# Model MD-D1 Machine Codes: E0A2

**Field Service Manual** 

# **Important Safety Notices**

#### LEAD-FREE SOLDER

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.

### Prevention of Physical Injury

- 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.

# Observance of Electrical Safety Standards

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

#### Safety and Ecological Notes for Disposal

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.

### **Battery Precautions**

## **MARNING**

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

## **↑** WARNING

- · What to do if a battery has leaked
  - If leakage from a battery adheres to your skin, rinse it with water immediately, and then contact a doctor.
  - Wipe off the leakage with tissue paper while being careful not to touch it.

• Soak the tissue paper that you used in water, and then throw it away as burnable trash.

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

# **Symbols and Trademarks**

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

F	Screw
	Connector

### Trademarks

 $Microsoft^{@}$  and  $Windows^{@}$  are registered trademarks of Microsoft Corporation in the United States and /or other countries.

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

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# 1. Product Information

# **Specifications**

Item	Specification
Interface	<ul> <li>Ethernet: 10BASE-T, 100BASE-TX, 1000BASE-T</li> <li>IEEE802.11g, IEEE802.11b, IEEE802.11n</li> <li>Encryption method: WEP128bit/64bit, WPA-PSK(TKIP/AES), WPA2-PSK(AES), WPA-EAP(TKIP/AES), WPA2-EAP(TKIP/AES)</li> <li>USB2.0 (type A)×2</li> <li>USB2.0 (type mini-B)</li> <li>Analog RGB (VGA)</li> <li>Audio output</li> </ul>
Proxy authentication	Basic authentication
Port	The following port numbers are available for communication:  • When no proxy is used  TCP: 80, 443, 5222, 17990, 17992  UDP: 50000 - 65535*1  • When a proxy is used  TCP: 443
Network bandwidth	Maximum 2Mbps
Video resolution	<ul> <li>Maximum transmission resolution 480×270 pixels</li> <li>Maximum reception resolution 640×360 pixels</li> </ul>
Frame rate	Up to 10 fps
Video mode	<ul> <li>This machine</li> <li>1024×600 pixels (WSVGA)</li> <li>Video output device</li> </ul>

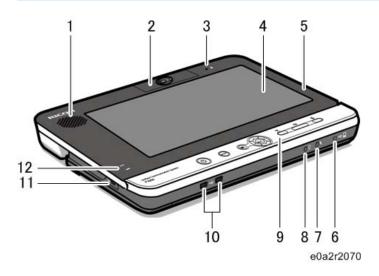
ltem	Specification
	1024×768 pixels (XGA), 1280×800 pixels (WXGA)
Video coding	H.264 Annex G (SVC)
Voice coding	SPEEX wideband/ITU-T G.711/ITU-T G.722
Data transfer	RTP (RFC1889/RFC3550) and RTCP (RFC1890/RFC3551)
Focus	Pan focus
Automatic camera adjustment	Automatic gain control     Automatic white balance control
Microphone	<ul> <li>Automatic echo canceller</li> <li>Automatic noise reduction</li> <li>Automatic gain control</li> <li>Muting</li> </ul>
Noise	40 dB or less
Battery operating time	Maximum 2 hours
Charging time (From no battery power to full charge)	Approx. 3 hours (while the power is off)
Power Source	<ul> <li>For mainly Europe</li> <li>220 V - 240 V, 50 Hz</li> <li>For mainly Asia</li> <li>110 V, 220 V - 240 V, 50/60 Hz</li> <li>For mainly North America</li> <li>120 V, 60 Hz</li> </ul>
Power consumption	<ul> <li>When the AC adapter is connected (while the power is off) <ul> <li>0.5 W or less</li> </ul> </li> <li>Maximum <ul> <li>25 W or less</li> </ul> </li> <li>Maximum (when a digital audio input/output device or a video input device are connected)</li> <li>30 W or less</li> </ul>

ltem	Specification
External dimensions (W×D×H)	<ul> <li>Main unit (display unit folded) (excludes projection)</li> <li>280.0×215.0×29.0 mm (11.0×8.5×1.1 inches)</li> </ul>
Weight	<ul> <li>This machine (battery included)</li> <li>1.3 kg (2.9 lb.) or less</li> <li>AC adapter</li> <li>Approx. 140 g (0.3 lb.)</li> </ul>

 $<sup>^*</sup>$  1 A port in the range of 50000 to 65535 is selected as the port used for communication, according to the environment and conditions.

# Overview

# Front and Top View

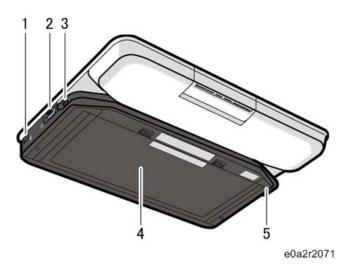


No.	Name	Main Function
1	Speaker	Outputs audio from other parties.
2	Camera unit	Captures live video that is transmitted to other parties.
3	Microphone	Inputs audio from the machine.
4	Display	Displays video output
5	Display unit	This machine consists of a stand unit and a display unit.  Raise the display unit when using the machine.
6	USB port (type mini-B)	Used to connect the machine to your computer and share the computer screen.
7	Audio input	Used to connect the machine to the analog audio input device, such as a microphone or headset.
8	Audio output	Used to connect the machine to the analog audio output device, such as a headphones or headset.
9	Control Panel	Provides a set of keys used to operate the machine.

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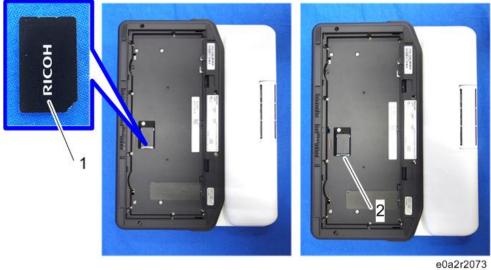
No.	Name	Main Function
10	USB ports (type A)	Used to connect digital audio input/output devices such as a USB microphone speaker, and video input devices such as a USB camera.
11	Anti-theft lock hole	Hole for connecting the anti-theft chain.
12	Battery status indicator	Displays the charging status and remaining battery level.

# Left Side and Bottom View



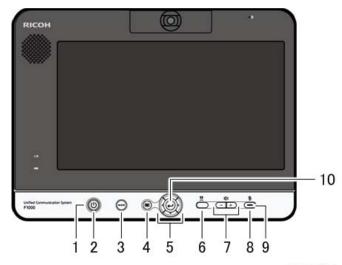
No.	Name	Main Function
1	Ethernet port	Port to which the 1000BASE-T, 100BASE-TX, or 10BASE-T cable connects. This port is used when connecting the machine to a wired network.
2	Analog RGB connector	Connector used to connect this machine to a video output device, such as a projector or monitor, via a RGB (VGA) connector.
3	Power connector	Connector for connecting the cord of the AC adapter.
4	Battery cover	Open this cover if attaching or removing the rechargeable battery.
5	Stand unit	Use this unit as a stand when using the machine.

### SIM Card



No.	Name	Main Function
1	SIM card	<ul><li>Used to back up network configuration</li><li>Used for terminal authentication</li></ul>
2	SIM card slot	Slot used to read and write to a SIM card

# **Control Panel**



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No.	Name	Main Function
1	Power indicator	Lights when the machine turns on.  This indicator blinks while the machine is starting up or shutting down.
2	Power key	Used to turn the machine on and off.
3	Disconnect key	Used to leave a meeting.
4	Menu key	Used to display the Menu screen.
5	Cursor keys (▲ ▼ ◀ ▶ key)	Used to select a menu, dialog, or setting.  These keys are also used to switch between screen layouts during a meeting.
6	Camera key	Used to change the display of the camera. (Wide display→Enlarged display→Camera mute)
7	Speaker volume keys ( <sup>- +</sup> key)	Used to adjust the speaker volume.
8	Mute key	Used to temporarily disable audio input on the machine.
9	Mute indicator	Flashes if the Mute key is used to disable the microphone.
10	Enter key	Used to activate the menu, setting, or set value selected with the cursor keys.  This key is also used to connect and leave a meeting.

# 2. Installation

# **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.
- This machine is not dust-proof or drip-proof. When using this machine outdoors, keep it away from
  dust and water drips. Do not subject the machine to direct sunlight, extreme temperature or
  humidity.

#### Preventing the deterioration of sound quality

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

#### About network environment

- A poor network environment can cause delays in video streaming during meetings.
- When using a wireless network, communication quality may deteriorate or communication
  may be lost, depending on the environment in which the machine is used. If these problems
  occur, use a wired network instead. To switch to a wired network, you must first turn the
  machine off and then turn it back on.

- When using a wireless network, radio or electromagnetic interference or weak reception may cause the following problems to occur during meetings:
  - Delays in video streaming.
  - Video is stopped.
  - · Audio of other party cuts out.
  - Synchronization between video and audio is lost.
  - Audio quality deteriorates.
  - Meetings are automatically ended or left.
  - Delays in video streaming occur when sharing computer screen.
  - Your video and the other party's video disappear and only audio is heard.
  - Screen image does not display properly when the screen layout is changed.
  - The 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.

If you experience trouble using the machine in a wireless network environment, take the following remedial actions:

- If wireless network environment has both an IEEE802.11b connection and IEEE802.11g connection, try the IEEE802.11b connection first.
- 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.
- The recommended line speed for the machine is 1 Mbps. To use the machine at a stable line speed, the recommended standard for connecting to a network is IEEE802.11g.
- This wireless product uses the 2.4 GHz band. Make sure there is no industrial, scientific, or medical equipment that uses the same frequency band currently in operation, such as a microwave. Interference can cause communication to become unstable. Before using

the machine, make sure that there is no equipment around that may potentially cause interference.

