menu key if the Site List screen is displayed, and then press the ▼ or ▲ key to select "Configuration Menu" in the Menu screen.



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2. In the Configuration Menu, press the ▼ or ▲ key to select the "Firmware Update", and then press the Enter key.



3. Press the ▼ or ▲ key to select "Update", and then press the Enter key.
4. Press the ▼ or ▲ key to select "Update", and then press the Enter key.

The machine automatically restarts and begins the update.

When updating the firmware to a version that is two levels higher or more, the update process repeats until the all update are complete.

To abort an update, select "Cancel" and then press the Enter key. Wait until the update has finished aborting before turning the machine off.

5. When the update is complete, press the ▼ or ▲ key to select "Turn Off" or "Restart", and then press the Enter key.

If you want to use the machine after the firmware update is complete, you must restart the machine.

## System Information

### ★ Important

- The Contact ID and UI version do not appear if the machine is not connected to a network, or if it cannot connect to the service.



### 1. Machine Information

- **Model Name**  
Displays the model name of the machine.
- **Contact ID**  
Displays the Contact ID of the machine.
- **Firmware Version**  
Displays the current firmware version.
- **UI Version**  
Displays the current UI version.

### 2. Network

- **Wired Network MAC Address**  
Displays the MAC address of the machine when it is connected to a wired network.
- **Wireless Network MAC Address**  
Displays the MAC address of the machine when it is connected to a wireless network.

### 3. Product Information

- **Web Site URL**  
Displays the URL of the Unified Communication System home page.
- **Legal Notices**  
You can view the copyright information for the software applications installed on this machine.
- **Send a Report**  
If there is a problem with the machine, send the operation log, system information, and other details about the machine to Ricoh for problem diagnosis. Only send a report when requested to do so by the support desk.
- **Save and Restore Configuration with the Card**  
Do not use this feature normally.  
Only use this feature when requested to do so by the support desk. Follow the instructions given by the support desk to use this feature.



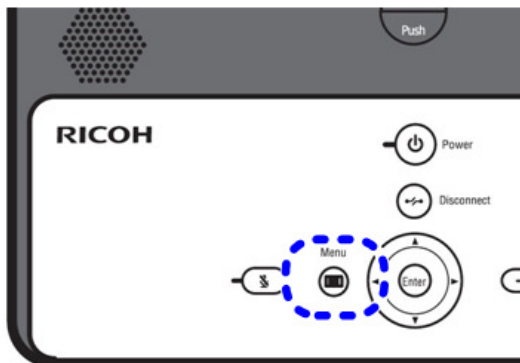
1. In the Features screen, press the ◀ or ▶ key to select "Configuration Menu", and then press the Enter key.



e0a4z0018

#### Note

- Press the Menu key if another screen is displayed, and then press the ▼ or ▲ key to select "Configuration Menu" in the Menu screen.



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2. In the Configuration Menu, press the ▼ or ▲ key to select the "System Information", and then press the Enter key.



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### 3. Check the system information.

If you want to check the legal notices, press the ◀ key to select "Legal Notices", and then press the Enter key.



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### 4. After checking the system information, make sure that "Close" is selected, and then press the Enter key.

If "Legal Notices" is selected, press the ▶ key to select "Close", press the Enter key.

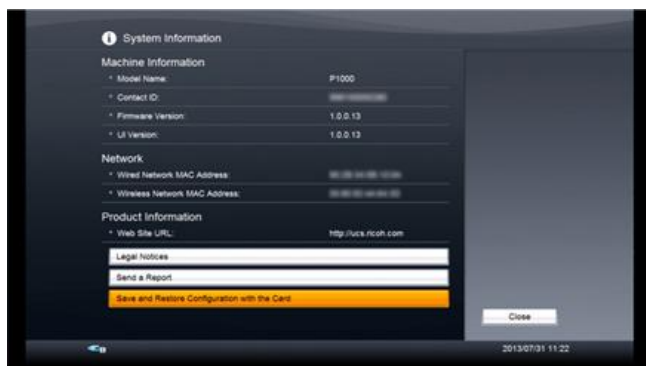
## Network configuration backup/restore

### ↓ Note

- If an attempt is made to restore the settings from a SIM card which contains no configuration backup, the existing configuration in the main unit will be cleared.

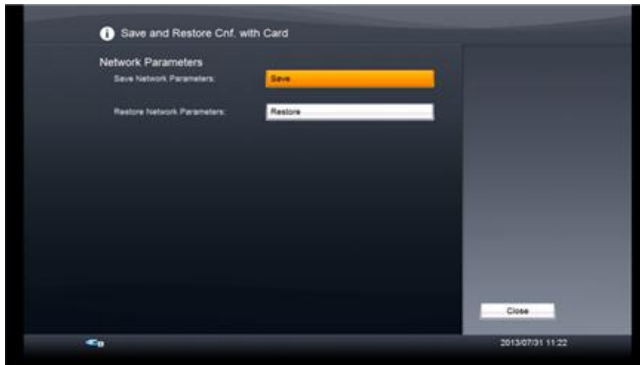
### Network configuration backup

- In the System Information screen, select "Save and Restore Configuration with the card" and press the Enter key.



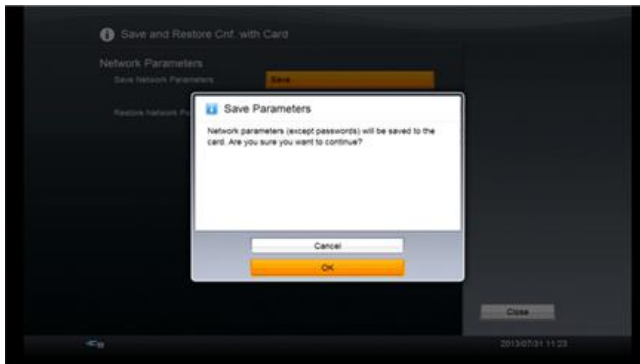
e0a2r2100

2. Select "Save" and press the Enter key.



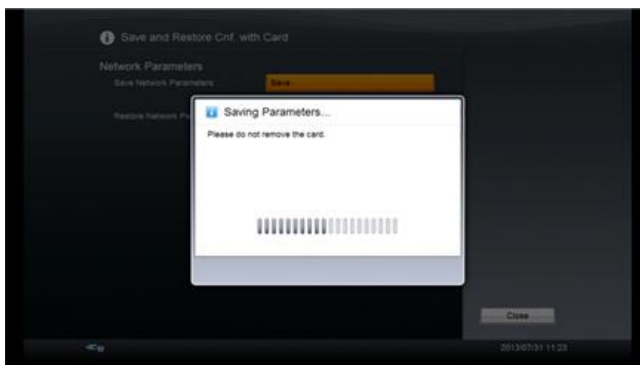
e0a2r2101

3. When the confirmation dialog box appears, select "OK" and press the Enter key.



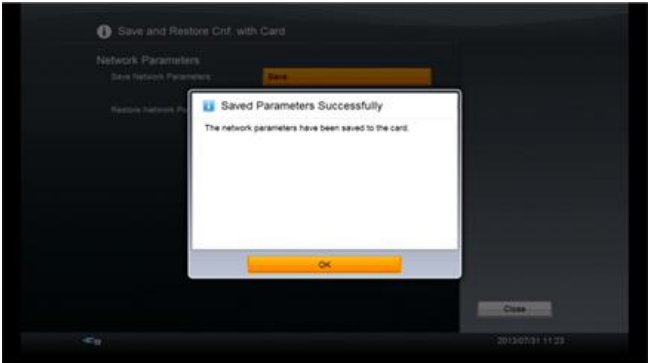
e0a2r2102

4. The dialog box appears, indicating that the backup is in progress.



e0a2r2103

5. When the backup completion dialog box appears, press the Enter key.



e0a2r2104

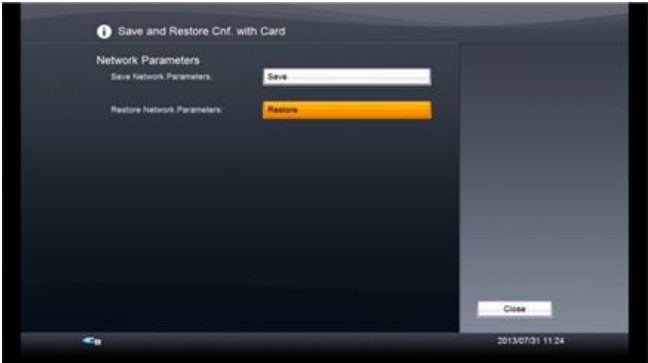
Network configuration restore

1. In the System Information screen, select "Save and Restore Configuration with the card" and press the Enter key.



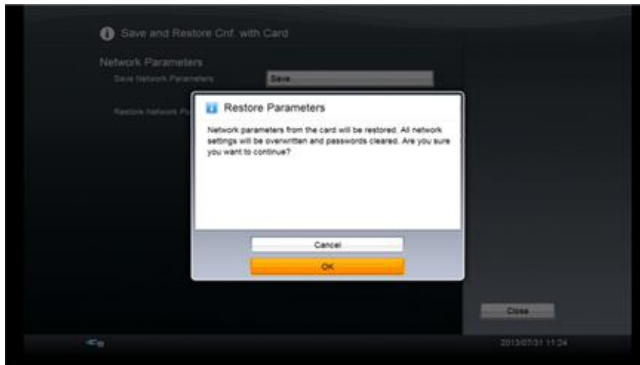
e0a2r2100

2. Select "Restore" and press the Enter key.



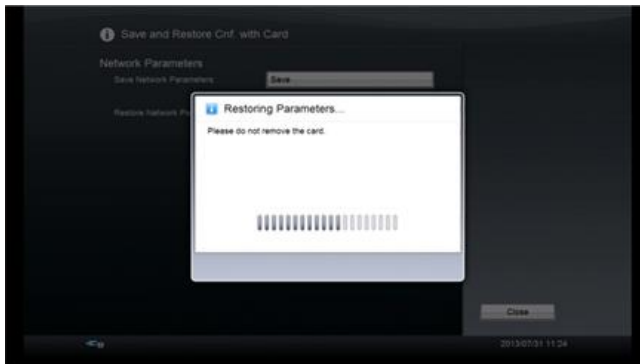
e0a2r2105

3. When the confirmation dialog box appears, select "OK" and press the Enter key.



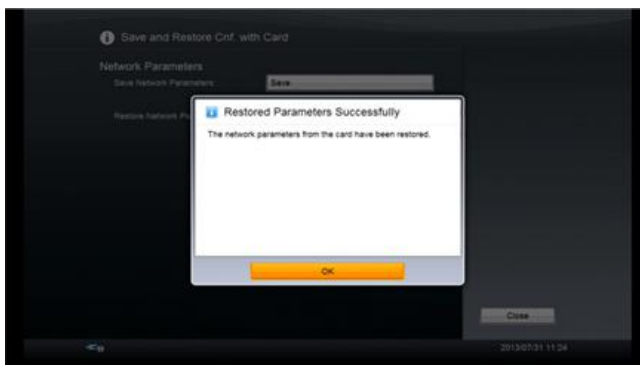
e0a2r2106

4. The dialog box appears, indicating that the backup is in progress.



e0a2r2107

5. When the backup completion dialog box appears, press the Enter key.



e0a2r2108

# Using Utility

To manage Address Book or check Meeting History in Unified Communication System Settings, you must first log in to Unified Communication System Settings.

Unified Communication System Settings can be accessed from a computer that is connected to Internet.

**Note**

- Unified Communication System Settings can be accessed without needing to turn on the machine.

