

# ***Video Communication System***

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## **Operating Instructions**

Before operating the unit, please read this manual thoroughly and retain it for future reference.

***PCS-G70/G70P***



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# Owner's Record

The model and the serial numbers are located at the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. PCS-G70/G70P

Serial No. \_\_\_\_\_

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## WARNING

**To prevent fire or shock hazard, do not expose the unit to rain or moisture.**

**To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.**

### WARNING

This unit has no power switch. When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power cord to socket-outlet which must be provided near the unit and easily accessible. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power cord.

### CAUTION for LAN port

For safety reasons, do not connect the LAN port to any network devices that might have excessive voltage.

### Installing batteries

Two R03 (size AAA) batteries are supplied for Remote Commander.

To avoid risk of explosion, use R03 (size AAA) manganese or alkaline batteries.

### CAUTION

**RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.**

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

### For the customers in the USA

#### WARNING

Using this unit at a voltage other than 120 V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart B of Part 15 of FCC Rules.

This manual focuses on using ISDN lines to conduct a videoconference, but it also covers non-ISDN lines. If you use ISDN lines, consult your Sony dealer for more information.

- The ISDN service may not be available in some areas.

### **Voor de klanten in Nederland**

Dit apparaat bevat een vast ingebouwde batterij die niet vervangen hoeft te worden tijdens de levensduur van het apparaat.

Raadpleeg uw leverancier indien de batterij toch vervangen moet worden.

De batterij mag alleen vervangen worden door vakbekwaam servicepersoneel.

Gooi de batterij niet weg maar lever deze in als klein chemisch afval (KCA).

Lever het apparaat aan het einde van de levensduur in voor recycling, de batterij zal dan op correcte wijze verwerkt worden.



If you dispose the unit, consult your nearest Sony Service Center. The built-in battery must be treated as a chemical waste.

### **For the customers in Canada**

This Class A digital apparatus complies with Canadian ICES-003.

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# Chapter 1: Installation and Preparation

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## Using This Manual

The chapters cover the following contents; please read the chapters that may be required for your type of videoconference.

### **Chapter 1: Installation and Preparation**

This chapter guides you through the system configuration and information required to use your Video Communication System for the first time. It shows you how to install and connect your Video Communication System, to turn the system on/off and how to access basic on-screen menus.

### **Chapter 2: Registration and Setup for System Administrator**

This chapter describes how to register and set up all the necessary items for system administrators, using the on-screen menus.

### **Chapter 3: Daily Videoconference**

This chapter guides you through the basic operations and settings to conduct a videoconference. You will learn how to conduct a conference from start to finish. It is recommended that this chapter be read by participants in the videoconference.

### **Chapter 4: Videoconference With Optional Equipment**

This chapter shows advanced videoconferencing using the optional equipment.

### **Chapter 5: Data Conference**

This chapter shows you how to use the data from a computer for the conference by using the optional Data Solution Box.

### **Chapter 6: Videoconference Using a Whiteboard**

This chapter shows how to use a whiteboard with the mimio Xi\* attached for a videoconference.

\* mimio® is a registered trademark of Virtual Ink Corporation of the United States.  
mimio Xi is a trademark of Virtual Ink Corporation of the United States.

### **Chapter 7: Encrypted Videoconference via LAN**

This chapter shows how to conduct a videoconference using an encrypted video and audio data, and encrypted data from a computer connected to the Data Solution Box.

### **Chapter 8: Multipoint Videoconference**

This chapter shows you how to use the Video Communication System to hold a multipoint videoconference. You need to install MCU software in this System for a multipoint videoconference.

### **Appendix**

The appendix contains descriptions of the controls and connectors on the components of the Video Communication System, message and troubleshooting lists, specifications, and a glossary.

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# Features

The PCS-G70/G70P Video Communication System is a videoconferencing system that provides natural, face-to-face communications with a remote party by transmitting and receiving images and sound via LAN (Local Area Network) or ISDN (Integrated Services Digital Network) connections.

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## Supports ITU-T international videoconferencing standard

The Video Communication System complies with ITU-T Recommendations defined by WTSC for easy connection with remote parties overseas.

ITU: International Telecommunication Union

WTSC: World Telecommunications Standardization Committee

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## Supports data conferences

Use of the optional PCSA-DSB1S Data Solution Box allows the data from a personal computer to be incorporated in the presentation or to be shown on the projector.