• If you experience radio interference or other wireless networking problems, please call the support desk.

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

Specification	Description
Temperature	Operating
	5 - 35°C (41°F-95°F)
	Non-operating
	0 - 43°C (50°F-109.4°F)
Humidity	Operating
	15 - 80% (Non-condensing)
	Non-operating
	10 - 90% (Non-condensing)
Maximum Altitude	3048m (10,000 feet)

# **Operating Environment for This Machine**

The following operating environments are required to use this machine:

#### Network

Specification	Operating environment	
Interface	Network with one of the following interfaces that can connect to the Internet	
	Wired Network	
	10BASE-T, 100BASE-TX, 1000BASE-T	
	Wireless Network	
	IEEE802.11g, IEEE802.11b, IEEE802.11n	
Line speed Minimum: 500 Kbps, Recommended: 1 Mbps or higher		
Port	The following port numbers are available for communication:	
	When no proxy is used	
	TCP: 80, 443, 5222, 17990, 17992	

Specification	Operating environment
	UDP: 50000 - 65535 <sup>*1</sup> • When a proxy is used TCP: 443
Frequency Range (Wireless Network)	<ul> <li>For mainly Europe and Asia</li> <li>2412 MHz - 2472 MHz (Ch1 - Ch13)</li> <li>For mainly North America</li> <li>2412 MHz - 2462 MHz (Ch1 - Ch11)</li> </ul>
Authentication (Wireless Network)	<ul> <li>Authentication method</li> <li>Open system authentication, shared key authentication,</li> <li>WPA-PSK, WPA2-PSK, WPA-EAP, WPA2-EAP</li> <li>Encryption method</li> <li>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.



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

#### **Analog Audio Input Device**

Specification	Operating environment
Supported device	Microphone or headset
Interfaces	Audio input



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

#### **Analog Audio Output Device**

Specification	Operating environment
Supported device	Headphones or headset
Interfaces	Audio output



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

#### Digital Audio Input/Output Device

9	
Specification	Operating environment
Supported device	USB microphone speaker
Interfaces	USB (type A)



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

#### **Video Input Device**

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



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

#### **Video Output Device**

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



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

# **Checking the Package Contents**

The product package contains the following items:

Packo	age Contents
Unified Communication System P1000 (this machine)	e0a2r2060
Rechargeable battery	e0a2r2061
AC adapter	e0a2r2062

Packa	ge Contents
USB cable	e0a2r2063
Bag	e0a2r2064
Accessory bag	e0a2r2065
Power plug	NA: Type A EU: Type C, BF, O, A
Quick Guide	
Read This First	
Other documents	
SIM card (pre-installed in the machine)	



- Use the USB cable to share your computer screen. For details, see "Sharing the Computer Screen", Features Reference.
- Be sure to use the AC adapter, Power plug and USB cable that come with this machine.
- When placing this machine in the supplied bag, be sure to remove all cables and the AC adapter.

# **Contact Address registration**

Before having a meeting, you need to register the other party as a contact in Address Book in Device Management Settings.

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

- 1. Log in to Device Management Settings (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.
- 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, they are added as a contact to Address Book.

To cancel the registration request, click ."Cancel".



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

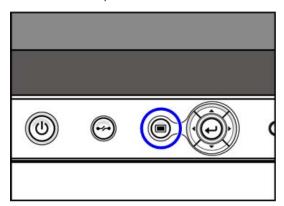
# **Using the Menus**

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".

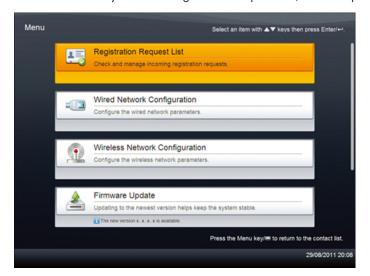
### **Registration Request List**

1. Press the Menu key.



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



- 3. Press the ▼ or ▲ key to select the contact you want to accept, and then press the Enter key.
- 4. Press the ♥ or ▲ key to select "Accept", and then press the Enter key.

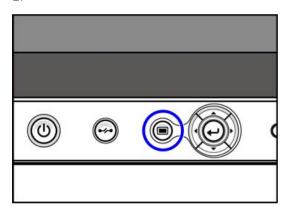
Press the ▼ or ▲ key to select "Accept", and then press the Enter key.
 The accepted contact is added to the Address Book.



- 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

1. Press the Menu key if Site List screen is displayed. If the Menu screen is displayed, proceed to step 2.



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



- 3. Press the ▼ or ▲ key to select setting you want to change, and then press the Enter key.
- 4. 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**

- 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 pres 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.

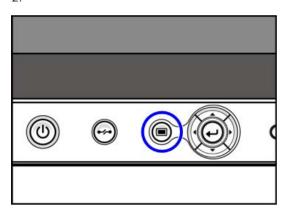
If "Use Proxy Authentication" is set to Yes, enter the user name and password.

This machine only supports Basic authentication as proxy authentication.

### Firmware Update

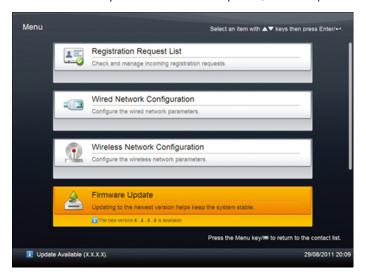


- Do not press and hold the Power key or remove the power cord during the update.
- If connection with the network is lost during an update, the update will fail. We recommend performing the update in a wired network environment.
- If a required firmware update is detected when the machine starts, the 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. Press the Menu key if Site List screen is displayed. If the Menu screen is displayed, proceed to step 2.



e0a2r2075

2. Press the ♥ or ▲ key to select "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 all the updates 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**



• 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.



e0a2r2090

#### 1. Machine Information

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

#### 2. Network

• Wired Network MAC Address

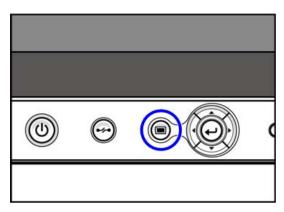
2

Indicates the MAC address of the machine when it is connected to a wired network.

Wireless Network MAC Address
 Indicates the MAC address of the machine when it is connected to a wireless network.

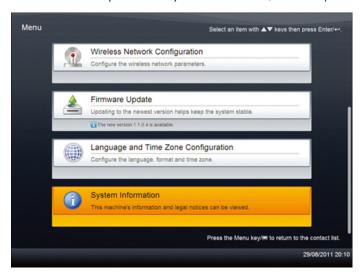
#### 3. Product Information

- Web Site URL
   Indicates 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.
- SIM backup and restoration (page 41 "Network Configuration Backup/Restore")
- 1. Press the Menu key if Site List screen is displayed. If the Menu screen is displayed, proceed to step 2.



e0a2r2075

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



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.



e0a2r2091

- 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.

# **Operating Environment for Device Management Settings**

The following environment is required to access Device Management Settings:



• Device Management Settings can be accessed without needing to turn on the machine.

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
OS*1	<ul> <li>Windows XP (Service Pack 3 or later) Windows XP Home Edition Windows XP Professional</li> <li>Windows Vista (Service Pack 2 or later) Windows Vista Home Basic Windows Vista Home Premium Windows Vista Business Windows Vista Enterprise Windows Vista Ultimate</li> <li>Windows 7 Windows 7 Home Premium Windows 7 Professional Windows 7 Enterprise Windows 8 Windows 8 Windows 8 Windows 8 Pro Windows 8 Enterprise</li> </ul>

Specification	Operating environment
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
	Safari 6.0
Security settings	The following security settings must be enabled on your Web browser:
	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

# **Logging in to Device Management Settings**

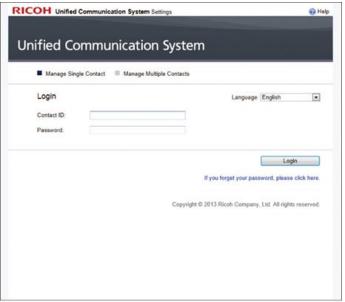
To manage Address Book or check Meeting History in Device Management Settings, you must first log in to Device Management Settings.

Device Management Settings can be accessed from a computer that is connected to the Internet.

#### Login

- 1. Start your Web browser.
- 2. Enter the following URL in the address bar of your web browser to access Device Management Settings.

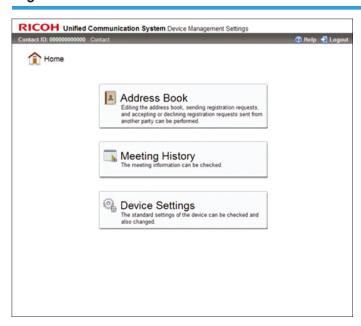
https://ucs.ricoh.com/util/login



e0a2r2092

- 3. Select the Language.
- 4. Enter the Contact ID and the password.
- 5. Click "Login".

#### Logout



1. Click "Logout".

#### **Managing Address Book**

Address Book in Device Management Settings is used to manage the contacts with whom you want to have meetings.

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

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

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

Name of contact is only reflected in the Address Book and the machine.

The maximum number of entries in the Address Book is 100. This number includes the number of registration requests waiting to be accepted.

#### Address Book screen



e0a2r2076

#### 1. List of registered contacts

Displays a list of registered contacts.

Clicking the table column header "Contact ID" sorts rows by ID number, and clicking "Name" sorts rows in the order of reading. The rows are sorted in alphabetical order by default.

#### 2. Registration requests

Displays the contacts that have sent registration requests, as well as the registration requests that have been received.

It is not displayed if registration requests that have not been received or sent.

#### 3. Edit/Delete

Used to edit or delete registered contacts.