## Unified Communication System Settings

The following environment is required to access Unified Communication System Settings:

Specification	Operating environment
Computer	PC/AT-compatible machine
CPU	Pentium M 1.2 GHz or higher
Memory	512MB or higher
HDD	100 MB or more of free space

Specification	Operating environment
OS	<ul style="list-style-type: none"> <li>Windows Vista (Service Pack 2 or later) <ul style="list-style-type: none"> <li>Windows Vista Home Basic</li> <li>Windows Vista Home Premium</li> <li>Windows Vista Business</li> <li>Windows Vista Enterprise</li> <li>Windows Vista Ultimate</li> </ul> </li> <li>Windows 7 <ul style="list-style-type: none"> <li>Windows 7 Home Premium</li> <li>Windows 7 Professional</li> <li>Windows 7 Enterprise</li> <li>Windows 7 Ultimate</li> </ul> </li> <li>Windows 8 <ul style="list-style-type: none"> <li>Windows 8</li> <li>Windows 8 Pro</li> <li>Windows 8 Enterprise</li> </ul> </li> <li>Windows 8.1 <ul style="list-style-type: none"> <li>Windows 8.1</li> <li>Windows 8.1 Pro</li> <li>Windows 8.1 Enterprise</li> </ul> </li> </ul>
Resolution	XGA (1,024 × 768 pixels) or higher 64,000 colors or more (recommended)
Web browser	Internet Explorer 7, 8 or 9 Firefox 3.6 or later

Specification	Operating environment
Security settings	<p>The following security settings must be enabled on your Web browser:</p> <ul style="list-style-type: none"><li>• Scripting Active scripting</li><li>• ActiveX controls and plug-ins Run ActiveX controls and plug-ins Script ActiveX controls marked Safe for scripting Binary and Script behaviors</li><li>• Downloads File downloads</li></ul>

## Logging in to Unified Communication System Settings

To manage Address Book or check Meeting History in Unified Communication System Settings, you must first log in to Unified Communication System Settings.

Unified Communication System Settings can be accessed from a computer that is connected to Internet.

### Login

1. Start your Web browser.
2. Enter the following URL in the address bar of your web browser to access Unified Communication System Settings.

<https://ucs.ricoh.com/util/login>



The screenshot shows the login interface of the RICOH Unified Communication System. At the top, the title bar reads "RICOH Unified Communication System Device Management Settings" with a "Help" icon on the right. Below this is a dark header with the text "Unified Communication System". The main area contains a "Login" section with a "Language" dropdown menu set to "English". There are two input fields: "Contact ID:" and "Password:". Below these fields is a "Login" button. At the bottom left, there is a copyright notice: "Copyright © 2011 Ricoh Company, Ltd. All rights reserved."

2

3. Select the Language.
4. Enter the Contact ID and the password (default is the serial number of the machine).
5. Click "Login".

## Logout

1. Click "Logout".

The screenshot shows the home page of the RICOH Unified Communication System after a successful login. The title bar reads "RICOH Unified Communication System Device Management Settings" with "Contact ID: 000000000000" and "Contact" on the left, and "Help" and "Logout" on the right. Below the title bar is a "Home" link with a house icon. The main area contains three large buttons: "Address Book" (with a person icon), "Meeting History" (with a calendar icon), and "Device Settings" (with a gear icon). Each button has a brief description of its function.

# Managing Address Book

Address Book in Unified Communication System Settings is used to manage the contacts whom you want to have meetings.

The contacts registered in Address Book are synchronized with the contacts in the Contact List on the machine. When starting a meeting from the machine, you can only connect to a contact registered in Address Book.

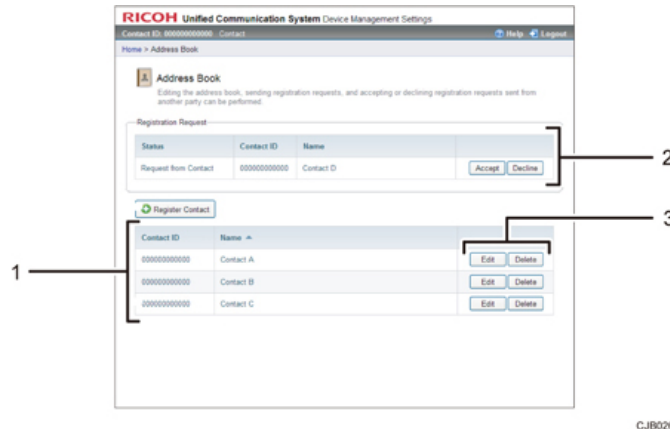
Address Book allows you to send a request to register a contact, accept registration requests from other contacts, change the names of registered contacts, and delete contacts that are no longer necessary.

The Contact ID and name of a contact is registered in Address Book as the contact information.

Contact names are used for Address Book and the machine only.

The maximum number of contact entries in Address Book is 200. This number includes the number of registration requests waiting to be accepted.

## Address Book screen



CJB026

### 1. List of registered contacts

Displays a list of registered contacts.

To sort rows by ID number, click the table column header "Contact ID". To sort rows by reading order, click "Name". Rows are sorted in alphabetical order by default.

### 2. Registration requests

Displays both the contacts that have sent registration requests and the registration requests that have been received.

Any registration request that has not been received or sent will not displayed.

### 3. Edit/Delete

Used to edit or delete registered contacts.

# 3. Replacement and Adjustment

## Parts Replacement

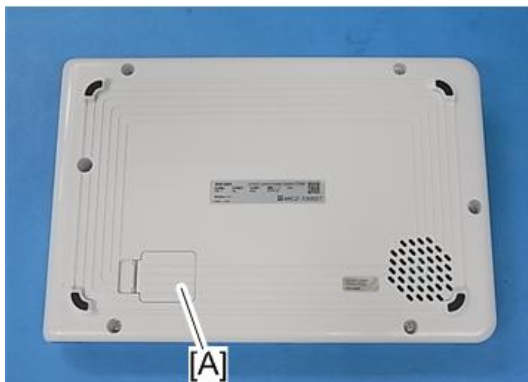
### ★ Important

- Please never attempt to remove the battery from the main board. If you removed, you can not repair the failure.
- If main board failure occurred, the device must be swapped as the main board can not be replaced.

3

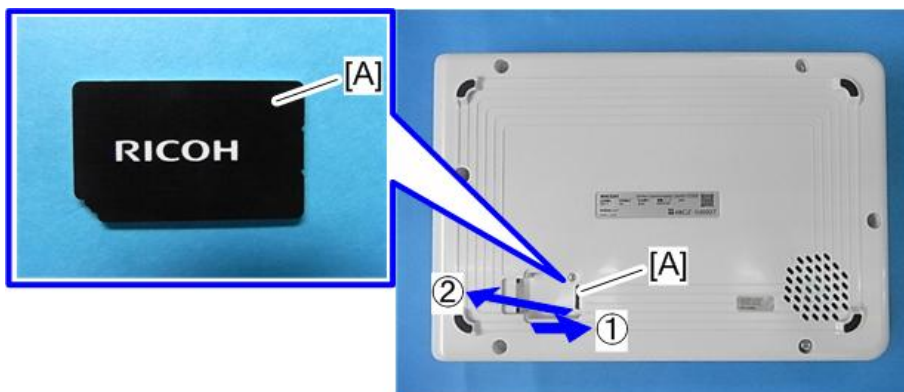
### SIM Card

1. Open the SIM card slot cover [A].



e0a4z1035

2. SIM Card [A].



e0a4z1036

**Note**

- Push the SIM card, and then pull it.

## Rear Cover

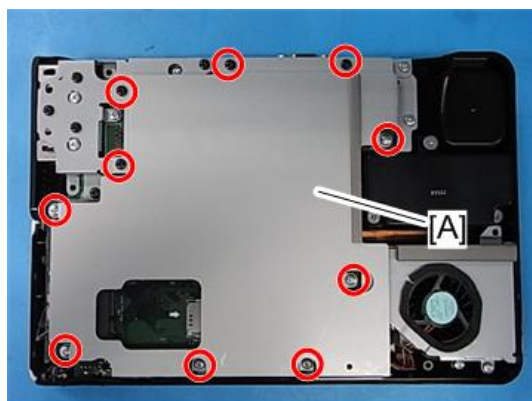
1. SIM card (page 49).
2. Rear cover [A] (🔩 M3×10 Tapping screw×6, screw×1).



e0a4z1002

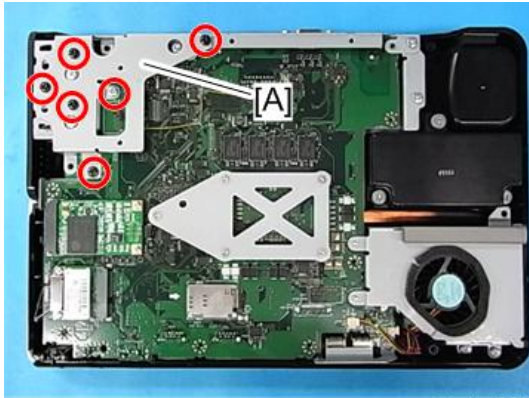
## Camera Unit

1. Rear cover (page 50).
2. Remove the bracket [A] (🔩 M3×6 Screw×6, M3×4 Screw×4).



e0a4z1003

3. Remove the bracket [A] (⌚ M3×6 screw×1, M3×4 Screw×5).



e0a4z1005

4. Remove the right cover [A].



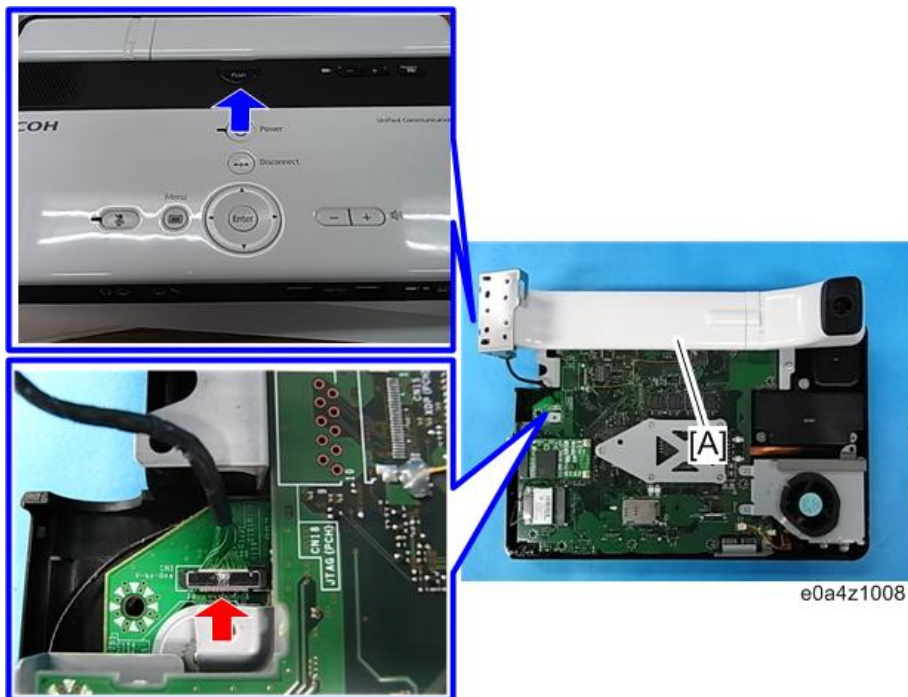
e0a4z1006

5. Remove the screws (⌚ M3×10 Tapping screw×2).



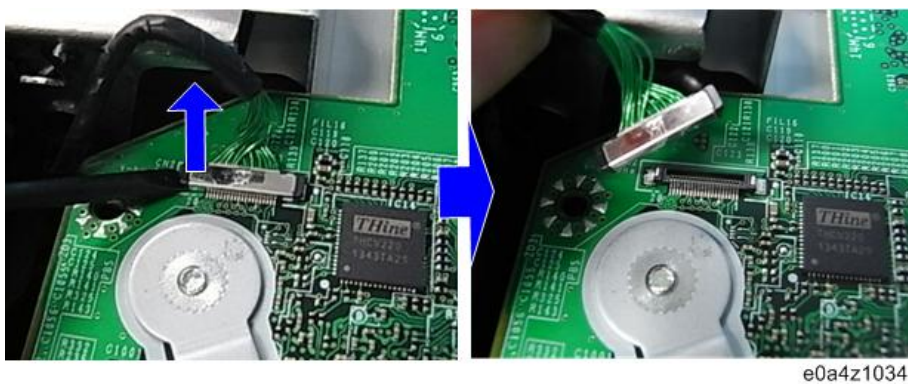
e0a4z1007

6. Push the “Push” button and remove the Camera unit [A] (📦 ×1).



↓ Note

- When removing the connector, lift the connector by a jeweller's screwdriver.