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## High transmission speeds and high-quality picture capability

The Video Communication System accepts a LAN bandwidth of up to 4 Mbps. It also allows you to connect to as many as three ISDN lines and use 6B channels with the optional PCSA-B384S ISDN Unit, and as many as six ISDN lines and use 12B channels with the optional PCSA-B768S ISDN Unit. (When you use PRI, you can connect to one line and use 23B channels (T1) or 30B channels (E1).)

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## Wide range of video/audio compression format selectable

The Video Communication System supports H.264, H.263 4CIF, H.263, H.261, MPEG4, interlaced SIF (H.264/H.263) video compression formats. It also supports MPEG4 AAC, G.722.1, G.722, G.729,

G.728, G723.1, and G.711 audio compression formats.

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## QoS (Quality of Service) function for optimization of bandwidth and traffic packet through network

This system includes the “Packet Resend Request”, “Adaptive Rate Control”, and “Forward Error Control” functions.

Depending on the network status, these functions are used in Hybrid to guarantee consistent, high-quality communications.

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## Supports the transmission of two different video signals (dual video function)

Using two cameras, you can display the speaker and the entire conference room simultaneously, strengthening the sense of reality of the videoconference.

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## Easy setup and operation

Help is displayed on the monitor when you need guidance. The menus used by the system administrator or those by conference participants are displayed separately.

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## Supports multipoint conference

Installing the optional PCSA-M3G70 H.323 MCU software (for LAN) or the PCSA-M0G70 H.320 MCU software (for ISDN) allows conduct of a multipoint conference.

The multipoint conference via LAN and ISDN connections mixed is also available if both the PCSA-M3G70 H.323 and PCSA-M0G70 H.320 MCU software are installed in a main terminal.

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## Equipped with a Memory Stick slot

The Communication Terminal is equipped with a Memory Stick slot, allowing the use of still images recorded with a digital still camera and stored in the “Memory Stick”.

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### **Triple monitor system**

You can connect three monitors to the Communication Terminal, which allows you, for example, to display video from the remote party, video from your terminal, and video from a computer or whiteboard simultaneously.

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### **Supports an encrypted videoconference (only for LAN connection)**

When you connect to other terminals via LAN, you can start a videoconference only with the terminals that enter the preset password. This feature allows you to hold a strictly confidential videoconference.

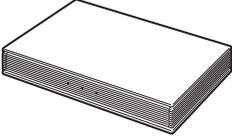
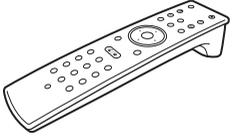
An encrypted conference among multiple points or with cascade connection is enabled if all the terminals are connected via LAN.

# System Components

The PCS-G70/G70P Video Communication System is composed of basic system components for a basic videoconference, and optional equipment for an enhanced videoconference.

## Basic System Components

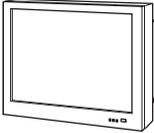
The PCS-G70/G70P Video Communication System is the basic system of the PCS-G70/G70P Videoconferencing System. It contains the following components:

Unit	Description
PCS-PG70/PG70P Communication Terminal 	Contains the video codec, audio codec, echo canceler, network interfaces and system controller.
PCSA-CG70/CG70P Camera Unit 	Camera to shoot videoconference.
PCS-RG70 Remote Commander 	Used to operate the Communication Terminal and Camera Unit.
PCS-AC19V6 AC adaptor 	Supplies power to the Communication Terminal.
Video Converter Cable 1-757-517-11 	Used to send video output from a pin terminal to an S-video terminal.

## Optional Equipment

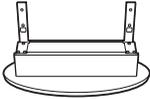
### TV monitor

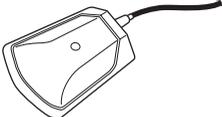
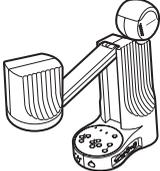
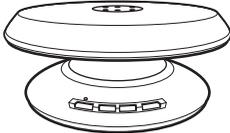
A TV or projector, etc. is required to monitor the images for videoconferencing system.

Unit	Description
TV, Projector, etc. 	Used as a monitor and speakers.

### Optional equipment especially designed for use with the PCS-G70/G70P

The following optional devices are used to enhance your videoconference.