# 3. Replacement and Adjustment

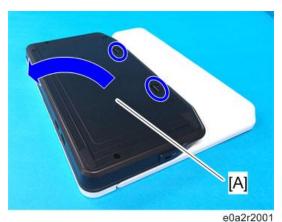
# **Network Configuration Backup/Restore**



 Please be aware, 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.

#### SIM replacement

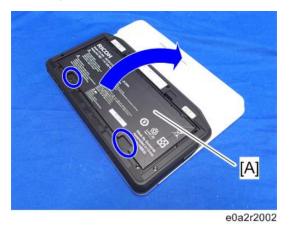
 Turn the machine top side down with the display unit folded, and then open the battery cover [A].



2. Remove the loss prevention strap [A] and remove the battery cover ( \*x1)



#### 3. Li-Battery Pack [A]



#### 4. SIM card [A]



• Push the SIM card in the direction of the dashed blue arrow, and then pull it in the direction of the solid blue arrow.



UNote

• When installing a SIM card, insert the card until it clicks into place.

### Network configuration backup

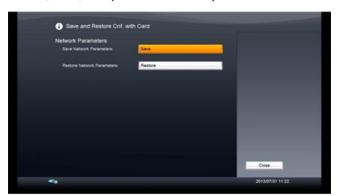
- 1. Turn the machine on.
- 2. When the machine starts up, press the Menu key.
- 3. Use the [♥] key to select [System Information] and press the Enter key.

4. Select [Save and Restore Configuration with the card ] and press the Enter key.



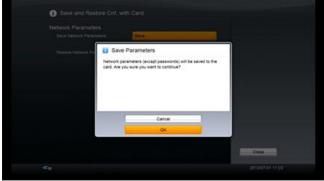
e0a2r2100

5. Select [Save] and press the Enter key.



e0a2r2101

6. When the confirmation dialog box appears, select [OK] and press the Enter key.



e0a2r2102

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



e0a2r2103

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



e0a2r2104

# Network configuration restore

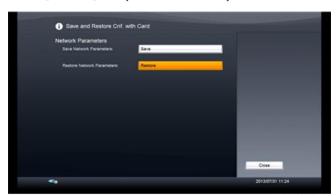
- 1. Turn the machine on.
- 2. When the machine starts up, press the Menu key.
- 3. Use the [♥] key to select [System Information] and press the Enter key.

4. Select [Save and Restore Configuration with the card ] and press the Enter key.



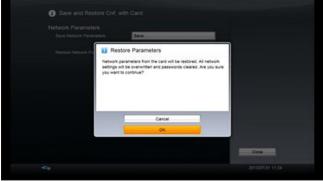
e0a2r2100

5. Select [Restore] and press the Enter key.



e0a2r2105

6. When the confirmation dialog box appears, select [OK] and press the Enter key.



e0a2r2106

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



e0a2r2107

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



e0a2r2108

#### 3

# **Parts Replacement**

#### **ACAUTION**

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



• Types of screws used in this machine are as follows:

M2.5×4L
M2.0×3L

#### **Battery Cover**

1. Turn the machine top side down with the display unit folded, and then open the battery cover [A].



2. Remove the loss prevention strap [A] and remove the battery cover (  $\mathscr{F} \times 1$  )



#### **Li-Battery Pack**

- 1. Battery cover (page 47 "Battery Cover")
- 2. Li-Battery Pack [A]



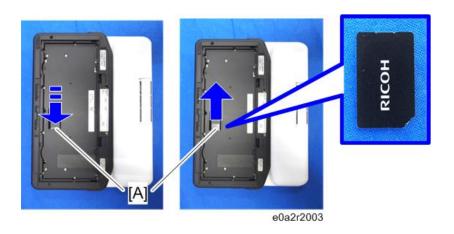
e0a2r2002

#### SIM Card

- 1. Li-Battery Pack (page 48 "Li-Battery Pack")
- 2. SIM card [A]



• Push the SIM card in the direction of the dashed blue arrow, and then pull it in the direction of the solid blue arrow.



# Top Cover

- 1. SIM card (page 48 "SIM Card")
- 2. Remove the screws ( ×9)

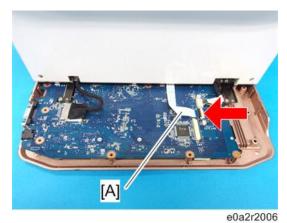


e0a2r2004



# **Operation Unit Cover**

- 1. Top cover (page 49 "Top Cover")
- 2. Unplug the FFC [A].



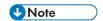
J

3. Fold the display unit and then turn the machine top side down to remove the screws ( \*x4)

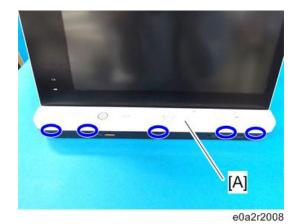


e0a2r2007

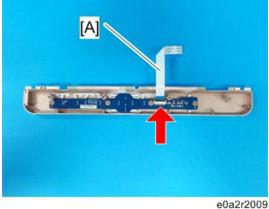
4. Turn the machine top side up and then unfold the display unit to remove the operation unit [A] by pushing it.



• Be aware of clamps that are circled in blue.

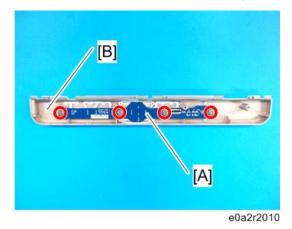


# 5. FFC [A] (□□×1)



3302.2000

6. Remove the switch board [A] from the operation unit cover [B] ( \*x4)



FFC

1. Operation unit cover (page 50 "Operation Unit Cover")

Switch Board

1. Operation unit cover (page 50 "Operation Unit Cover")

Display Unit

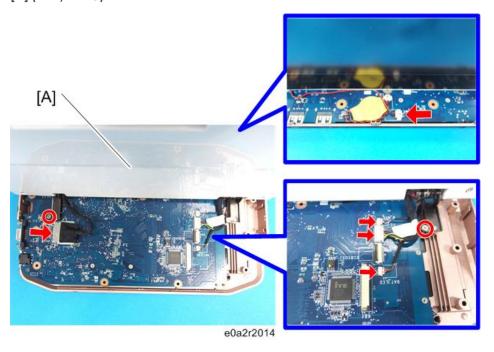
1. Operation unit (page 50 "Operation Unit Cover")

2. Turn the machine top side down to remove the screws ( \*x4)



e0a2r2013

3. Turn the machine top side up and then unfold the display unit to remove the display unit [A] ( \*x2, \*x5)



**U** Note

- Please never attempt to remove the RTC battery from the main board. If you removed, you can not repair the failure.
- The display unit is connected to the main board with the antenna wires. When removing the display unit, be careful not to pull the wires with excessive force or break them.

#### 4. Main board [A] ( \*\*2)

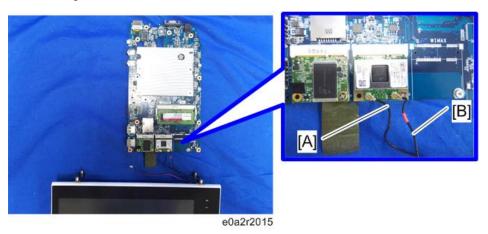


**U** Note

- Please never attempt to remove the RTC battery from the main board. If you removed, you can
  not repair the failure.
- 5. Turn the main board top side down to remove the antenna wires [A] [B] (Antenna wire×2)



- When you install the main board, make sure that the short antenna wire [A] comes to the front side and the long antenna wire [B] comes to the rear side on the main board.
- The long antenna wire [B] is marked in red.

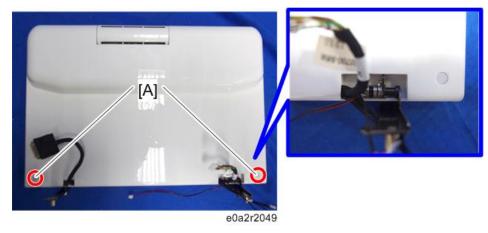


#### **Bottom Cover**

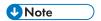
1. Display unit (page 52 "Display Unit")

# **Display Unit Rear Cover**

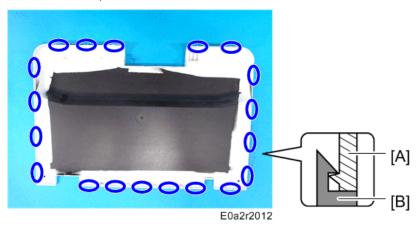
- 1. Display unit (page 52 "Display Unit")
- 2. Blindfold sticker [A] (Sticker×2)



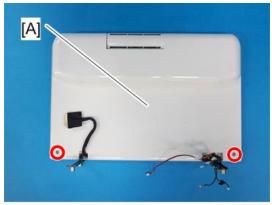
3. Display unit rear cover ( \*x2)



• Be aware of clamps that are circled in blue.



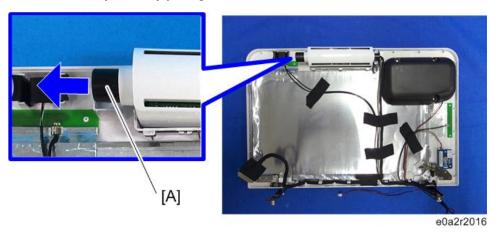
- [A]: Display unit rear cover side
- [B]: Display unit front cover side



E0a2r2011

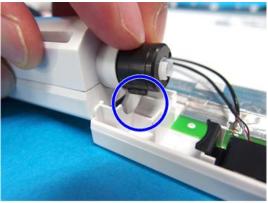
#### Damper

- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. Remove the damper [A] by pulling it.