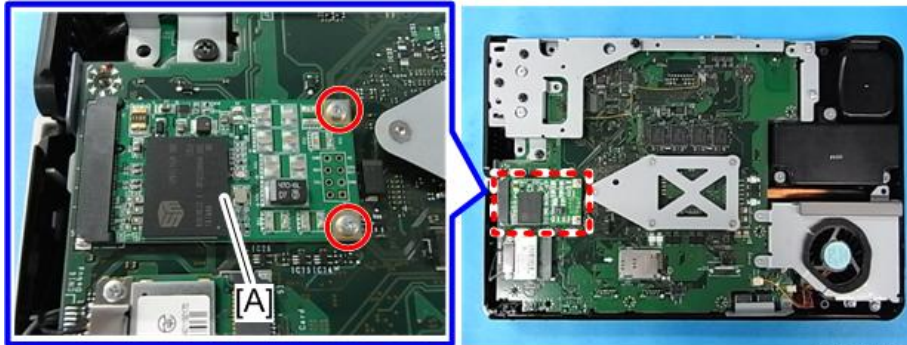


## Memory Card

1. Remove the bracket (page 50).

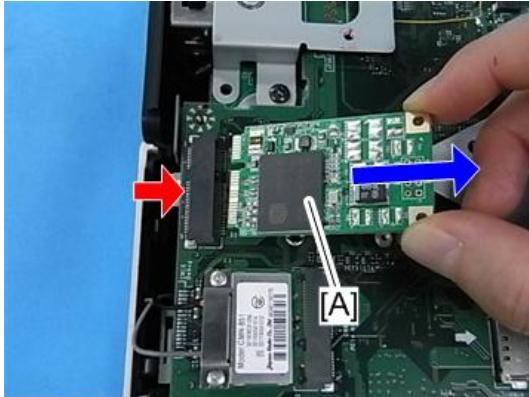


2. Remove the screws of the memory card [A] (🔩 ×2).



e0a4z1009

3. Remove the memory card [A] (🔧 ×1).



e0a4z1010

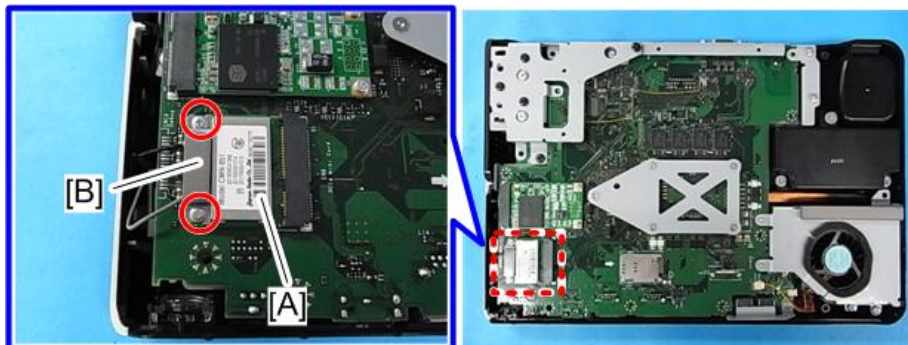
## Fan Unit / Main Board

### ★ Important

- If main board failure occurred, the device must be swapped as the main board can not be replaced.

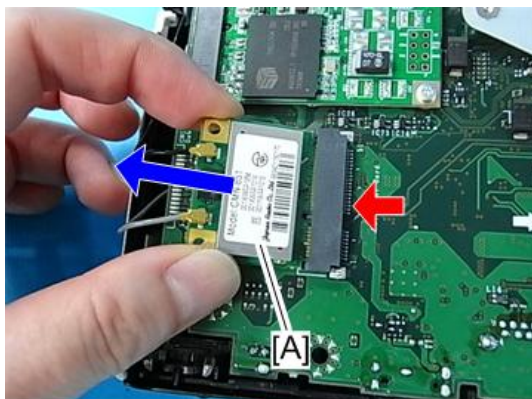
1. Remove the bracket (page 50).

2. Remove the cover [B] of the LAN card [A] (⚙️×2).



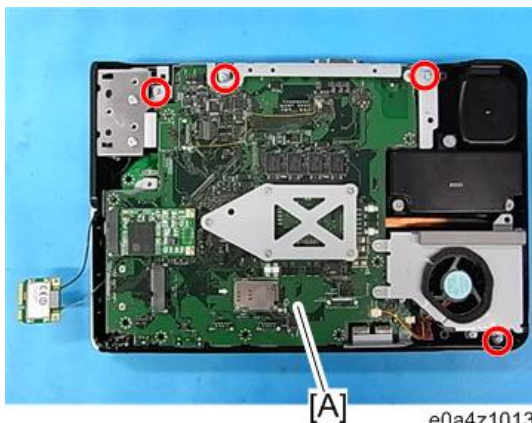
e0a4z1011

3. Remove the LAN card [A] (🔧×1).



e0a4z1012

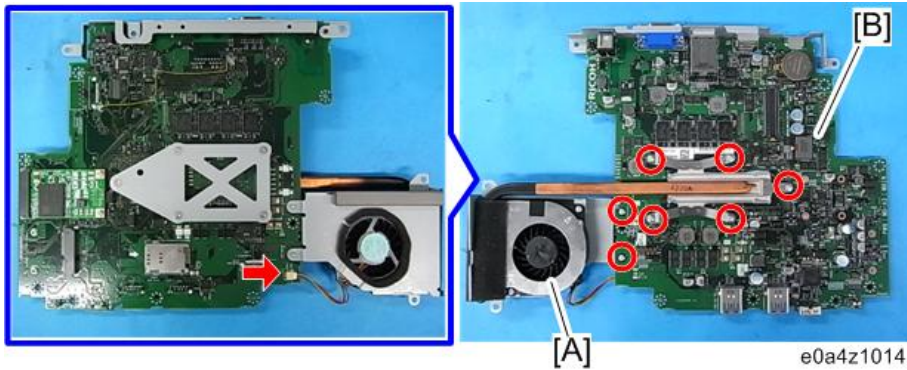
4. Remove the main board assembly [A] (⚙️ M3×10 Tapping screw×3, M3×6 screw×1).



e0a4z1013



5. Remove the fan unit [A] from the main board [B] (⚙️ ×7, 📦 ×1).

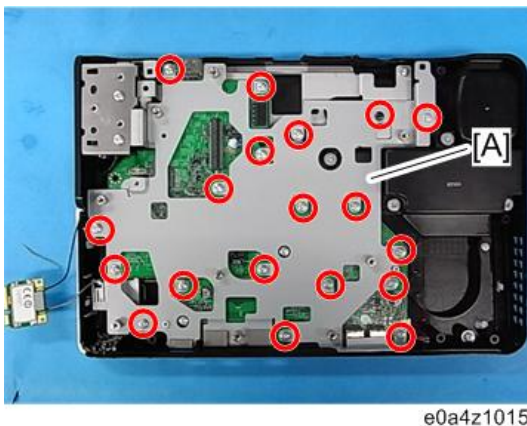


★ Important

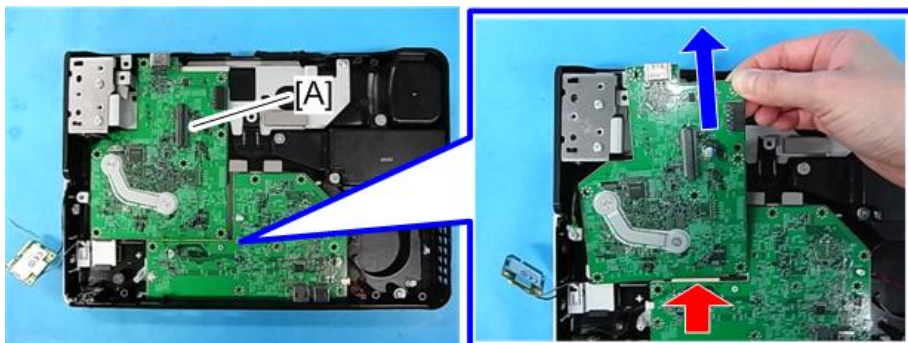
- Please never attempt to remove the battery from the main board. If you removed, you can not repair the failure.

## Microphone

1. Remove the main board assembly (page 53).
2. Remove the bracket [A] (⚙️ M3×10 Tapping screw×17, M3×6 Screw×1, M3×4 Screw×1).

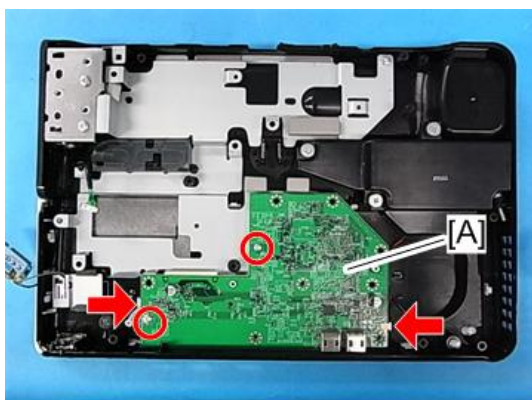


3. Remove the image board [A] (📦 ×1).



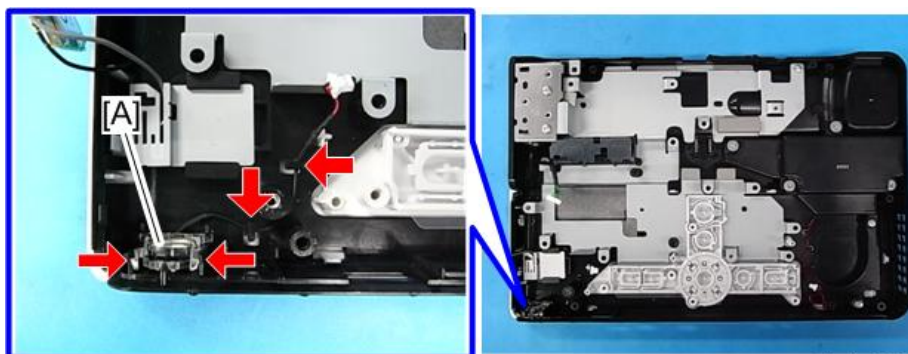
e0a4z1016

4. Remove the audio board [A] (🔩 M3×10 Tapping screw×2, 📦 ×2).



e0a4z1018

5. Remove the microphone [A] (hook×4).



e0a4z1019

**⚠ CAUTION**

- The microphone harness is thin. When removing the microphone, make sure to hold the microphone by the connector section.