Unit	Description
PCSA-STMG70 Stand 	This stand can be used to place the Communication Terminal on end.
PCSA-STCG70 Camera Stand 	Stand for the Camera Unit.
PCSA-B384S ISDN Unit 	Used to connect to an ISDN line. Up to three ISDN lines; 6B channels usable.
PCSA-B768S ISDN Unit 	Used to connect to an ISDN line. Up to six ISDN lines; 12B channels usable.
PCSA-PRI ISDN Unit 	Used to connect to an ISDN line through the PRI line interface.
PCSA-DSB1S Data Solution Box 	Use of this device allows easy connection with a computer or projector for a data conference.

Unit	Description
<p data-bbox="227 121 445 145">PCS-A1 Microphone</p> 	<p data-bbox="518 121 996 220">Omni-directional microphone that picks up sound relatively from all directions, allowing participants to speak from any location. It is recommended to use in a quiet situation.</p>
<p data-bbox="227 272 445 296">PCS-A300 Microphone</p> 	<p data-bbox="518 272 996 347">Unidirectional microphone. It is recommended when you want to pick up the voice of a speaker directed toward the microphone.</p>
<p data-bbox="227 437 445 485">PCS-DS150/DS150P Document Stand</p> 	<p data-bbox="518 437 996 536">Camera for documents. Allows transmission of pictures to the Communication Terminal by infrared signals without connecting a cable.</p>
<p data-bbox="227 683 468 730">CTE-600 Communication Transducer</p> 	<p data-bbox="518 683 981 831">Integrated microphone/speaker system suitable for remote communication. The uni-directional microphones pick up clear voice with minimum background noise. Moreover, the omni-directional speaker outputs sound equally in all directions.</p>
<p data-bbox="227 887 482 935">PCSA-M3G70 H.323 MCU Software</p>	<p data-bbox="518 887 972 935">Allows use for a multipoint videoconference over LAN connection.</p>
<p data-bbox="227 951 482 999">PCSA-M0G70 H.320 MCU Software</p>	<p data-bbox="518 951 972 999">Allows use for a multipoint videoconference over ISDN connection.</p>

## Cables

Use the following cables to connect devices in this system.

### PCS-G70/G70P Video Communication System

Cable	Part No.	Number
Camera cable (0.25 m (0.8 ft))	1-827-376-11	1
S-video cable (1.5 m (4.9 ft))	1-776-078-42	1
Audio cable (1 m (3.3 ft))	1-765-258-31	1

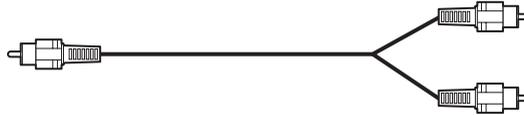
**Camera cable**



**S-video cable**



**Audio cable**



# System Configuration

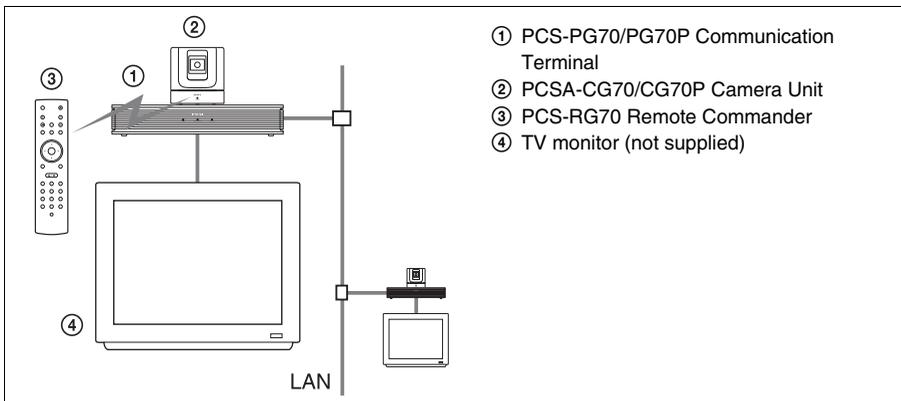
The PCS-G70/G70P Video Communication System has various system configuration capabilities using the basic components and optional equipment. This section describes eight typical examples.

## System Configuration via a LAN

This allows you:

- To hold a point-to-point videoconference over LAN.
- To show still images stored on a “Memory Stick”.