**U** Note

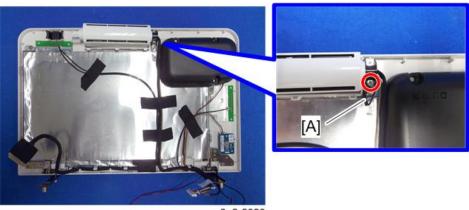
• When you install the damper, make sure that the damper fits in the dent on the display unit front cover.



e0a2r2017

#### Camera Unit

- 1. Damper (page 56)
- 2. Remove the screw that secures the ground cord [A] ( $\mathscr{F}$ ×1)

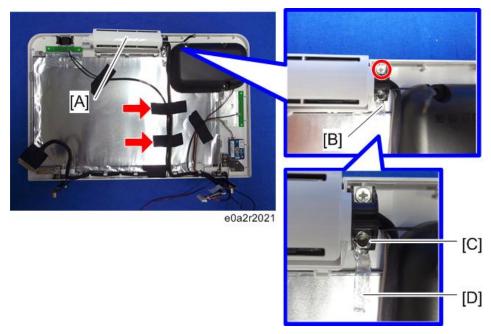


e0a2r2020

3. Camera unit [A] ( \*\bar{\epsilon} \times 1 , Tape strip \times 2 )



- We recommend leaving the tape strips without completely peeling off, as they will be reused when you install the camera unit.
- The ground sticker [B] from the LCD panel is glued onto the camera unit. Carefully remove the
  ground sticker [C] on the side of the camera unit. Do not remove the ground sticker [D] on the
  side of the LCD panel.





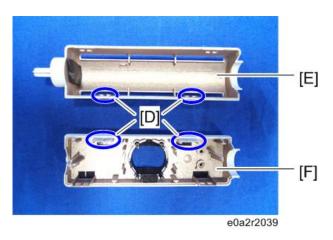
• When you install the camera unit, be sure to secure the ground cord.

#### Camera Unit Rear Cover

- 1. Camera unit (page 57 "Camera Unit")
- 2. Insert an adjustment screwdriver or such into a slit [A] on the upper rear of the camera unit, and then remove the camera unit rear cover [C] from the camera unit front cover [B].



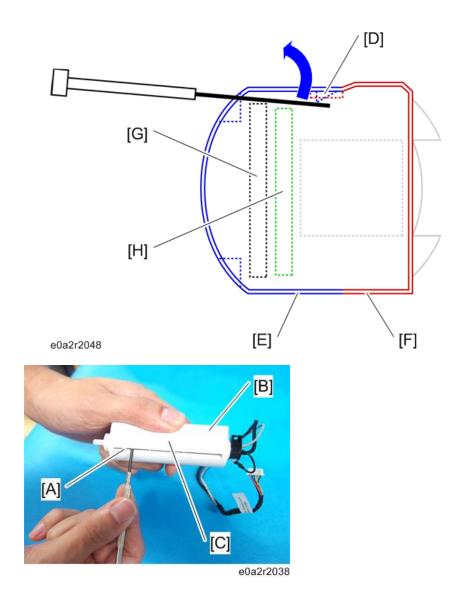
• There are clamps that are circled in blue. Removing the clamps [D] at the top allows you to remove the camera unit rear cover, without removing the clamps at the bottom.



- [E]: Camera unit rear cover
- [F]: Camera unit front cover
- When inserting an adjustment screwdriver into a slit, the screwdriver will touch the heat sink (black) [G], which is normal. But be careful not to damage the camera board [H] which is under the heat sink. After inserting the adjustment screwdriver, move it in the direction of the blue arrow.



e0a2r2047



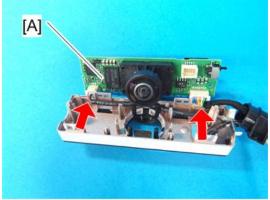
#### Camera Unit Front Cover

1. Leaf spring (page 63 "Leaf Spring")

#### Camera

1. Camera unit rear cover (page 58 "Camera Unit Rear Cover")

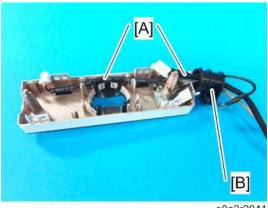
# 2. Camera [A] (🕮×2)



e0a2r2040

#### Camera Cable

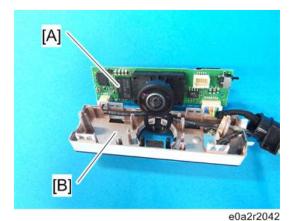
- 1. Camera (page 60 "Camera")
- 2. Pull out the camera cable [A] from the harness guide [B].



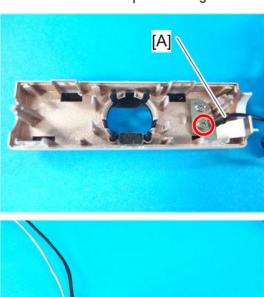
e0a2r2041

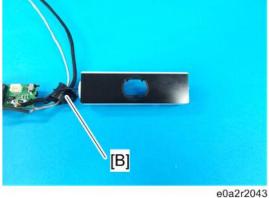
#### **Ground Cord**

1. Camera unit rear cover (page 58 "Camera Unit Rear Cover")



3. Remove the screw and pull out the ground cord [A] from the harness guide [B] ( \*x1)

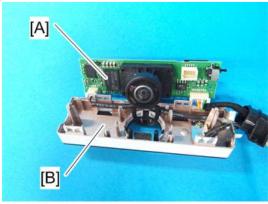




#### 3

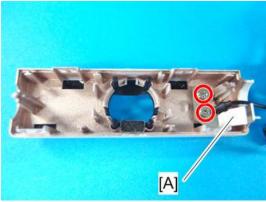
# **Leaf Spring**

- 1. Camera unit rear cover (page 58 "Camera Unit Rear Cover")
- 2. Remove the camera [A] from the camera unit front cover [B].



e0a2r2042

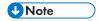
3. Leaf spring [A] ( \*x2)



e0a2r2044

# Speaker

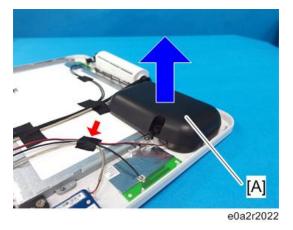
- 1. Display unit rear cover (page 58 "Camera Unit Rear Cover")
- 2. Speaker [A] (Tape strip×1)



• The speaker is not secured with screws.

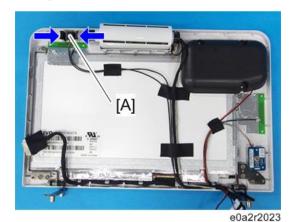


• We recommend leaving the tape strip without completely peeling off, as it will be reused when you install the speaker.



# Microphone Cover

- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. Microphone cover [A]



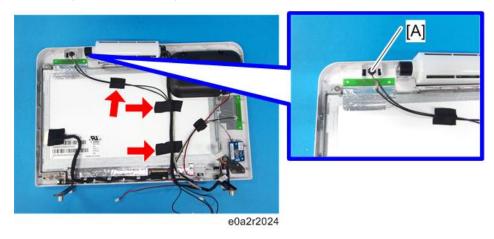
# Microphone

1. Microphone cover (page 64 "Microphone Cover")

#### 2. Microphone [A] (Tape strip×3)

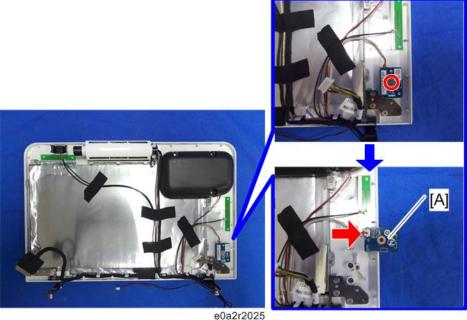


• We recommend leaving the tape strips without completely peeling off, as they will be reused when you install the microphone.



#### **LED Board**

- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. LED board [A] ( \*1, \*1 \*1)



#### **LED Cable**

- 1. LED board (page 65 "LED Board")
- 2. LED cable [A] (Tape strip×1)



• We recommend leaving the tape strip without completely peeling off, as it will be reused when you install the LED cable.

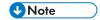


# **Display Unit Front Cover**

- 1. LCD panel unit (page 68 "LCD Panel")
- 2. Microphone (page 64 "Microphone")
- 3. Camera unit (page 57 "Camera Unit")
- 4. LED cable (page 66 "LED Cable")

#### Antenna: AUX-Right

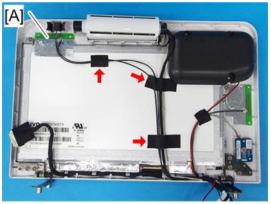
- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. Remove the antenna: AUX-right [A] with the silver tape (Tape strip×3)



• Remove the antenna: AUX-right carefully, as it is stuck to the display unit front cover and the LCD panel unit.



• We recommend leaving the tape strips without completely peeling off, as they will be reused when you install the antenna: AUX-right.



e0a2r2027

#### **Antenna: Main-Left**

- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. Remove the antenna: main-left [A] with the silver tape (Tape strip×1)



• Remove the antenna: main-left carefully, as it is stuck to the display unit front cover.