## Speaker

1. Remove the image board (page 55).
2. Remove the speaker [A] (🔩 Tapping screw×4, 📦 ×1, hook×3).

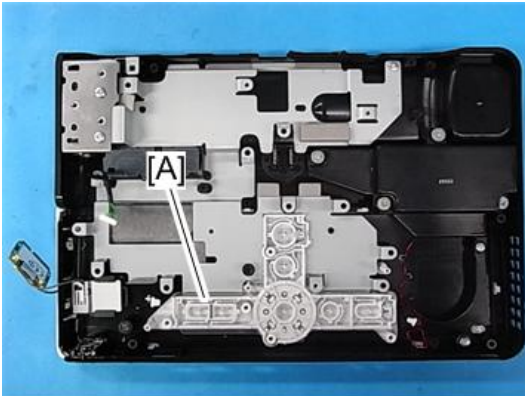


e0a4z1017

3

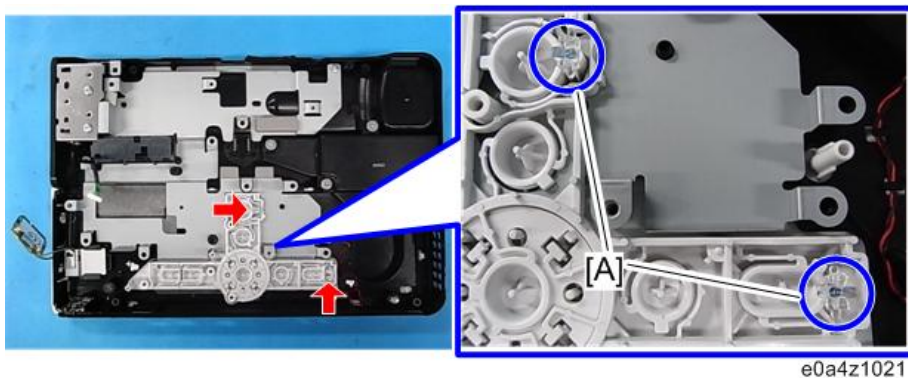
## Key Top Unit

1. Remove the audio board (page 55).
2. Remove the protector film [A].

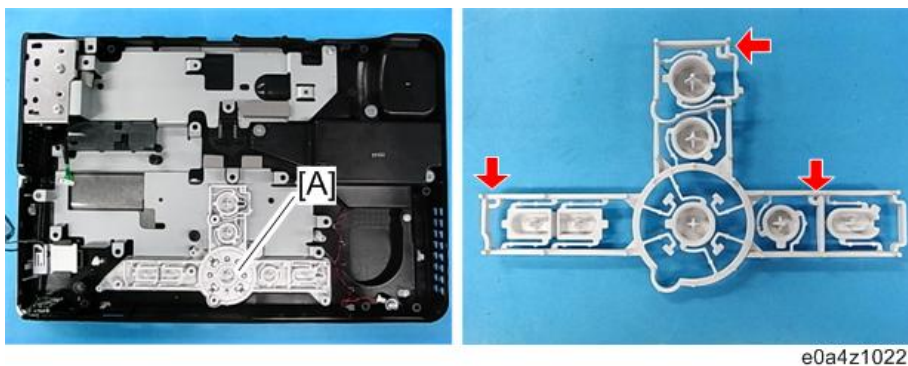


e0a4z1020

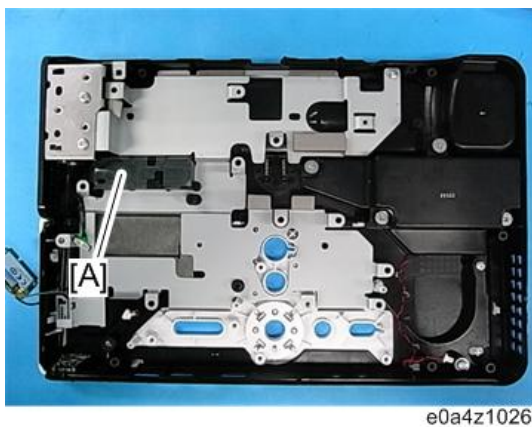
3. Remove the lenses [A].



4. Remove the key top [A] (hook×3).



5. Remove the protector film [A].

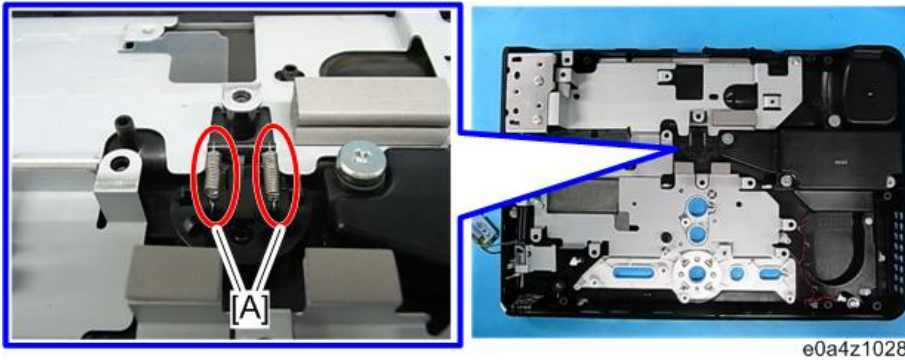




6. Remove the key top [A].



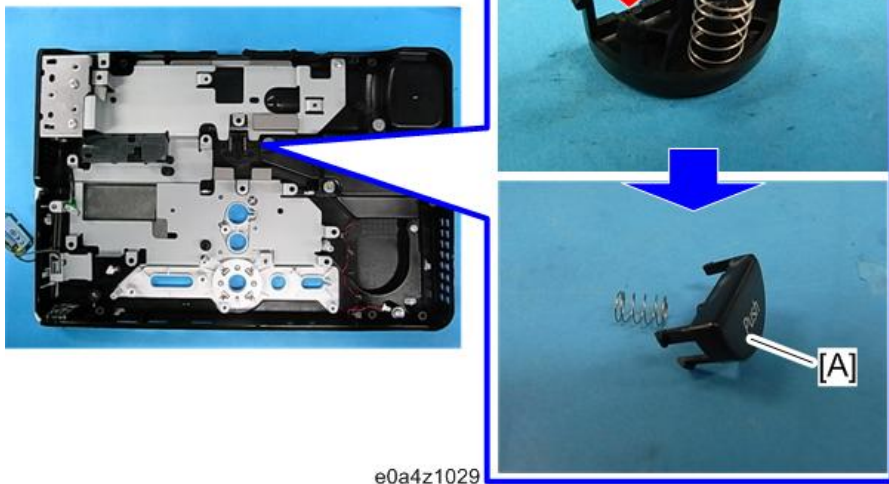
7. Remove the springs [A] (🌀×2).



⬇ Note

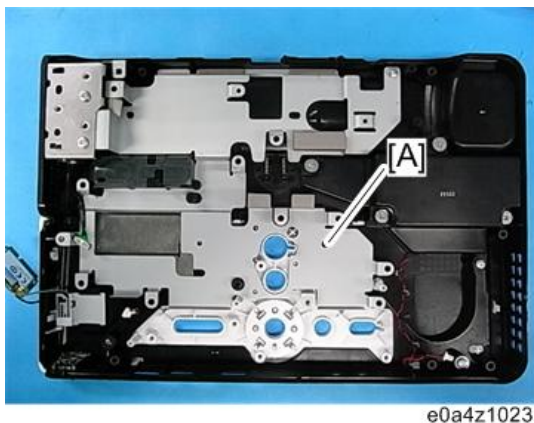
- Take care not to lose these springs.

8. Remove the button [A] (hook×4, ×1).

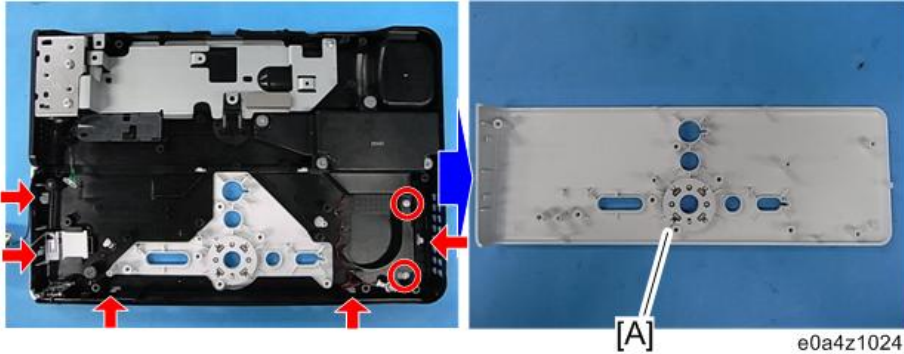


## Front Cover

1. Remove the key top (page 57).
2. Remove the bracket [A].



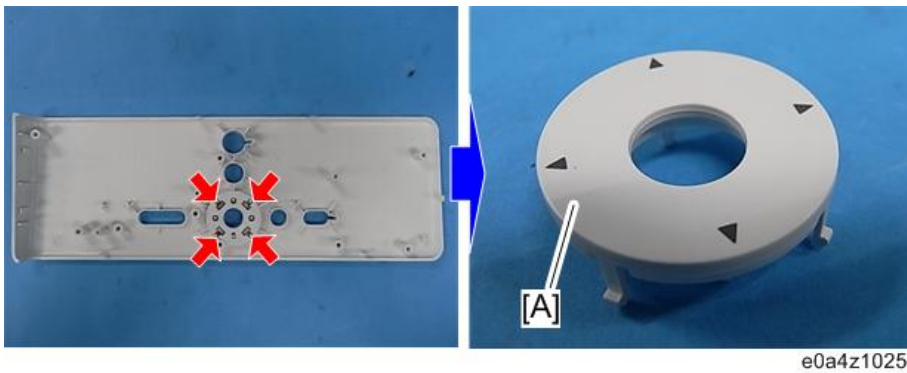
3. Remove the front cover [A] (⚙ M3×10 Tapping screw×2, hook×5).



3

## Front Cover Parts

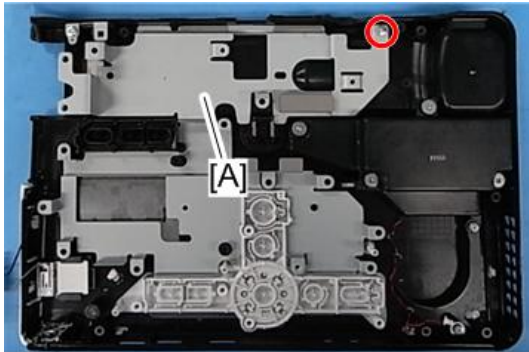
1. Front cover (page 60).
2. Remove the part [A] (hook×4).



## Antenna Module

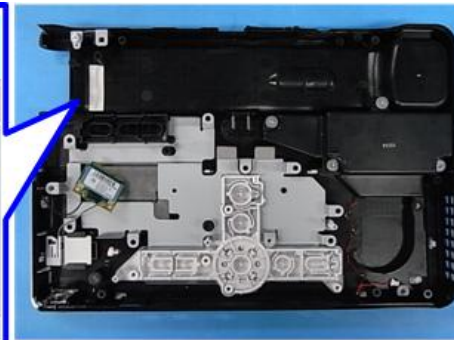
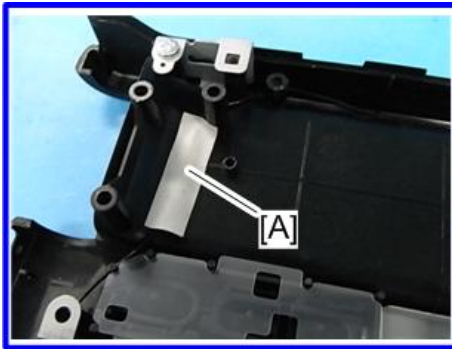
1. Camera Unit (page 50).
2. Remove the audio board (page 55).