### System configuration



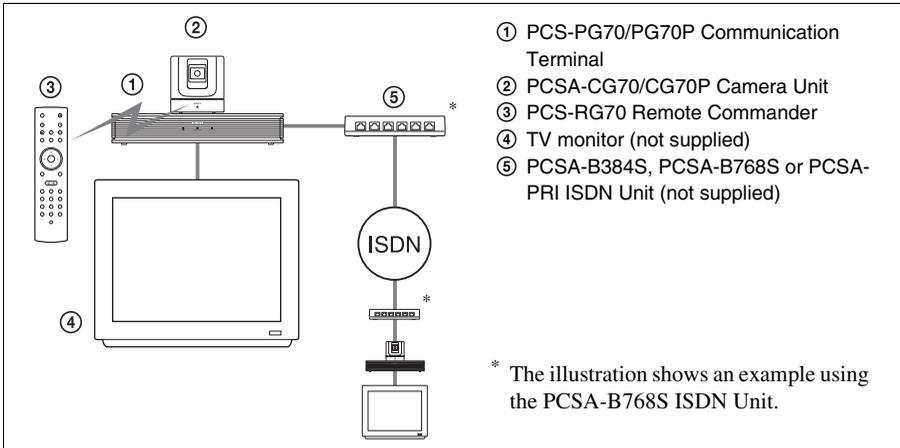
## System Configuration via an ISDN

Connection to ISDN is required to use the PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit especially designed for use with this system.

### This allows you:

- To hold a point-to-point videoconference over ISDN.
- To show still images stored on a “Memory Stick”.
- To hold a videoconference with high speeds and highest quality image transmission by connecting up to three ISDN lines (when using the PCSA-B384S), by connecting up to six ISDN lines (when using the PCSA-B768S) or by connecting one ISDN line (when using the PCSA-PRI).

### System configuration



### About the number of ISDN lines and B (bearer) channel

Up to three ISDN lines (6B channels) with the PCSA-B384S ISDN Unit, up to six ISDN lines (12B channels) with the PCSA-B768S ISDN Unit, or one ISDN line (23B channels (T1), 30B channels (E1)) with the PCSA-PRI ISDN Unit can be connected to one PCS-PG70/PG70P. The more channels you use for a single communication, the faster speeds and higher-quality picture you can obtain for your network communication.

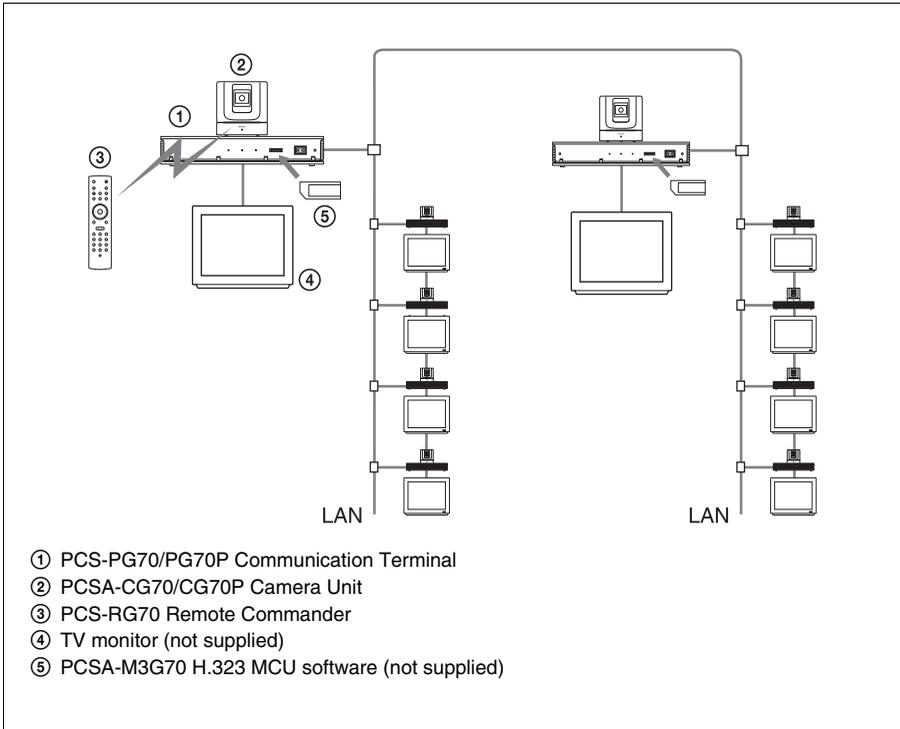
## System Configuration via a LAN for Multipoint Conference

You need to install the optional PCSA-M3G70 H.323 MCU software.