 We recommend leaving the tape strip without completely peeling off, as it will be reused when you install the antenna: main-left.



e0a2r2028

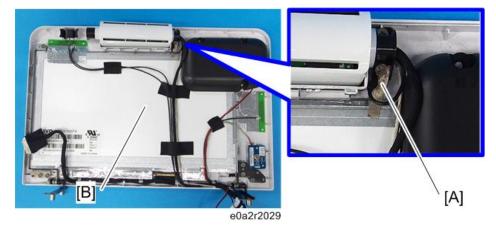
3

#### **LCD Panel**

1. Peel off the protective seal for the ground cord [A] from the LCD panel unit [B].



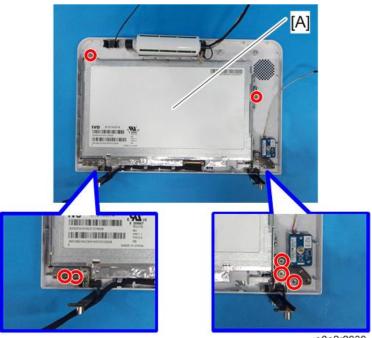
 We recommend partially leaving the protective seal unpeeled from the area where the seal is stuck to the camera unit, as it will be reused when you install the LCD panel unit.



- 2. Speaker (page 63 "Speaker")
- 3. Antenna: AUX-right (page 66 "Antenna: AUX-Right")
- 4. Antenna: main-left (page 67 "Antenna: Main-Left")

#### 3

# 5. LCD panel unit [A] ( \*×7)



e0a2r2030

# 6. Display unit hinge-right [A] ( M2×3 Screw×2)



e0a2r2031



8. LCD cable (page 72 "LCD Cable")

#### **New LCD Panel**

When installing a new LCD panel, stick face shielding aluminum foil onto the LCD panel.

1. Tear release paper of tape on aluminum foil[A].



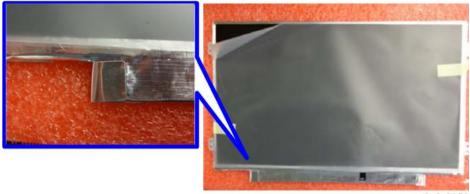
e0a2r2050

### 2. Stick Aluminum foil on back of LCD.



e0a2r2051

3. Trun Panel as top then fold and stick lower left aluminum foil well.



e0a2r2052

4. Fold and stick lower right aluminum foil well.



71

## **Display Unit Hinge-Right**

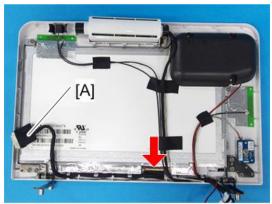
1. LCD panel (page 68 "LCD Panel")

## Display Unit Hinge-Left

1. LCD panel (page 68 "LCD Panel")

## LCD Cable

- 1. Display unit rear cover (page 55 "Display Unit Rear Cover")
- 2. LCD cable [A] (🕬×1)



e0a2r2033

### Main Board

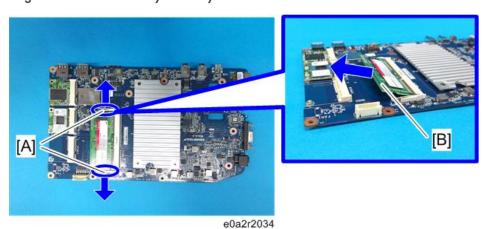
1. Display Unit (page 52 "Display Unit")

## Memory

1. Main board (page 72 "Main Board")

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2. Release the locking lever [A] by pulling it outward and the memory [B] is lifted at an angle. Pull out the memory carefully.

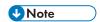




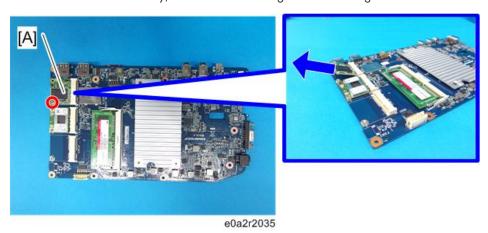
• When you install the memory, insert the memory diagonally and then gently push it down until it is locked.

## SSD

- 1. Main board (page 72 "Main Board")
- 2. SSD [A] ( \*1)



• Pull out the SSD carefully, as it is lifted at an angle after removing the screw.



**U** Note

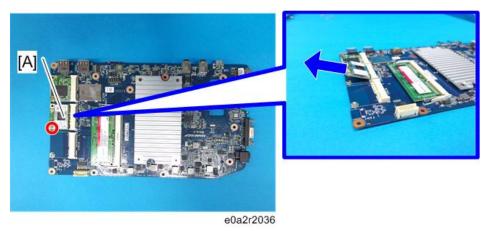
• When you install the SSD, insert the SSD diagonally and then secure it with the screw.

## Wi-Fi Board

- 1. Main board (page 72 "Main Board")
- 2. Wi-Fi board [A] ( \*\* 1)



• Pull out the Wi-Fi board carefully, as it is lifted at an angle after removing the screw.

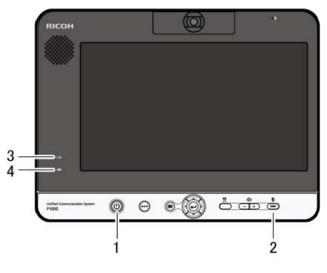


**U** Note

• When you install the Wi-Fi board, insert the Wi-Fi board diagonally and then secure it with the screw.

# 4. Troubleshooting

## **LED Behavior and Meaning**



e0a2r2080

### LED type

1	No.	Name	LED
	1	Power indicator	Blue
	2	Mute indicator	Blue
	3	Battery level indicator	Red
	4	Battery charge indicator	Blue

### LED Behavior during Power-Up

When the machine is turned on, all of the LEDs light up for 0.5 seconds to verify they are operating normally.

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

### Power indicator

Status	LED	Interval of blinking
Power off	Not lit	-

Status	LED	Interval of blinking
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	
External mic.	Not lit	Not lit	

### **Battery level indicator**

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

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



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

## Battery charge indicator

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

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

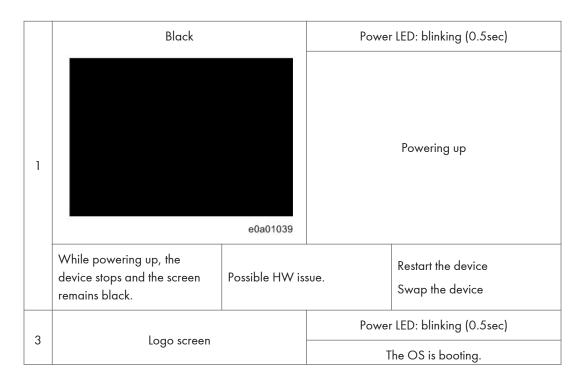
### 4

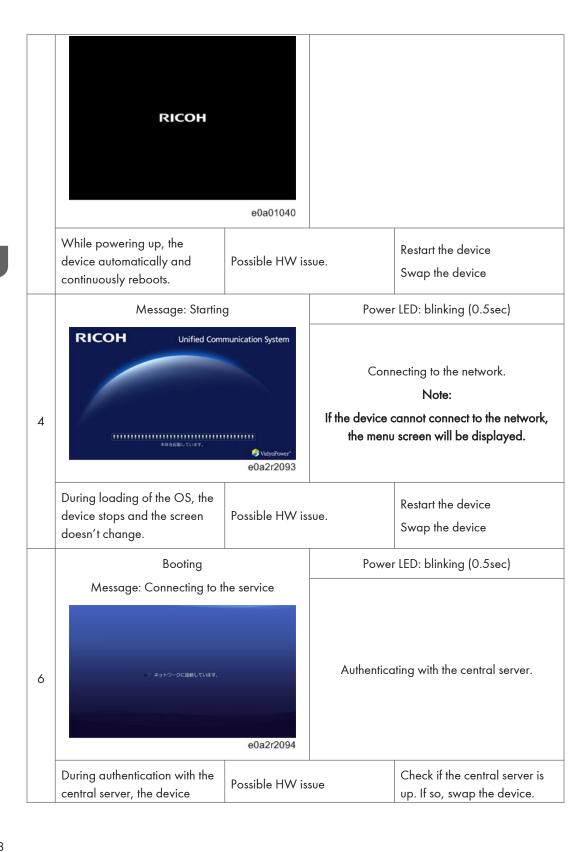
## **Error table**

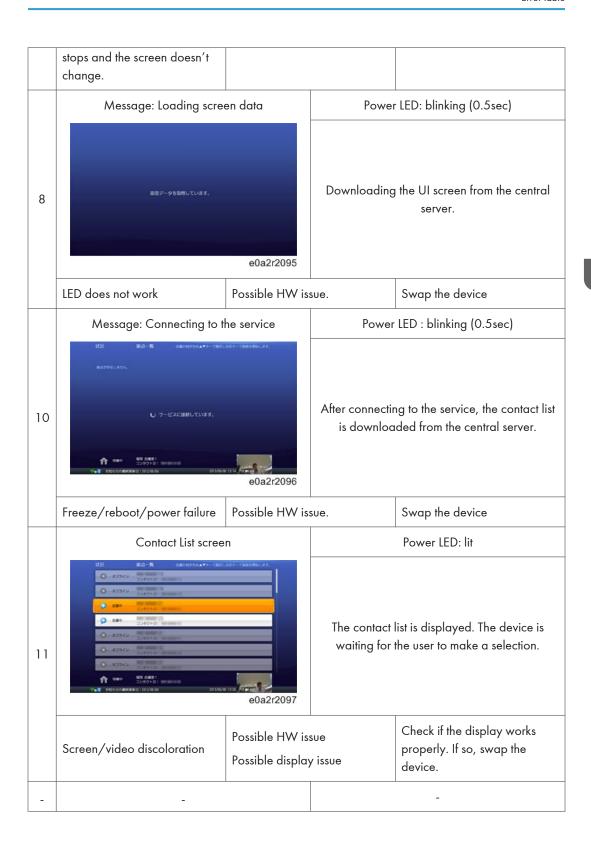
## Boot sequence and errors

## **Explanatory notes**

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







				-
	Buttons do not work.	Possible HW is	sue.	Swap the device
				-
-	-			-
	No output from the camera.	Possible HW is	sue	Swap the device
				-
	-			-
-	The sound/video being received from other parties is not clear.	Possible HW is Possible netwo		Check if the network connection being used by both parties has sufficient bandwidth. If so, swap the device
				-
	-			-
-	Cannot connect to the network.  Possible network is			After network problems have been ruled out, swap the device.
				-
	-			-
-		Possible HW is	sue	
	No sound. Possible network issue		rk bandwidth	Swap the device
				-
	-			-
-	Unable to share a PC screen.  Possible HW is: PC Screen share installed			Make sure that the PC screen share driver is installed properly.  After the problems with the PC have been ruled out, swap the device.