3. Remove the bracket [A] (⌀ M3×10 Tapping screw×1).



e0a4z1030

4. Remove the tape [A].

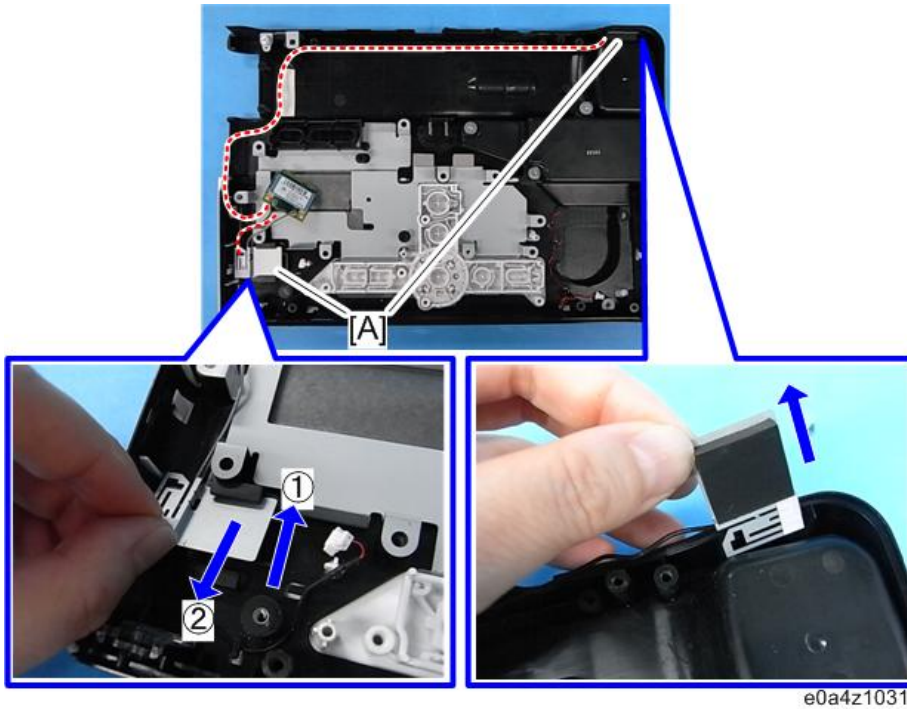


e0a4z1032

5. Remove the antenna modules [A].

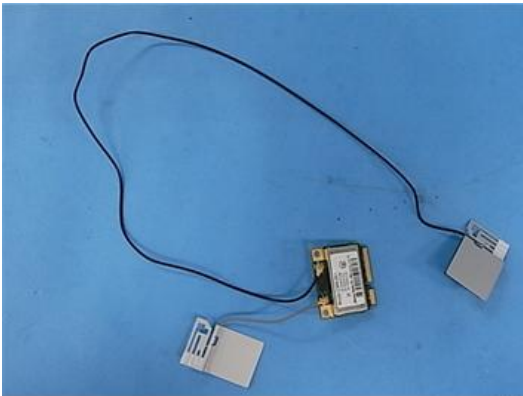


A harness runs along the red-dot line in the picture.



**Note**

- Be careful about the handling, because a junction of harness and antenna modules is easy to broken.





# 4. Troubleshooting

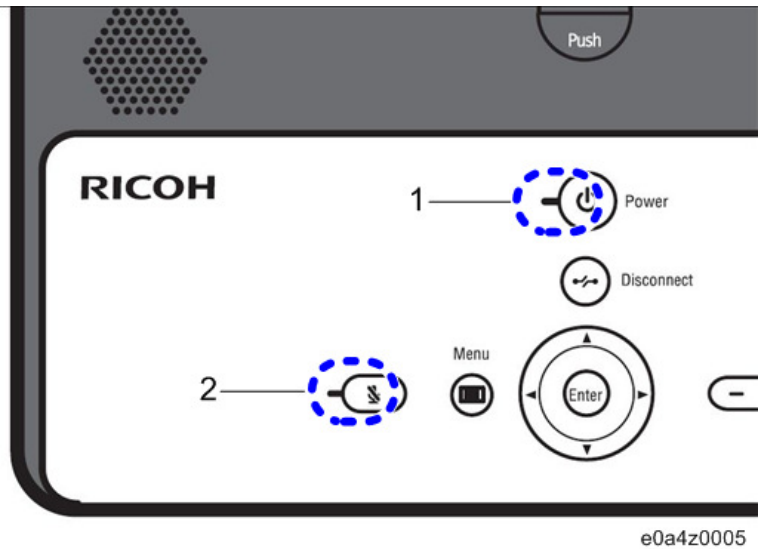
## LED Behavior and Meaning

### LED Behavior and Meaning

#### LED type

No.	Name	LED
1	Power indicator	Blue
2	Mute indicator	Blue

4



#### LED behavior

When the machine is turned on, the Power LED lights up for 0.5 seconds to verify they are operating normally.

After the check finishes, the Power LED turn off and the machine starts up.

**Power indicator**

Status	LED	Interval of blinking
Power off	Not lit	-
Powering up/down	Blinking	0.5 sec
Standby	Lit	-

**Mute indicator**

Status	Microphone mute: ON	Microphone mute: OFF
Internal mic.	Blinking (Lit for 1.5sec, off for 0.5 sec)	Not lit
External mic.	Not lit	Not lit


# Error Table



## Boot Sequence and Errors




Explanatory notes


No	Normal boot sequence		
	Screen Transition	LED	
		Process	
	Device Errors		
	Symptom	Possible Cause	Workaround

4

1	<div>Black</div> <div></div> <div>e0a01039</div>		Power LED: blinking (0.5sec) Mute Mic LED: blinking (0.5sec)
	Powering up		
	While powering up, the device stops and the screen remains black.	Possible HW issue.	Swap the device.

2	Logo screen		Power LED: blinking (0.5sec) Mute Mic LED: blinking (0.5sec)	
	 e0a01040		The OS is booting.	
3	While powering up, the device automatically and continuously reboots.	Possible HW issue.	Swap the device.	
	Message: Starting		Power LED: blinking (0.5sec) Mute Mic LED: blinking (0.5sec)	
	 e0a01041		Connecting to the network. <b>Note:</b> If the device can not connect to the network, menu screen will be displayed.	
	During loading of the OS, the device stops and the screen does not change.	Possible HW issue.	Swap the device.	

4	Booting Message: Connecting to the service  e0a01041		Power LED: blinking (0.5sec) Mute Mic LED: blinking (0.5sec)
	Authenticating with the central server.		
	During authentication with the central server, the device stops and the screen does not change.	Possible HW issue	Make sure that the central server is up. If so, swap the device.
5	Message: Loading screen data  e0a01041		Power LED: blinking (0.5sec) Mute Mic LED: blinking (0.5sec)
	Downloading the UI screen from central server.		
	LED does not work	Possible HW issue.	Swap the device.
6	Message: Connecting to the service  e0a01042		Power LED : Blinking (0.5sec) Mute Mic LED : Blinking (0.5sec)
	After connecting to the service, the contact list is downloaded from the central server.		
	Freeze/reboot/power failure	Possible HW issue.	Swap the device.

7	<p>Contact List screen</p>  <p>e0a01043</p>		<p>Power LED: blinking (0.5sec)</p> <p>Mute Mic LED: blinking (0.5sec)</p>
	Screen/video discoloration	<p>Possible HW issue</p> <p>Possible display issue</p>	<p>The contact list is displayed. The device is waiting for the user to make a selection.</p> <p>Make sure the display works properly. If so, swap the device.</p>
-	-		-
	-		-
-	No sound or sound volume is too low to hear.	<p>Possible HW issue</p> <p>Possible FW issue</p>	<p>Swap the device.</p>
-	-		-
	-		-
-	Buttons do not work.	Possible HW issue.	Swap the device.
-	-		-
	-		-
-	No output from the camera.	Possible HW issue	Swap the device.
-	-		-
	-		-
-	The sound/video being received from other parties is not clear.	<p>Possible HW issue</p> <p>Possible FW issue</p> <p>Possible network issue</p>	<p>Make sure the network connection being used by both parties has sufficient bandwidth. If so, swap the device.</p>



-	-		-
			-
-	Cannot connect to the network.	Possible network issue Possible HW issue (NIC) Possible FW issue	Once network problems have been ruled out, swap the device.
-	-		-
			-
-	No sound.	Possible HW issue Possible FW issue	Swap the device.
-	-		-
			-
-	Unable to share a PC screen.	Possible HW issue Possible FW issue PC Screen share driver is not installed	Make sure that the PC screen share driver is installed properly. Once the problems with the PC have been ruled out, swap the device.

## Error Message

### Explanatory notes

Error Code	Error Message	Situation
		Possible Cause(s):
		What to try:

0001	Machine Locked. Please call the support desk.	The device is not permitted to use.
		Problem with the users account status. It might have expired or is unpaid.
		Make sure the account is active.

0002	<p>Not Connected to the Network.</p> <p>Failed to update the firmware. It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then restart the machine and update the firmware again</p>	Failed to connect to the network after failed to update the firmware.
		Network error
		Try updating the firmware to the latest version.
0003	<p>Failed to connect to network.</p> <p>Failed to connect to the network. It may have been caused by the following. The network configuration is not correct. The wireless signal may be too weak. The network cable may be disconnected.</p> <p>Please check the network and then restart the machine.</p>	The device boots up with no network connection.
		Network error
		<p>Make sure that the device is properly configured for the network environment.</p> <p>Refer to the network troubleshooting sheet.</p>
0004	<p>Network connection disconnected.</p> <p>The machine has been disconnected from the network due to a network error.</p> <p>It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected.</p> <p>Please check the network and then restart the machine.</p>	Network disconnected during power up.
		Network error
		Refer to the network troubleshooting sheet.
0005	<p>Error on Starting the Machine.</p> <p>Restart the machine.</p>	Authentication failed.
		<p>Proxy setting is not correct.</p> <p>Authentication server failure.</p>
		<p>Make sure that the device is properly configured for the network environment.</p> <p>Refer to the network troubleshooting sheet.</p>
0007	<p>Error on Starting the Machine.</p> <p>Restart the machine.</p>	Error occurred during boot up.
		HW error.
		Restart the device. If the error persists, swap the device.

0008	<p>Network connection disconnected.</p> <p>The machine has been disconnected from the network due to a network error.</p> <p>It may have been caused by the following.</p> <p>The wireless signal may be too weak.</p> <p>The network cable may be disconnected.</p> <p>Please check the network and then restart the machine.</p>	Accessing to central server is failed during power up.
		Network error
		Refer to the network troubleshooting sheet.
0011	<p>Cannot Share the PC Screen.</p> <p>Restart the machine.</p>	Application for PC screen share in the device error.
		Application error
		Restart the device. If the error persists, swap the device.
0101	Error Occurred, Please Restart the Machine	-
		HW error
		Restart the device. If the error persists, swap the device.
0102	<p>Not Connected to the Network.</p> <p>Due to a DNS error the machine could not connect to the network.</p> <p>It may have been caused by the following.</p> <p>The DNS server configuration is not correct.</p> <p>Please check it and then restart the machine.</p>	DNS error
		DNS error
		<p>Check that the device is properly configured to access a DNS server.</p> <p>Check that the DNS server is functioning and that the name being resolved exists.</p>
0103	<p>Not Connected to the Network.</p> <p>Failed to connect to the network. It may have been caused by the following. The network configuration is not correct. The wireless signal may be too weak. The network cable may be disconnected.</p> <p>Please check the network and then restart the machine.</p>	Network connection disconnected by physical cause.
		Or an error happens in central server.
		<p>Central server or network error</p> <p>Refer to the network troubleshooting sheet.</p>

0104	<p>Not Connected to the Network.</p> <p>Failed to connect to the network. It may have been caused by the following. The network configuration is not correct. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then restart the machine</p>	Network connection disconnected by network environment
		Network error
		Refer to the network troubleshooting sheet.
0105	<p>Not Connected to the Network.</p> <p>Failed to connect to the network. It may have been caused by the following. The proxy configuration is not correct. Please check it and then restart the machine</p>	Proxy authentication error
		Proxy setting is wrong
		Make sure that the device is properly configured for proxy authentication.
0106	<p>Error Occurred.</p> <p>Press and hold the Power key for more than 4 seconds to restart the machine</p>	User operation is ignored when this error is displayed.
		HW error
		Restart the device. If the error persists, swap the device.
0201	<p>Error occurred.</p> <p>Restart the machine.</p>	Unknown
		HW error
		Restart the device. If the error persists, swap the device.
0202	<p>Network connection disconnected.</p> <p>The machine has been disconnected from the network due to a network error.</p> <p>It may have been caused by the following.</p> <p>The wireless signal may be too weak.</p> <p>The network cable may be disconnected.</p> <p>Please check the network and then restart the machine.</p>	Network disconnected. If OK is clicked, the device tries to connect to the network again.
		Network error
		Refer to the network troubleshooting sheet.
0203	Error Occurred, Please Restart the Machine	System error occurred.
		System bug.
		Restart the device. If the error persists, swap the device.