### This allows you:

- To hold a multipoint videoconference among up to ten sites over LAN.
- To show still images stored on a “Memory Stick”.
- To show the still images on the second TV monitor or projector.
- To pick up a large number of participants’ voices using up to two external microphones.

### System configuration



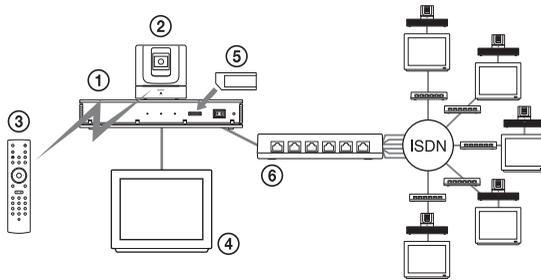
## System Configuration via an ISDN for Multipoint Conference

You need to connect the optional PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit especially designed for use with this system and to install the optional PCSA-M0G70 H.320 MCU software.

### This allows you:

- To hold a multipoint videoconference among up to six sites over ISDN.
- To show still images stored on a “Memory Stick”.
- To show the still images on the second TV monitor or projector.
- To pick up a large number of participants’ voices using up to two external microphones.

### System configuration



- ① PCS-PG70/PG70P Communication Terminal
- ② PCSA-CG70/CG70P Camera Unit
- ③ PCS-RG70 Remote Commander
- ④ TV monitor (not supplied)
- ⑤ PCSA-M0G70 H.320 MCU software (not supplied)
- ⑥ PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit (not supplied)

\* The illustration shows an example using the PCSA-B768S ISDN Unit.

## System Configuration via a LAN and ISDN for Multipoint Conference

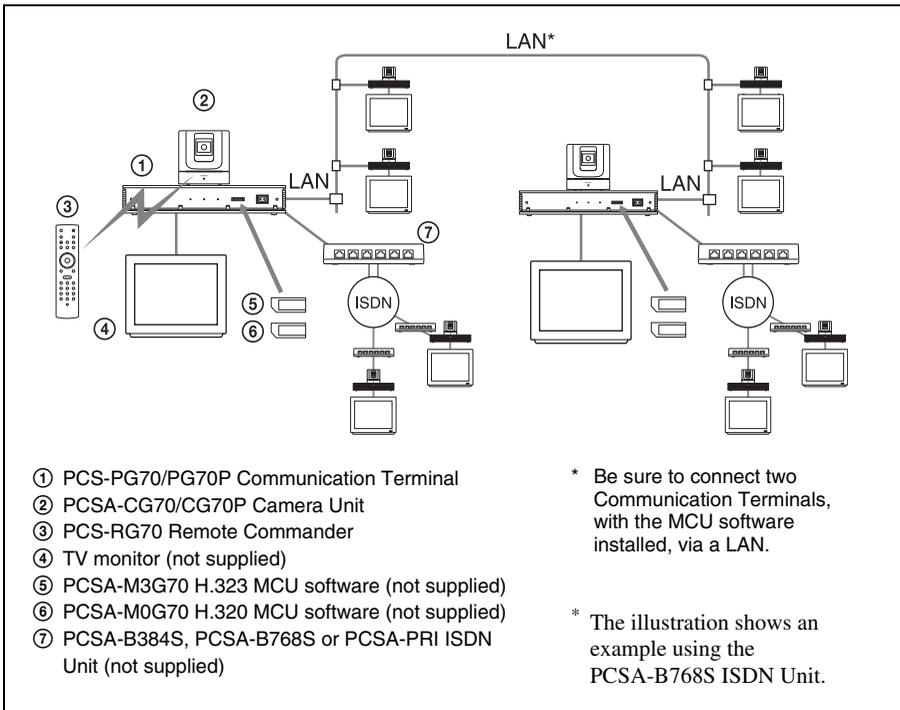
Installing the optional PCSA-M3G70 H.323 MCU software (for LAN) and PCSA-M0G70 H.320 MCU software (for ISDN) enables conduct of a multipoint conference via a LAN and ISDN mixed.

Two Communication Terminals in which MCU software is installed must be connected via a LAN.

### This allows you:

- To hold a multipoint videoconference among up to ten sites over LAN and ISDN.
- To show still images stored on a “Memory Stick”.
- To show the still images on the second TV monitor or projector.
- To pick up a large number of participants’ voices using up to two external microphones.