## Error Message

## **Explanatory notes**

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

0001		The device is not permitted to be used.
	Machine Locked Please call the support desk.	Problem with the users account status. It might have expired or is unpaid.
		Make sure the account is active.
	Not Connected to the Network Failed to update the firmware.	Failed to connect to the network after failed to update the firmware.
0000	, ,	Network error
0002	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.	Try updating the firmware to the latest version.
	Failed to Connect to 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.	The device boots up with no network connection.
		Network error
0003		Make sure that the device is properly configured for the network environment.  Refer to the network troubleshooting sheet.
	Network Connection Disconnected	Network disconnected during power up.
	The machine has been disconnected from the network due to a network error.	
0004	It may have been caused by the following. The wireless signal may be too weak. The network cable may be disconnected.	Network error
	Please check the network and then restart the machine.	

		Refer to the network troubleshooting sheet.
	Error on Starting the Machine Restart the machine.	Authentication failed.
0005		Proxy setting is not correct.  Authentication server failure.
0003		Make sure that the device is properly configured for the network environment.
		Refer to the network troubleshooting sheet.
		Error occurred during boot up.
0007	Error on Starting the Machine	HW error.
	Restart the machine.	Restart the device. If the error persists, swap the device.
	Network Connection Disconnected  The machine has been disconnected from the	Accessing to central server failed during power up.
	network 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 restart the machine.	Network error
0008		Refer to the network troubleshooting sheet.
	Cannot Share the PC Screen Restart the machine.	Application for PC screen share in the device error.
0011		Application error
		Restart the device. If the error persists, swap the device.
	Error Occurred, Please Restart the Machine	-
0101		HW error
0101	Endi Occorred, riedse kesidir ille Macilille	Restart the device. If the error persists, swap the device.
	Not Connected to the Network	DNS error
0102	Due to a DNS error the machine could not connect to the network.	DNS error

	It may have been caused by the following. The DNS server configuration is not correct. Please check it and then restart the machine.	Check that the device is properly configured to access a DNS server.  Check that the DNS server is functioning and that the name being resolved exists.
0103	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.	Network connection disconnected by physical cause. Or an error happens in the central server. Central server or network error Refer to the network troubleshooting sheet.
	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.	Network connection disconnected by the network environment  Network error
0104		Refer to the network troubleshooting sheet.
	Not Connected to the Network  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.	Proxy authentication error
0105		Proxy setting is wrong
0103		Make sure that the device is properly configured for proxy authentication.
	Error Occurred  Press and hold the Power key for more than 4 seconds to restart the machine.	User operation is ignored when this error is displayed.
0106		HW error
		Restart the device. If the error persists, swap the device.
0001	Error occurred	Unknown
0201	Restart the machine.	HW error

		Restart the device. If the error persists, swap the device.
	Network Connection Disconnected  The machine has been disconnected from the network due to a network error.	Network disconnected. If OK is clicked, the device tries to connect to the network again.
		Network error
0202	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].	Refer to the network troubleshooting sheet.
	The machine will then try to connect to the network again.	
		System error occurred.
0203	Error Occurred, Please Restart the Machine	System bug.
		Restart the device. If the error persists, swap the device.
	Error Occurred  Leave the meeting and restart the machine.	Unknown
0204		There is a low possibility of network error.
		Refer to the network troubleshooting sheet.
	Not Connected to the Network Failed to connect to the network.	If network setting is changed and they are invalid, this error is shown.
	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.	Central server or network error
0205		Refer to the network troubleshooting sheet.
	Error Occurred  Leave the meeting and restart the machine.	System error occurred during a meeting.
0206		System error.
		Restart the device. If the error persists, swap the device.
1501	Error While Preparing	Internal error occurred in the continuity test.

		Faulty network configuration
		Faulty network environment
		Center service
		System error
	Internal error occurred in connection check	Machine failure
		Restart the machine and then make sure that the machine works properly.
		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> </ul>
		Make sure that there is no failure in the center.
		If the above solutions do not solve the issue, the error involves a machine failure.
		Authentication service connection error occurred.
		Faulty network configuration
	Error While Preparing Failed to initialize.	Faulty network environment
		Center service
		System error
		Machine failure
1502		Restart the machine and then make sure that the machine works properly.
		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> </ul>
		Make sure that there is no failure in the center.
		If the above solutions do not solve the issue, the error involves a machine failure.

		UDC service connection error or VIDYO service connection error occurred.
		Faulty network configuration     Faulty network environment
		Center service
		System error
		Machine failure
1503	Error While Preparing Failed to connect to the service.	Restart the machine and then make sure that the machine works properly.
		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> </ul>
		Make sure that there is no failure in the center.
		<ul> <li>If the above solutions do not solve the issue, the error involves a machine failure.</li> </ul>
		UDC service connection error or VIDYO service connection error occurred.
		Faulty network configuration
		Faulty network environment
		Center service
		System error
1504	Error While Preparing	Machine failure
1504	Failed to connect to the service.	Restart the machine and then make sure that the machine works properly.
		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> </ul>
		Make sure that there is no failure in the center.

		If the above solutions do not solve the issue, the error involves a machine failure.
1505	Error While Preparing No response from the service.	Faulty network configuration     Faulty network environment     Center service     System error     Machine failure      Restart the machine and then make sure that the machine works properly.     Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.      Make sure that there is no failure in the center.      If the above solutions do not solve the issue, the error involves a machine failure.
1506	Error While Preparing Some error occurred with this terminal	STATE error occurred.  Faulty network configuration Faulty network environment Center service System error Machine failure  Restart the machine and then make sure that the machine works properly. Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.  Make sure that there is no failure in the center.

		If the above solutions do not solve the issue, the error involves a machine failure.
1511	Error While Connection Check The connection to the service has been disconnected.	UDC service or VIDYO service was disconnected.
		<ul> <li>Faulty network configuration</li> <li>Faulty network environment</li> <li>Center service</li> <li>System error</li> <li>Machine failure</li> </ul>
		<ul> <li>Restart the machine and then make sure that the machine works properly.</li> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> <li>Make sure that there is no failure in the center.</li> <li>If the above solutions do not solve the issue, the error involves a machine failure.</li> </ul>
		VIDYO service error occurred.
1512	Error While Connection Check Failed to send and/or receive picture.	<ul> <li>Faulty network configuration</li> <li>Faulty network environment</li> <li>Center service</li> <li>System error</li> <li>Machine failure</li> </ul>
		<ul> <li>Restart the machine and then make sure that the machine works properly.</li> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> <li>Make sure that there is no failure in the center.</li> </ul>

		<ul> <li>If the above solutions do not solve the issue, the error involves a machine failure.</li> </ul>
		Internal error occurred in the continuity test.
1513	Error While Connection Check Internal error occurred in connection check	<ul> <li>Faulty network configuration</li> <li>Faulty network environment</li> <li>Center service</li> <li>System error</li> <li>Machine failure</li> <li>Restart the machine and then make sure that the machine works properly.</li> </ul>
		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> <li>Make sure that there is no failure in the center.</li> </ul>
		If the above solutions do not solve the issue, the error involves a machine failure.
	Check the Microphone Speaker  If the microphone speaker does not work properly then please restart the machine.	The device couldn't recognize the external microphone speaker. Restart might not be needed.
0301		HW (Microphone Speaker) error
		Reconnect the Microphone Speaker and restart the device. If the microphone speaker does not work properly, swap the device.
0302		The device couldn't recognize the external microphone speaker. Restart is needed.
	Error Occurred, Please Restart the Machine	HW (Microphone Speaker) error
		Reconnect the Microphone Speaker and restart the device. If the microphone speaker does not work properly, swap the device.
0401	Error While Configuring	-

	Please restart the machine.	-
		-
	Error While Configuring	-
0402	Error While Configuring  Please configure it again.	-
	<u> </u>	-
0501	Failed to Start Meeting There may be a problem either with the	Some parties have performed the same operation (called each other) simultaneously.
	network or you and another party have performed an operation simultaneously.	Central server or network error
	Please try again.	Refer to the network troubleshooting sheet.
	Disconnected from the Meeting	There is a high possibility that an error occurred because of other than network disconnection.
	The machine has been disconnected from the meeting due to a network error.	
0503	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.	Central server or network error
0303		Refer to the network troubleshooting sheet.
	Disconnected from the Meeting  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.	Network disconnected during a meeting. If you click OK, the device tries to connect to the network again.
		Central server or network error
0504		
	Please check the network and then select [OK].	Refer to the network troubleshooting sheet.
	The machine will then try to connect to the network again.	
	Information Unavailable	Failed to download contact list view from central server.
0509	Switch the screen layout again.	Central server or network error
		Refer to the network troubleshooting sheet.