0204	Error occurred. Leave the meeting and restart the machine.	Unknown
		There is a low possibility of network error.
		Refer to the network troubleshooting sheet.
0205	Not Connected to the Network. Failed to connect to the network. It may have been caused by the following. The network configuration is not correct. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then restart the machine.	If network setting is changed and they are invalid, this error is shown.
		Central server or network error
		Refer to the network troubleshooting sheet.
0206	Error occurred. Leave the meeting and restart the machine.	System error occurred during meeting.
		System error.
		Restart the device. If the error persists, swap the device.
0207	Error Occurred. Restart the machine. To send the activity status report select [Sending a Report].	Unknown
		HW error
		Restart the device. If the error persists, swap the device.
0208	Error Occurred, Please Restart the Machine. To send the activity status report select [Sending a Report].	System error occurred.
		System error.
		Restart the device. If the error persists, swap the device.
0301	Check the Microphone Speaker. If the microphone speaker does not work properly then please restart the machine.	The device could not recognize the external microphone speaker. Restart might not be needed.
		HW (Microphone Speaker) error
		Reconnect the Microphone Speaker and restart the device. If the microphone speaker does not work properly, swap the device.

0302	Error Occurred, Please Restart the Machine	The device could not recognize the external microphone speaker. Restart is needed.
		HW (Microphone Speaker) error
		Reconnect the Microphone Speaker and restart the device. If the microphone speaker does not work properly, swap the device.
0303	This setting is effective only when the external microphone is connected.	Internal microphone is active.
		-
		Restart the device. If the error persists, swap the device.
0304	Failed to obtain microphone gain value.	The device could not recognize the external microphone speaker
		-
		Restart the device. If the error persists, swap the device.
0305	Failed to set the microphone gain value.	The device could not recognize the external microphone speaker
		-
		Restart the device. If the error persists, swap the device.
0401	Error While Configuring. Please restart the machine	-
		HW error
		Restart the device several times. If the error persists, swap the device.
0402	Error While Configuring. Please configure it again.	-
		HW error
		Restart the device several times. If the error persists, swap the device.

0501	<p>Failed to Start Meeting.</p> <p>There may be a problem either with the network or you and another party have performed an operation simultaneously. Please try again.</p>	Some parties have performed a same operation (call each other) simultaneously.
		Central server or network error
		Refer to the network troubleshooting sheet.
0503	<p>Disconnected from the Meeting.</p> <p>The machine has been disconnected from the meeting due to a network error. It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. The network bandwidth may be insufficient. Please check the network and then start the meeting again</p>	There is a high possibility that an error occurred by other than network disconnection.
		Central server or network error
		Refer to the network troubleshooting sheet.
0504	<p>Disconnected from the Meeting.</p> <p>The machine has been disconnected from the meeting due to a network error. It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then select [OK]. The machine will then try to connect to the network again.</p>	Network disconnected during meeting. If click OK, the device tries to connect to the network again.
		Central server or network error
		Refer to the network troubleshooting sheet.
0509	<p>Information Unavailable. Switch the screen layout again.</p>	Failed to download contact list view from central server.
		Central server or network error
		Refer to the network troubleshooting sheet.
0510	<p>Failed to Switch Screen Layout. Switch the screen layout again.</p>	Failed to change the screen layout during meeting.
		Central server or network error
		Restart the device. If the error persists, swap the device.

0513	<p>Failed to Start Meeting</p> <p>There may be a problem with the network or you and another party have performed an operation simultaneously. Please go back to the contact list and try again. To send the activity status report select [Sending a Report].</p>	Failed to call the initiation or the reception.
		Network error
		Refer to the network troubleshooting sheet.
0514	<p>Disconnected from the Meeting</p> <p>The machine has been disconnected from the meeting due to a network error. It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. The network bandwidth may be insufficient. To restart the meeting please check the network and select [Back to Contact List]. To send the activity status report select [Sending a Report].</p>	There is a high possibility that an error occurred by other than network disconnection during meeting.
		Central server or network error
		Refer to the network troubleshooting sheet.
0515	<p>Disconnected from the Meeting</p> <p>The machine has been disconnected from the meeting due to a network error. It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then select [Back to Contact List]. The machine will then try to connect to the network again. To send the activity status report select [Sending a Report].</p>	Network disconnected during meeting.
		Central server or network error
		Refer to the network troubleshooting sheet.
0601	<p>Failed to Save Configuration.</p> <p>Select [Cancel] to return to the menu and then change the settings again.</p>	Failed to save network setting configuration.
		HW error
		Restart the device. If the error persists, swap the device.



0602	<p>Failed to Obtain IP Address Automatically.</p> <p>The configuration has been saved, but the machine failed to obtain the IP address. It may have been caused by the following. The configuration of the authentication method or SSID may be incorrect. There may be a problem with the DHCP environment. The wireless signal may be too weak. The network cable may be disconnected. If you are using a wireless network please first check the network configuration. If the configuration is correct or the network is wired then next please check the network.</p>	Failed to save network setting configuration.
		Network error (Failed to obtain IP address)
		Make sure that the device is properly configured for network environment. (DHCP/DNS)
0604	<p>Failed to apply Wired Setting.</p> <p>Select [Cancel] to return to the Configuration Menu and then change the settings again.</p>	Failed to apply wired setting.
		Network or system error
		Retry the setting and refer to the network troubleshooting sheet. If the error persists, swap the device.
0605	<p>Failed to save Wired Setting.</p> <p>Select [Cancel] to return to the Configuration Menu and then change the settings again.</p>	Failed to save wired setting.
		System error
		Retry the setting. If the error persists, swap the device.
0606	<p>Failed to apply Wireless Setting.</p> <p>Select [Cancel] to return to the Configuration Menu and then change the settings again.</p>	Failed to apply wireless setting.
		Network or system error
		Retry the setting and refer to the network troubleshooting sheet. If the error persists, swap the device.
0607	<p>Failed to save Wireless Setting.</p> <p>Select [Cancel] to return to the Configuration Menu and then change the settings again.</p>	Failed to save wireless setting.
		System error
		Retry the setting. If the error persists, swap the device.

0608	Failed to Save Configuration. Please configure it again.	Failed to save configuration.
		System error
		Retry the setting. If the error persists, swap the device.
0609	Failed to save Wired Setting. Please configure it again.	Failed to save wired setting.
		System error
		Retry the setting. If the error persists, swap the device.
0610	Failed to save Wireless Setting. Please configure it again.	Failed to save wireless setting.
		System error
		Retry the setting. If the error persists, swap the device.
0611	Failed to apply Wired Setting. Please configure it again.	Failed to apply wired setting.
		Network or system error
		Retry the setting. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
0612	Failed to apply Wireless Setting. Please configure it again.	Failed to apply wireless setting.
		Network or system error
		Retry the setting. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
0701	Failed to Process Registration Request. Accept or decline the registration request again.	Error occurs during accepting the contact request.
		Central server or network error
		Refer to the network troubleshooting sheet.
0702	Check the Registration Request List. If unprocessed requests exist please accept or decline them again.	-
		Central server or network error
		Refer to the network troubleshooting sheet.

0801	Error Occurred During Meeting. Press the Disconnect key to leave the meeting.	HW error occurs during meeting. Restart is needed.
		HW error
		Restart the device. If the error persists, swap the device.
0902	Failed to Share the PC Screen. Please select [Start Sharing] on your PC again.	Failed to start PC screen share. Reboot is not necessary.
		HW error
		Restart the device. If the error persists, swap the device.
0904	PC Screen Share Error. To share the PC screen, leave the meeting and restart the machine.	PC screen share error occurred during meeting. It is possible to continue the meeting.
		HW error
		Restart the device. If the error persists, swap the device.
1001	Disconnected from the Network. The machine has been disconnected from the network. It may have been caused by the following. The network bandwidth may be insufficient. The wireless signal may be too weak. The network cable may be disconnected. Please check the network.	Error occurred during boot up.
		Network error
		Refer to the network troubleshooting sheet.
1002	Failed to Update the Firmware. Restart the machine and update the firmware again.	Failed to complete firmware update.
		System error
		Try updating the firmware to the latest version. If the error persists, swap the machine.
1003	Error Occurred, Please Restart the Machine	Firmware error occurred.
		Firmware error
		Restart the device. If the error persists, swap the device.

1004	Error Occurred, Please Restart the Machine.	Error occurred during the device setting. Restart is needed.
		-
		Restart the device. If the error persists, swap the device.
1005	Failed to Connect to Network. To check the network configuration select [Configurations]. To retry connecting with the current configuration select [OK].	Disconnection at constant time with network error during startup.
		Central server or network error
		Refer to the network troubleshooting sheet.
1101	Error Occurred, Please Restart the Machine	-
		System error
		Restart the device. If the error persists, swap the device.
1102	Error Occurred. Leave the meeting and restart the machine.	-
		System error
		Restart the device. If the error persists, swap the device.
1103	Failed to Obtain Signal Strength. Restart the machine.	Failed to obtain wireless signal strength. Actually, it is highly possible that the device is not connected to the network.
		System error
		Restart the device. If the error persists, swap the device.
1104	Failed to Obtain Signal Strength	Failed to obtain wireless signal strength. Actually, it is highly possible that the device is connected to the network.
		System error
		Restart the device. If the error persists, swap the device.

1201	Failed to Obtain the System Information. Restart the machine.	Failed to obtain the system information.
		System error
		Restart the device. If the error persists, swap the device.
1302	Failed to Update the Firmware. Restart the machine and update the firmware again.	This error message is shown when failed to update the firmware and to connect to the network after the reboot.
		Central server or HW error
		Check the central server. If the central server works fine, swap the device.
1303	Network Disconnected During Update. The machine could not update the firmware. Please check the network, restart the machine and then update the firmware.	This error message is shown when failed to update the firmware and to connect to the network after the reboot.
		Network error
		Try updating the firmware to the latest version.
1304	Failed to Obtain Firmware Update Info. To update the firmware, restart the machine.	Failed to obtain firmware update information.
		Central server or network error
		Refer to the network troubleshooting sheet.
1305	Error Occurred. If the microphone speaker does not work properly then please restart the machine."	Unknown
		HW error
		Restart the device.
1401	Failed to Send a Report. The problem may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected. Please check the network and then send the report again.	Failed for sending log data.
		Central server, network, or system error
		Restart the device. And then refer to the network troubleshooting sheet.

1501	<p>Error While Preparing.</p> <p>An internal error occurred with the connection check.</p> <p>To send the activity status report select [Sending a Report].</p>	Error occurred with the connection check.
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1502	<p>Error While Preparing.</p> <p>Failed to initialize. To send the activity status report select [Sending a Report].</p>	Error occurred with the connection check.
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1503	<p>Error While Preparing</p> <p>Failed to connect to the service. To send the activity status report select [Sending a Report].</p>	<ul style="list-style-type: none"> <li>• Error occurred with the connection check.</li> <li>• UCD or VIDYO service connection error</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1504	<p>Error While Preparing</p> <p>Failed to connect to the service. To send the activity status report select [Sending a Report].</p>	<ul style="list-style-type: none"> <li>• Error occurred with the connection check.</li> <li>• UCD or VIDYO service connection error</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.

1505	Error While Preparing  There is no response from the service. To send the activity status report select [Sending a Report].	<ul style="list-style-type: none"> <li>• Error occurred with the connection check.</li> <li>• Timeout error</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1506	Error While Preparing  Some error occurred on this terminal. To send the activity status report select [Sending a Report].	<ul style="list-style-type: none"> <li>• Error occurred with the connection check.</li> <li>• STATE error</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1511	Error While Connection Check  The service has been disconnected. To send the activity status report select [Sending a Report].	<ul style="list-style-type: none"> <li>• Error occurred with the connection check.</li> <li>• UCD or VIDYO service disconnection error</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1512	Error While Connection Check.  Failed to send and/or receive a picture.  To send the activity status report select [Sending a Report].	Error occurred with the connection check.
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.