### System configuration





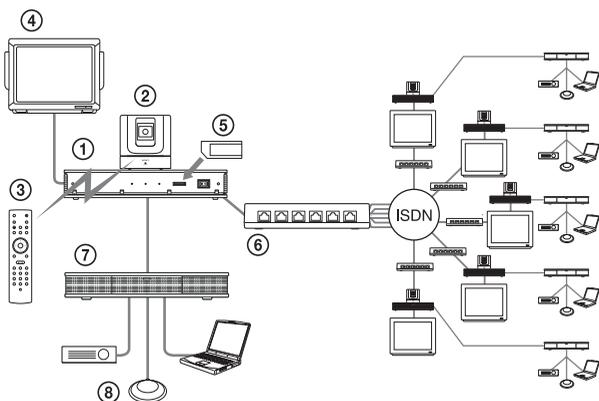
## System Configuration via an ISDN for Multipoint Data Conference

You need to connect the optional PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit and the PCSA-DSB1S Data Solution Box especially designed for use with this System and to install the optional PCSA-M0G70 H.320 MCU software.

### This allows you:

- To hold a multipoint videoconference among up to six sites over ISDN.
- To show still images stored on a “Memory Stick”.
- To use the data from a computer or an external equipment.
- To show the data from a computer or still images on the second TV monitor or projector.
- To pick up a large number of participants’ voices using up to five external microphones connected to the Data Solution Box.

### System configuration



- ① PCS-PG70/PG70P Communication Terminal
- ② PCSA-CG70/CG70P Camera Unit
- ③ PCS-RG70 Remote Commander
- ④ TV monitor (not supplied)
- ⑤ PCSA-M0G70 H.320 MCU software (not supplied)
- ⑥ PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit (not supplied)
- ⑦ PCSA-DSB1S Data Solution Box (not supplied)
- ⑧ PCS-A1 Microphone (not supplied)

\* The illustration shows an example using the PCSA-B768S ISDN Unit.

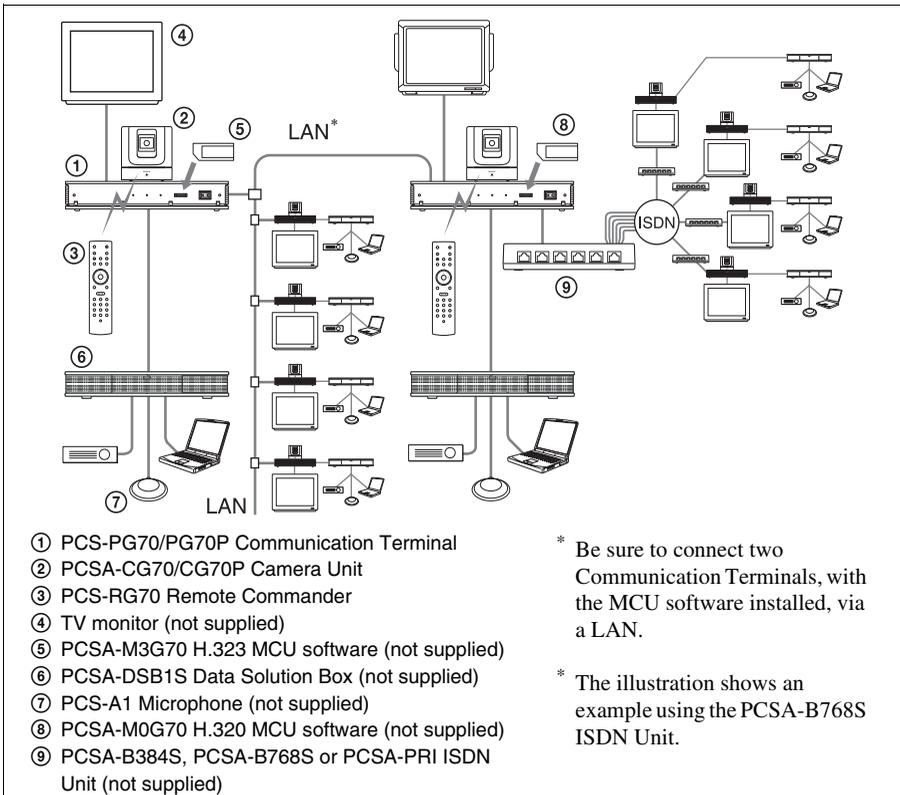
## System Configuration via a LAN and ISDN for Multipoint Data Conference

Installing the optional PCSA-M3G70 H.323 MCU software, the PCS-M0G70 H.320 MCU software, and using the optional Data Solution Box PCS-DSB1S and ISDN Units PCSA-B384S, PCSA-B768S, or PCSA-PRI enables you to conduct multipoint mixed LAN and ISDN line multipoint data conferences. Two Communication Terminals where the MCU software is installed must be connected via a LAN in this configuration.