0510	Failed to Switch Screen Layout Switch the screen layout again.	Failed to change the screen layout during a meeting.
		Central server or network error
		Restart the device. If the error persists, swap the device.
		Failed to save network setting configuration.
0601	Failed to Save Configuration Select [Cancel] to return to the Configuration	HW error
	Menu and then change the settings again.	Restart the device. If the error persists, swap the device.
	Failed to Obtain IP Address Automatically	Failed to save network setting configuration.
	The configuration has been saved, but the machine failed to obtain the IP address. It	Network error
	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.	(Failed to obtain IP address)
0602		Make sure that the device is properly configured for the network environment. (DHCP/DNS)
	Failed to apply Wired Setting	Failed to apply the wired network configuration.
		Faulty network configuration
		Faulty network environment
		System error
0604	Select [Cancel] to return to the Configuration	Configure the settings again.
	Menu and then change the settings again.	If the error persists, restart the machine and then configure the settings again.
		Make sure that the network settings are properly configured.
		<ul> <li>Make sure that network devices, including hubs and routers, are working properly.</li> </ul>

		<ul> <li>If no problem was found when performing the above items, the error involves a machine failure.</li> </ul>
		Failed to save the wired network configuration.
	Failed to save Wired Setting	System error
0605	Select [Cancel] to return to the Configuration	Configure the settings again.
	Menu and then change the settings again.	<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		If the error persists, the error involves a machine failure.
		Failed to apply the wireless network configuration.
	Failed to apply Wireless Setting Select [Cancel] to return to the Configuration Menu and then change the settings again.	Faulty network configuration
		Faulty network environment
		System error
		Configure the settings again.
0606		<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		<ul> <li>Make sure that the network settings are properly configured.</li> </ul>
		<ul> <li>Make sure that network devices, including hubs, routers and the wireless access point device, are working properly.</li> </ul>
		If no problem was found when performing the above items, the error involves a machine failure.
0607	Failed to save Wireless Setting Select [Cancel] to return to the Configuration Menu and then change the settings again.	Failed to save the wireless network configuration.
		System error
		Configure the settings again.
		If the error persists, restart the machine and then configure the settings again.

		If the error persists, the error involves a machine failure.
		Error occurred during saving the configuration after clicking [OK] in the Network Configuration screen.
	Failed to Save Configuration	System error
0608	Please configure it again.	Configure the settings again.
		<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		<ul> <li>If the error persists, the error involves a machine failure.</li> </ul>
		Failed to save the wired network configuration.
		System error
0609	Failed to save Wired Setting	Configure the settings again.
	Please configure it again.	<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		If the error persists, the error involves a machine failure.
	Failed to save Wireless Setting Please configure it again.	Failed to save the wireless network configuration.
		System error
0610		Configure the settings again.
		<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		If the error persists, the error involves a machine failure.
	Failed to apply Wired Setting Please configure it again.	Failed to apply the wired network configuration.
		Faulty network configuration
0611		Faulty network environment
		System error
		Configure the settings again.

		<ul> <li>and then configure the settings again.</li> <li>Make sure that the network settings are properly configured.</li> <li>Make sure that network devices, including hubs and routers, are working properly.</li> <li>If no problem was found when performing the above items, the error involves a machine failure.</li> </ul>
		Failed to apply the wireless network configuration.
		<ul> <li>Faulty network configuration</li> <li>Faulty network environment</li> <li>System error</li> </ul>
0612	Failed to apply Wireless Setting Please configure it again.	<ul> <li>Configure the settings again.</li> <li>If the error persists, restart the machine and then configure the settings again.</li> <li>Make sure that the network settings are properly configured.</li> <li>Make sure that network devices, including hubs, routers and the wireless access point device, are working properly.</li> <li>If no problem was found when performing the above items, the error involves a machine failure.</li> </ul>
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	Failed to send logs.  • Faulty network configuration  • Faulty network environment  • System error  • Center service
	report again.	Restart the machine and then make sure that the machine works properly.

		<ul> <li>Perform the connection test to make sure that the network configuration is correct and there is no problem in the network environment.</li> <li>Make sure that there is no failure in the center.</li> <li>If the above solutions do not solve the issue, the error involves a machine failure.</li> </ul>
	Failed to Process Registration Request	Error occurs while accepting the contact request.
0701	Accept or decline the registration request again.	Central server or network error
	again.	Refer to the network troubleshooting sheet.
	Check the Registration Request List	-
0702	If unprocessed requests exist please accept	Central server or network error
	or decline them again.	Refer to the network troubleshooting sheet.
	Error Occurred During Meeting	HW error occurs during a meeting. Restart is needed.
0801	Press the Disconnect key to leave the meeting.	HW error
		Restart the device. If the error persists, swap the device.
	Failed to Save Settings	Failed to save the configuration.
		System error
1601		Configure the settings again.
1001		<ul> <li>If the error persists, restart the machine and then configure the settings again.</li> </ul>
		If the error persists, the error involves a machine failure.
	Failed to Save Parameters	Failed to save the configuration to the SIM card.
1602	Failed to save the parameters to the card.	SIM card failure
		Machine failure

		<ul> <li>If the error persists after inserting the SIM card, insert other SIM card.</li> <li>If the error persists after inserting the other SIM card, the error involves a machine failure.</li> <li>If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.</li> </ul>
		Failed to restore the configuration from the SIM card.
		<ul><li>SIM card failure</li><li>Machine failure</li></ul>
	Earland to Pastora Paragrants	Insert the SIM card, if not inserted.
1603	Failed to Restore Parameters  Failed to restore the following settings from the card.	If the error persists after inserting the SIM card, insert other SIM card.
		<ul> <li>If the error persists after inserting the other SIM card, the error involves a machine failure.</li> </ul>
		<ul> <li>If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.</li> </ul>
		Failed to save the configuration to the SIM card.
1605		No SIM card is inserted.
		SIM card failure
	Failed to Save Parameters  Failed to save the parameters to the card.  Applying the network settings has been cancelled.	Machine failure
		Insert the SIM card, if not inserted.
		<ul> <li>If the error persists after inserting the SIM card, insert other SIM card.</li> </ul>
		<ul> <li>If the error persists after inserting the other SIM card, the error involves a machine failure.</li> </ul>
		<ul> <li>If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.</li> </ul>

	Failed to Share the PC Screen Please select [Start Sharing] on your PC again.	Failed to start PC screen share. Reboot is not necessary.
0902		HW error
		Restart the device. If the error persists, swap the device.
	PC Screen Share Error	PC screen share error occurred during meeting. It is possible to continue the meeting.
0904	To share the PC screen, leave the meeting and restart the machine.	HW error
	una resian me macimie.	Restart the device. If the error persists, swap the device.
	Disconnected from the Network	Error occurred during boot up.
	The machine has been disconnected from the network. It may have been caused by the	Network error
1001	following. The network bandwidth may be insufficient. The wireless signal may be too weak. The network cable may be disconnected.	Refer to the network troubleshooting sheet.
	Please check the network.	
		Failed to complete firmware update.
1002	Failed to Update the Firmware  Restart the machine and update the firmware again.	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		No SIM card is inserted.
1004- 0354 111	Error Occurred, Please Restart the Machine	SIM card was pulled out while it was in use.
		No SIM card is inserted.

System error  Machine failure  Restart the machine and then make sure that the machine works proper Insert the SIM card, if not inserted.  If the inserted SIM card is other that those for UCS, insert a SIM card for UCS.  If the error persists after inserting the SIM card, insert other SIM card.  If the error persists after inserting the other SIM card, the error involves a machine failure.  If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.  Invalid SIM card is inserted.  No SIM card is inserted.  No SIM card is inserted.  If the inserted SIM card is other that those for UCS.  SIM card failure  System error  Machine failure  Restart the machine and then make sure that the machine works proper linsert the SIM card, if not inserted.  If the inserted SIM card is other that the machine works proper linsert the SIM card, if not inserted.			SIM card failure
Machine failure      Restart the machine and then make sure that the machine works proper     Insert the SIM card, if not inserted.     If the inserted SIM card is other that those for UCS, insert a SIM card for UCS.      If the error persists after inserting the SIM card, insert other SIM card, the error involves a machine failure.      If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.      If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.  Invalid SIM card is inserted.      No SIM card failure      System error      Machine failure      Restart the machine and then make sure that the machine works proper      Insert the SIM card, if not inserted.      If the inserted SIM card is other that sure that the machine works proper      Insert the SIM card, if not inserted.			
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		<ul> <li>If the error does not occur after inserting the other SIM card, the error involves a SIM card failure.</li> </ul>
		-
1101	Error Occurred, Please Restart the Machine	System error
		Restart the device. If the error persists, swap the device.
		-
1102	Error Occurred	System error
	Leave the meeting and restart the machine.	Restart the device. If the error persists, swap the device.
	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.
1103		System error
		Restart the device. If the error persists, swap the device.
	Failed to Obtain Signal Strength	Failed to obtain wireless signal strength. Actually, it is highly possible that the device is connected to the network.
1104		System error
		Restart the device. If the error persists, swap the device.
	Failed to Obtain the System Information Restart the machine.	Failed to obtain the system information.
1201		System error
		Restart the device. If the error persists, swap the device.
1302	Failed to Update the Firmware.  Due to an error the machine could not update the firmware.  Please restart the machine and then update the firmware.	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 properly, swap the device.
	Network Disconnected During Update	Failed to update the firmware and to connect to the network after the reboot.
1303	The machine could not update the firmware.	Network error
	Please check the network, restart the machine and then update the firmware.	Try updating the firmware to the latest version.
	Failed to Obtain Firmware Update Info.	Failed to obtain firmware update information.
1304	To update the firmware, restart the machine.	Central server or network error
		Refer to the network troubleshooting sheet.
	Connection Failed. Could not connect with the following contact.	This error is shown when the call was rejected.
None		The call was rejected by the recipient.
		Call again.
	Discontinue Connection  The other contact(s) did not respond.	The call went through but the recipient did not pick up.
None		Call time out.
		Call again.
	Call Failed.	The number of participating clients has reached the limit of 20 when started calling.
None	The number of participating contacts has reached the maximum.	The number of participating clients has reached the limit of 20.
		Adjust the participants.
None		-
	Call Failed. Call Again.	The caller was deleted from the recipient's contacts list right as the call was being placed.
		Or the status of the receiver is changed when the call was being placed.