1513	Error While Connection Check. An internal error occurred with the connection check. To send the activity status report select [Sending a Report].	<ul style="list-style-type: none"> <li>Error occurred with the connection check.</li> </ul>
		Network, system, or device error
		Restart the device. And then refer to the network troubleshooting sheet. If the error persists, swap the device.
1601	Failed to Save Settings.	Failed to save settings.
		System error
		Retry the setting. And then restart the device. If the error persists, swap the device.
1602	Failed to Save Parameters. Failed to save the parameters to the card.	Failed to save parameters on SIM card.
		SIM Card is dirty, oxidized, broken, or the device is broken.
		Clean the SIM card with alcohol. Then do not touch its metal parts. If the error persists, swap the SIM card.
1603	Failed to Restore Parameters. Failed to restore the following settings from the card.	Failed to restore parameters from SIM card.
		SIM Card is dirty, oxidized, broken, or the device is broken.
		Clean the SIM card with alcohol. Then do not touch its metal parts. If the error persists, swap the SIM card.
1605	Failed to Save Parameters. Failed to save the parameters to the card. Applying the network settings has been cancelled.	Failed to save parameters on SIM card.
		SIM Card is dirty, oxidized, broken, or the device is broken.
		Clean the SIM card with alcohol. Then do not touch its metal parts. If the error persists, swap the SIM card.



## When an Acoustic Feedback Noise Can Be Heard

### ↓ Note

- Because the automatic learning function of the echo canceller is active for approximately 5 to 10 seconds after a meeting starts, you may hear a loud noise or acoustic feedback for a short while. Although this noise dramatically lowers the audio quality and makes it difficult to hear the other party at the beginning of the meeting, there is nothing wrong with the machine.
- The audio quality gradually improves as you continue the meeting and speak with the other party.

If the machine is being used in one of the following locations, move the machine to a different location.

Inappropriate location	Solution	Description
Audio from the other party can be heard directly.	Move away to a place where audio from the other party cannot be heard directly.	Direct audio input from the other party into the microphone produces repeated feedback.  This feedback is not canceled by the echo canceller, resulting in a acoustic feedback noise.
The machine is set next to a wall.	Keep the machine away from walls.	If the level of the sound input exceeds the capacity of the echo canceller, some of the echoes cannot be canceled, resulting in an acoustic feedback noise.
The machine is placed next to a device that generates noise.	Keep the machine away from devices that generate noise.	If the volume of noise exceeds the capacity of the noise reduction function used to cancel noise, the remaining noise that is not canceled will generate repeated feedback, resulting in an acoustic feedback noise.
Room that echoes	Lower the volume of the speaker and adjust the orientation of the machine.	If the cycle of the sound input is longer than the cancelable time (up to 128 ms) of the echo canceller, some echoes cannot be canceled, resulting in a acoustic feedback noise.  To reduce the amount echoes, lower the volume of the speaker and turn the machine to face a direction in which echoes are not picked up easily.

\* This table applies to both the internal and external speaker.

Avoid doing the following things when using the machine.

Inappropriate use	Solution	Description
Your have placed your hand or object in front of the microphone.	Do not place your hand or object in front of the microphone.	The echo canceller cannot handle abrupt changes in the acoustic environment and fully cancel echoes, resulting in an acoustic feedback noise.
The machine is moved during a meeting.	Before moving the machine, set Mic Mute to ON. After you finish moving the machine, reset Mic Mute to OFF.	The echo canceller cannot handle abrupt changes in the acoustic environment and fully cancel echoes, resulting in a acoustic feedback noise.
The speaker volume is too loud.	Lower the volume of the speaker.	If the level of sound input exceeds the capacity of the echo canceller, some echoes cannot be canceled, resulting in an acoustic feedback noise. If the speaker output is distorted, the echo canceller cannot handle the distortion, resulting in an acoustic feedback noise.
The external microphone speaker is placed next to the fan outlet of the machine. * Only when an external microphone speaker is being used.	Keep the external microphone speaker away from the fan outlet.	If the volume of fan noise exceeds the capacity of the noise reduction function, the remaining noise that is not canceled will generate repeated feedback, resulting in an acoustic feedback noise.

\* This table applies to both the internal and external speaker.

Echo canceller: Automatically cancels echoes.

Noise reduction: Automatically cancels noise.

Network Trouble Shooting

For both wired and wireless connections

Questions	Causes	Solutions
The machine failed to start	One of the network settings is incorrect, such as the IP address, subnet mask, or default gateway.	Check the network settings
	MAC addresses are limited. (When using DHCP, the machine fails to obtain an IP address.)	Improve the ambient environment. Register additional MAC addresses.
	<ul style="list-style-type: none"><li>A required proxy server setting is not specified.</li><li>A proxy server is specified even though it does not exist.</li><li>A proxy server setting is incorrect.</li></ul>	Review the proxy server settings.
	When using a fixed IP address and a proxy exists:  The proxy server name has not been resolved by DNS.	Configure the PC to use the same DNS and proxy server settings, and then use a browser to check whether it passes proxy authentication.  Configure the DNS settings so that DNS can resolve the proxy server name.  When using the machine in a R-WAN:  Use the same DNS settings for the entire company. <ul style="list-style-type: none"><li>Preferred DNS:165.96.170.104</li><li>Alternate DNS:192.168.242.10</li></ul>

Questions	Causes	Solutions
Failure to start a meeting	<p>When no proxy is used:</p> <ul style="list-style-type: none"> <li>A port for TCP (17992 or 17990) or UDP (50000-65535) is closed.</li> <li>The UDP packets are distributed to an inappropriate server, such as a Video on Demand server.</li> </ul> <p>When using a proxy:</p> <ul style="list-style-type: none"> <li>The machine leaves the meeting by mistake because it takes longer than expected to start. (There are times it may take 30 seconds or more.)</li> </ul>	<p>When no proxy is used:</p> <p>Improve the ambient environment.</p> <ul style="list-style-type: none"> <li>Confirm that the required ports are open.</li> <li>Use a tool to check the ports or consult the network administrator.</li> <li>Reconfigure the settings for the router that distributes UDP packets.</li> <li>Connect to an upstream path that is at a higher level than the distributing router. Consult the network administrator.</li> </ul> <p>When using a proxy:</p> <p>Wait a while and then retry.</p>

**For wired connections only**

Questions	Causes	Solutions
The machine failed to start	The cable is broken or the hub has failed.	<p>Improve the ambient environment.</p> <ul style="list-style-type: none"> <li>Check whether the indicator LED for the port is on. If the LED is off, replace the cable or reconnect it to a different port on the hub. If the hub has failed, replace it.</li> <li>Check whether the cable latch and connector are firmly engaged. Do not use a cable that has a broken latch.</li> </ul>

Questions	Causes	Solutions
The machine failed to start A PC can connect to a network with the same network settings.	The spanning tree function of the switch connected to the MD discards the request issued when the meeting is started.	<p>Improve the ambient environment.</p> <ul style="list-style-type: none"> <li>• Install a hub between the switch and MD.</li> <li>• Disable the spanning tree function on the port of the switch connected to the MD. (You must check with the network administrator to determine whether this can be done.)</li> </ul>

#### For wireless connection only

Questions	Causes
The video stream of the meeting stops.	This is a Video specification limitation. If there is a lack of bandwidth for wireless communication, the video is cut off and only the audio is played.
The video as if it is being played frame by frame.	The lack of bandwidth during wireless communication causes the frame rate to decrease.
The audio cuts in and out.	This problem occurs because electromagnetic interference and a lack of bandwidth causes wireless communication to be temporarily lost.
The video and audio fall out of sync, with the audio being heard first.	Lip sync (for synchronizing video and audio) does not work properly because there is a lack of bandwidth for wireless communication.
There seems to be an echo in the audio.	The echo canceling function fails to work properly because there is a lack of bandwidth for wireless communication.
The meeting ends or is left abruptly. (This occurs when video and audio are lost for approximately five seconds.)	This problem occurs because electromagnetic interference and a lack of bandwidth causes wireless communication to be temporarily lost. As a result, the machine becomes disconnected from the access point.

Questions	Causes
A delay occurs when PC Screen Share attempts to switch to a different screen.	This problem occurs because there is a lack of bandwidth for wireless communication. As a result, the recommended communication speed (1 Mbps or more) is unavailable.
If video stops for a set length of time while displaying multiple contacts, the contacts disappear from the screen (and only audio is output).	This problem occurs because there is a lack of bandwidth for wireless communication. To optimize all the contacts, the downstream direction is given priority over the upstream direction.
A delay occurs when obtaining the contact list or updating a contact status display, or it becomes impossible to do either.	This problem occurs because there is a lack of bandwidth for wireless communication.
The firmware update takes longer than expected, and fails before it is complete.	This problem occurs because the wireless communication speed decreases when there is a lack of bandwidth for wireless communication. This results in electromagnetic interfere that causes wireless communication to be temporarily lost.
There are times the machine fails to start	This problem occurs as result of electromagnetic interference that prevents the machine from connecting to the access point while starting (50-second timeout).
There are times the machine fails to connect	This problem occurs because not enough bandwidth (300 kbps or more) can be reserved when starting a meeting.
The screen becomes garbled when the layout is changed. (This screen remains garbled until the video to be displayed reaches the machine.)	This problem occurs because there is a lack of bandwidth for wireless communication.

### Solutions

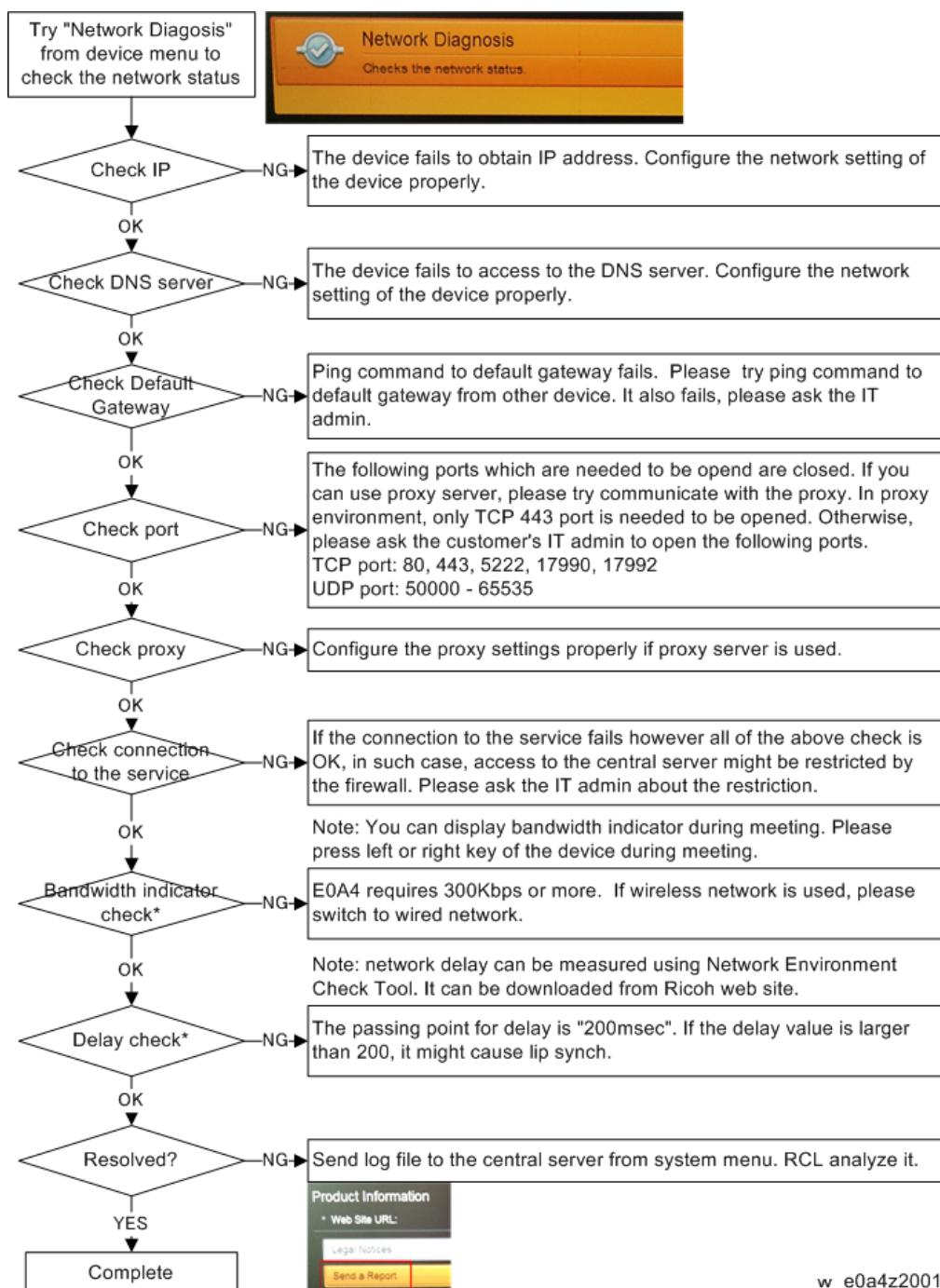
To fix this problem, the following measures can be performed on the terminal side:

- Switch to a wired communication
- Do not use a proxy server.
- Place the machine as close as possible to the access point.