### This allows you:

- To hold a multipoint videoconference among up to six sites over ISDN.
- To show still images stored on a “Memory Stick”.
- To use data from a computer or other such peripheral device in the videoconference.
- To show still images or computer data on the second monitor or projector used as the display device.
- To connect up to five external microphones to the Data Solution Box, allowing you to hear several participants.

### System configuration



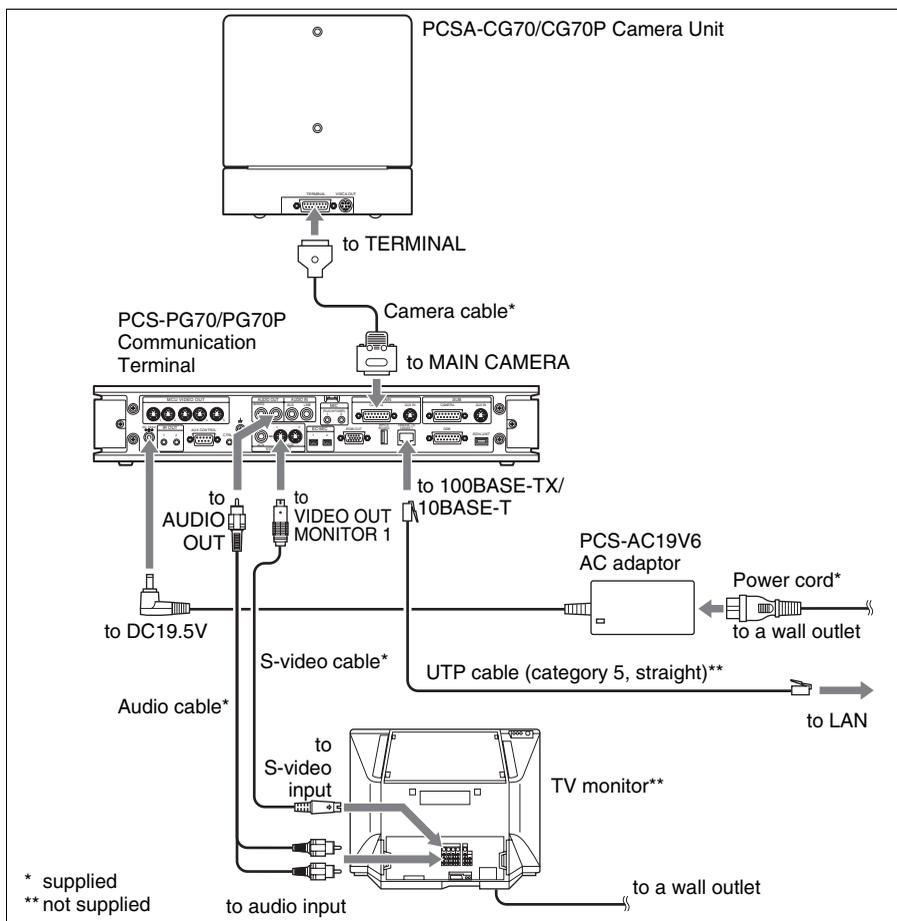
# System Connections

This section describes the typical system connections.

## Notes

- Be sure to turn off all the equipment before making any connections.
- Do not connect/disconnect the camera cable with the power on. Doing so may damage the Camera Unit or Communication Terminal.
- For safety, do not connect the 100BASE-TX/10BASE-T connector to a network that applies an excess voltage via the 100BASE-TX/10BASE-T connector.