		Call again.
None	Connected USB Device is Inactive.  To use the external microphone speaker please connect it before starting the meeting.	A USB device was connected after a meeting was already started.
		A USB device was connected after a meeting was already started.
		Leave the meeting, connect the USB device, and start the meeting again.
		A USB device was disconnected during the meeting.
None	The USB Device has been Disconnected.  Please do not disconnect the USB device during the meeting.	A USB device was disconnected during the meeting.
		Connect the disconnected microphone speaker.
None	Before using this machine.  The machine must be connected to the network. Currently no connection is available.  Please check the network configuration.	The machine is not connected to the network after boot up first.
		The machine is not connected to the network.
		Establish connectivity with the network.
		If the external microphone speaker is connected when booting up, disconnect the microphone speaker.
None	The firmware must be updated before the meeting service can be used.	A firmware update is required.
		A firmware upgrade is required before the iHub can be used.
		Try updating the firmware to the latest version.

## When acoustic feedback can be heard



• 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	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.
heard directly.		This feedback is not canceled by the echo canceller, resulting in acoustic feedback.
The machine is 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 acoustic feedback.
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 acoustic feedback.
Room that echoes	Lower the volume of the speaker and	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 acoustic feedback.
	adjust the orientation of the machine.	To reduce the amount of echoes, lower the volume of the speaker and turn the machine to face a direction in which echoes are not picked up easily.

<sup>\*</sup> 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 acoustic feedback.
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 acoustic feedback.
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 acoustic feedback. If the speaker output is distorted, the echo canceller cannot handle the distortion, resulting in acoustic feedback.
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 acoustic feedback.

<sup>\*</sup> This table applies to both the internal and external speaker.

Echo canceller: Automatically cancels echoes.

Noise reduction: Automatically cancels noise.

## **Network Troubleshooting**

### For both wired and wireless connections

Questions	Causes	Solutions
	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> <li>A required proxy server setting is not specified.</li> <li>A proxy server is specified even though it does not exist.</li> </ul>	Review the proxy server settings.
The machine failed to start	A proxy server setting is incorrect.  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 WAN: Use the same DNS settings for the entire company.  • Preferred DNS:165.96.170.104  • Alternate DNS:192.168.242.10
Failure to start a meeting	<ul> <li>When no proxy is used:</li> <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> <li>When using a proxy:</li> </ul>	When no proxy is used: Improve the ambient environment.  Confirm that the required ports are open. Use a tool to check the ports or consult the network administrator.  Reconfigure the settings for the router that distributes UDP packets.

Questions	Causes	Solutions
	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.)	Connect to an upstream path that is at a higher level than the distributing router. Consult the network administrator.  When using a proxy:  Wait a while and then retry.

For wired connections only

Questions	Causes	Solutions
The machine failed to start	The cable is broken or the hub has failed.	Improve the ambient environment.  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.  Check whether the cable latch and connector are firmly engaged. Do not use a cable that has a broken latch.
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.	<ul> <li>Improve the ambient environment.</li> <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

### 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.

### Solutions

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 problems shown on left occur, 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).

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 cancelling function fails to work properly because there is a lack of bandwidth for wireless communication.
The meeting ends or is left abruptly.	This problem occurs because electromagnetic interference and a lack of bandwidth causes wireless communication to be temporarily lost. As

Questions	Causes
(This occurs when video and audio are lost for approximately five seconds.)	a result, the machine becomes disconnected from the access point.
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 (256 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.

Try "Network Diagnosis"

Check Default

Check IP NG T

The device fails to obtain IP address. Configure the network setting of the device properly.

Check DNS server NG The Server NG OK

**Network Troubleshooting Flow** 

The device fails to access to the DNS server. Configure the network setting of the device properly.

Ping command to default gateway fails. Please try ping command to default gateway from other device. It also fails, please ask the IT admin.

The following ports which are needed to be opened are closed. If you can use proxy server, please try communicate with the proxy. In proxy environment, only TCP 443 port is needed to be opened. Otherwise, please ask the customer's IT admin to open the following ports. TCP port: 443, 5222, 17990, 17992

UDP port: 50000 - 65535

Check proxy NG→C

Configure the proxy settings properly if proxy server is used.

Check connection
to the service

OK

Barrdwidth indicator
check\*

οĸ

Delay check'

Complete

If the connection to the service fails however all of the above check is OK, in such case, access to the central server might be restricted by the firewall. Please ask the IT admin about the restriction.

Note: You can display bandwidth indicator during meeting. Please press left or right key of the device during meeting.

MD-D1 requires 500Kbps or more. If wireless network is used, please switch to wired network.

Note: network delay can be measured using Network Environment Check Tool. It can be downloaded from Ricoh web site.

The passing point for delay is "200msec". If the delay value is larger than 200, it might cause lip synch.

Resolved? NG-

Send log file to the central server from system menu. RCL analyze it.

Product Information
• Web Site URL:
Legal Notices
Send a Report

w\_e0a2r2082

## Problems when using Device Management Settings

Problem	Possible cause/location	Solution/Judgment
The Device Management Settings page is not displayed.	PC Settings	Your Security Settings in Internet Explorer must be configured to enable the following settings:  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
The layout of Device Management Settings is corrupted.	Setting the browser/OS font	Decrease the font size in your browser/OS
The layout of Device Management Settings is corrupted.	Magnification in Internet Explorer	In Internet Explorer 7, set the browser's zoom level to 100%.
Cannot log into Device Management 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

## **Handling This Product**

1. Observe the following points when transporting the machine:

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

- Wrap the machine in cushioning material to prevent it from being directly exposed to shock.
- Place the machine in the supplied bag and pack it in the original box or a sturdy cardboard box.
- Inform the carrier that the machine is a piece of precision equipment.
- For more information about transporting the machine, consult your carrier.
- 2. 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.

### Cleaning

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

## Copyright Notice

1. 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.

## Electromagnetic Interference

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.

### Precautions for Use

- 1. Be sure to use the power cord set and USB cable included with the machine.
- 2. 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.

### System Operations

### 1. Start-up

If the line quality when the machine starts up is below the guaranteed bandwidth (500 Kbps up and down), the following dialog box is displayed and the machines does not start even if the network is configured properly.

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

The network connection was lost during start-up.

Likely causes are as follows:

- The required network bandwidth is not secured.
- The wireless reception is poor.
- The network cable became disconnected.

Check that there is no problem with the state of the network.

-----

### 2. Performance

The times it takes to access the Contact List screen after turning on the machine is as follows:

- During start-up, the machine displays a progress bar together with the message "Starting...".

Frame dropping may occur or audio may be choppy due to network delays or high resource load inside the machine.

### 3. 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).

4. Contact List screen

4

If a terminal suddenly loses the network connection or turns off during a meeting, the following problems may have occurred:

- Although the terminal that lost the network connection is in offline state, its presence is indicated on the Destination List screen of the other terminal as "waiting" for up to two minutes.
- \* Presence: Indicates the current status of a terminal having a meeting as either Ready, Offline or Meeting on the Contact List screen.
  - On the center server, the meeting end time for the terminal that lost the network connection is extended by up to two minutes.

### 5. 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.

-----

### 6. Call Reception

A terminal cannot receive a call while 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.

### 7. 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 "Panes for all contacts (including you)".

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



e0a2r2083

"Panes for all contacts (including you)" layout



e0a2r2084

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

### 8. Firmware Update

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.

### 9. 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.

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

#### 10. External Devices

If an external microphone speaker is connected to each of the two USB ports, only one of the microphone speakers is available.

No buttons on the machine can be used to control an external microphone speaker (microphone muting or volume adjustment)

11. You cannot connect display devices to the DVI and RGB connectors simultaneously.

### **Device Management Settings**

1. Contacts Management (Address Book)

Sort order is not saved.

A sort key in the list cannot be changed.

The CID of the local terminal cannot be specified.

2. 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:

-----

### 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.

-----

### PC Screen Share

### 1. Screen Sharing

Translucent windows cannot be shared.

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

### 2. USB Driver

Depending on the version of the WinUSB driver installed in your PC, you may be prompted to restart the machine after installing the supplied USB driver.

Depending on the PC settings, the Add New Hardware Wizard may be displayed when a device is connected to your PC.

(By default, Windows XP and Vista are configured to display the Add New Hardware Wizard and Windows 7 is not.)

The supplied USB driver can be installed by canceling the Add New Hardware Wizard and executing the USB driver installation program.

The Add Hardware Wizard can be used to install the supplied USB driver, but if this method is used, the USB driver is not added to the Add or Remove Programs menu.

If Windows Vista SP2 is used, the initial installation of the PC Screen Share driver may fail.

If this happens, perform Windows Update to apply the latest patch before installing the driver.

If the Add New Hardware Wizard is used to install the supplied USB driver, the USB driver is not listed in the Add or Remove Programs menu, which then cannot be used to uninstall the driver.

#### 3. Performance

The frame rate may drop to 1 fps or less due to network delays or high resource load inside the machine.

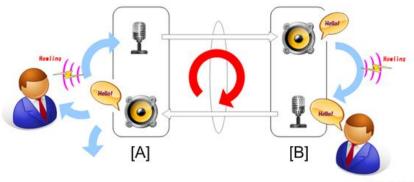
### Cause of Acoustic Feedback

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



e0a01035

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



e0a01034

[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.