Improve the ambient environment.

- Turn off any unused wireless LAN devices or other devices using the same frequency range (such as a microwave oven), or eliminate the electromagnetic interference.
- Use a network projector. If any of the Questions on "For wireless connection only" occurs, disable the wireless LAN function of the projector.
- If multiple access points exist, specify channel settings that are at least five channels apart (for example, 1ch and 6ch, or 7ch and 12ch).
- Keep conductive objects such as metal away from the machine.
- Do not obstruct the access point (such as setting the access point near a wall, standing in front of the access point, or placing furniture in front of it).
- Do not use an IEEE802.11b wireless LAN device. (In a wireless environment in which both 11b and 11g exist, packet control is implemented to avoid packet conflicts, which in turn causes the speed to decrease. There are also times 11b is used for communication because it has a lower rate.)
- If an access point that supports IEEE802.11n is available, use Single Channel (20 MHz).

## Network troubleshooting flow





## Problems when Using Unified Communication System Settings

Problem	Possible cause/location	Solution/Judgment
The Unified Communication System Settings page is not displayed.	PC Settings	<p>Your Security Settings in Internet Explorer must be configured to enable the following settings:</p> <p><b>Scripting</b></p> <ul style="list-style-type: none"> <li>• Active scripting</li> </ul> <p><b>ActiveX controls and plug-ins</b></p> <ul style="list-style-type: none"> <li>• Run ActiveX controls and plug-ins</li> <li>• Script ActiveX controls marked Safe for scripting</li> <li>• Binary and Script behaviors</li> </ul> <p><b>Downloads</b></p> <ul style="list-style-type: none"> <li>• File downloads</li> </ul>
The layout of Unified Communication System Settings is corrupted.	Setting the browser/OS font	Decrease the font size in your browser/OS
The layout of Unified Communication System Settings is corrupted.	Magnification in Internet Explorer	In Internet Explorer 7, set the browser's zoom level to 100%.
Cannot log into Unified Communication System Settings.	The date set on the PC indicates a future date (which is later than the expiry for the session).	Set the PC to the current date.
The screen sharing software does not start automatically.	An appropriate USB driver is not installed.	Install the appropriate USB driver.

## Restrictions

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### Handling This Product

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Do the following when moving the machine:

- Turn off the machine and disconnect the power plug from the power connector.
- Disconnect all cables connected to the machine.
- Return the camera to the closed position.
- Do not attempt to raise or move this machine by the camera unit.
- To carry the machine by hand:
  - Use the bag that comes with the machine.
  - When traveling by plane, take this machine onboard as carry-on luggage.
- To transport the machine:

This machine contains many glass and precision parts. To prevent the machine from being damaged by excessive shock, make sure to do the following:

- Wrap the machine in a cushioning material to prevent it from being directly exposed to shock.
- Place the machine in the supplied bag and pack it in the original box or a sturdy cardboard box.
- Inform the transport company that the machine is breakable.
- For more information about transporting the machine, consult the transport company.

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.

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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.
- Before using a wireless LAN, make sure there is nobody with a pacemaker nearby. This product may cause pacemakers to malfunction due to electromagnetic interference.
- Before using a wireless LAN, make sure there is no medical equipment nearby. This product may cause medical equipment to malfunction due to electromagnetic interference.

- Before using a wireless LAN, make sure there are no limitations or restrictions in the place you will be using it. There may be restricted use in places such as medical facilities due to electromagnetic interference.
- Do not use a wireless LAN if there is electromagnetic interference from other equipment. Doing so may cause an accident due to the other equipment malfunctioning from the electromagnetic interference.

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## 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.
- Periodically remove the dust that accumulates in the air outlet. If the air outlet becomes clogged, the flow of air inside the machine decreases. Poor air flow can result in failure.

4

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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.

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## Electromagnetic Interference

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1. Interference may occur if the machine is placed next to other electronic devices.  
In particular, noise may be generated if the machine is placed near a television or radio.  
If noise or interference occurs, take the following actions:
  - Place the machine as far away as possible from the television or radio.
  - Readjust the direction of the television or radio antenna.
  - Use different AC outlets.

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## Precautions for Use

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1. A separate video output device (such as a monitor or projector) is required in order to use this product.
2. Be sure to use the power cord set and USB cable included with the machine.
3. Pack and store the machine together with the power cord set, USB cable, and Quick Guide in the supplied bag. Do not store any other items in the supplied bag.

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## System Operations

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### 4

#### 1. Wireless

If there are many wireless LAN access points near the machine, it may fail to connect to wireless LAN (or may fail to start up as a terminal).

#### 2. Call Initiation

If the presence of a terminal changes at the time when a call is initiated to it (as seen in the following case), the meeting may fail to start. If the call is initiated again, the terminals are connected normally.

- The Contact List screen shows that the other terminal is Ready.

- Selecting the other terminal and pressing the Enter button displays the "Do you want to connect with this contact?" screen.

- The other terminal goes offline when the "Do you want to connect with this contact?" screen is still displayed.

\* Call initiation also fails if the presence of the other terminal changes as follows:

Meeting>Ready

Ready>Meeting

Ready>Offline

Meeting>Offline

Call initiation succeeds if the presence changes as follows:

Ready>Meeting>Ready

Meeting>Ready>Meeting

- On the "Do you want to connect with this contact?" screen, OK is selected.

- Call initiation fails (because the other terminal is offline).

If a call is initiated to a meeting that has reached the maximum number of 20 contacts, the following dialog box is displayed:

---- Dialog box description -----

Title: Call Failed

Message: The number of participating contacts has reached the maximum.

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### 3. Call Reception

A terminal cannot receive a call when an error message is displayed.

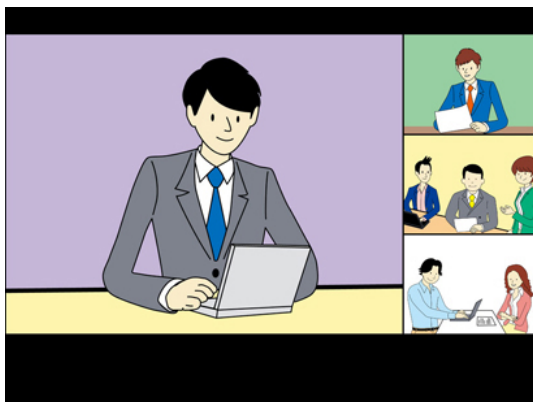
\* A terminal cannot receive a call when it is displaying a screen other than Contact List screen, or an error dialog box containing an OK button, prompting for restart, or containing a button to turn the power off.

### 4. Meeting in Progress

If the bandwidth of the network used during a meeting gets too narrow, no video is displayed and only audio is available during the meeting.

For a meeting of two contacts, the video screen layout for "One larger pane (for the other contact) and multiple smaller panes (for you and all other contacts)" is the same as the layout for "Panels for all contacts (including you)".

"One larger pane (for the other contact) and multiple smaller panes (for you and all other contacts)" layout



"Panels for all contacts (including you)" layout



Terminals that are not registered in Contact List on the local terminal are not displayed on the Meeting Information screen.

5. Firmware Update

If a required update is missing, the terminal cannot use any meeting function or process any incoming registration requests in general.

If the power cord is disconnected (or if a power failure occurs) at a particular point during a firmware update, the firmware may be destroyed, making it impossible to start the terminal.

6. Menus

If the power cord is disconnected (or a power failure occurs) at a particular point during a firmware update, the firmware may be destroyed, making it impossible to start the terminal.

After starting up, the machine cannot switch between wired and wireless LANs.

Sort order cannot be changed on the Registration Request List screen.

- If the network connection is lost, no registration request can be viewed.
- If the machine is not connected to a network while viewing System Information, no Contact ID or UI version can be viewed.

7. You cannot connect display devices to the HDMI and RGB connectors simultaneously.

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## Unified Communication System Settings

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1. PC Settings

You cannot log in if the PC is set to a future date.

Your Security Settings in Internet Explorer must be configured to enable the following settings:

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**Scripting**

Active scripting

**ActiveX controls and plug-ins**

Run ActiveX controls and plug-ins

Script ActiveX controls marked Safe for scripting

Binary and Script behaviors

**Downloads**

File downloads

If multiple browser instances are started and different Contact ID information is used to log in, the session with the last Contact ID used to log in becomes active.

Increasing the font size in your browser/OS may corrupt the display layout.

Setting the zoom level to a value other than 100% in Internet Explorer 7 may corrupt the display layout.

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## PC Screen Share

### 1. Screen Sharing

Translucent windows cannot be shared.

\* If Windows Aero is enabled, a translucent window can also be shared.

### 2. Performance

The frame rate may drop to 5 fps or less due to network delays or high resource load inside the machine.

4

## Cause of Acoustic Feedback

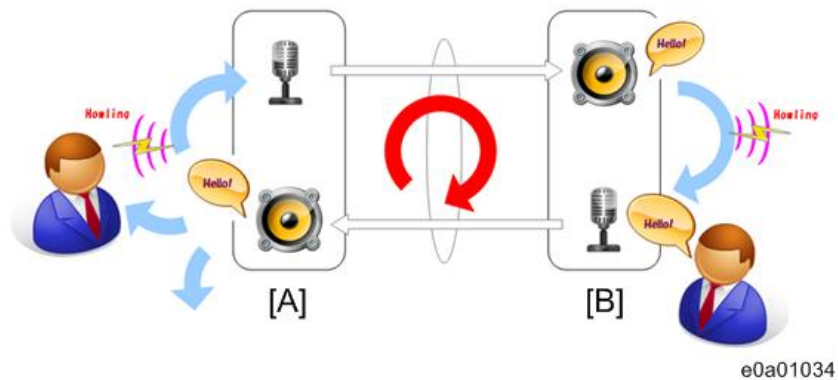
The common cause of acoustic feedback in a karaoke room or hall is illustrated below.



e0a01035

Acoustic feedback occurs when sounds from the speaker diffract and surround the microphone at the same time as when the same speaker produces echoes.

The cause of acoustic feedback during video conferencing is illustrated below.



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[A] : Listener

[B] : Person talking

Acoustic feedback occurs when the voice of the person talking (including ambient noise) diffracts through the speaker and microphone on the listener side at the same time as when the speaker on the side of the person talking produces echoes.



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MEMO

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MEMO