## System Connection via a LAN



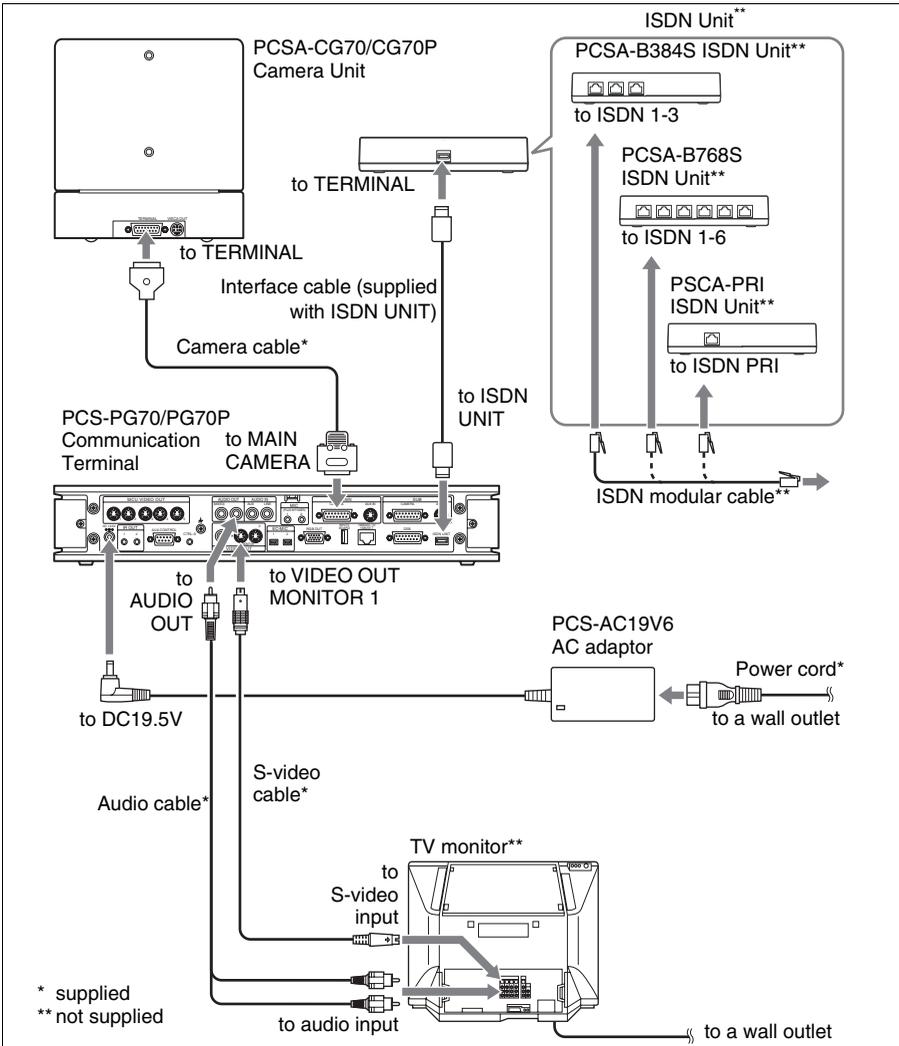
## Notes

- If you are only using one camera, be sure to connect it to the MAIN CAMERA connector.
- The AUDIO OUT (MIXED) jack is used to make an audio recording of a conference. This is not used during regular conferences.

## System Connection via an ISDN

### Notes

- Do not connect/disconnect the camera cable or the interface cable with the power on. Doing so may damage the Camera Unit, Communication Terminal or ISDN Unit.
- Used with an ISDN Unit for the first time, the Communication Terminal may automatically upgrade the software of the ISDN Unit. While the upgrading message is displayed on the monitor screen, be sure not to turn off the Communication Terminal. Doing so may cause malfunction of the system.



### Notes

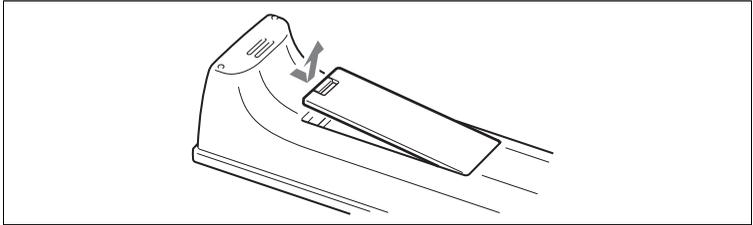
- If you are only using one camera, be sure to connect it to the MAIN CAMERA connector.
- The AUDIO OUT (MIXED) jack is used to make an audio recording of a conference. This is not used during regular conferences.

# Preparing the System

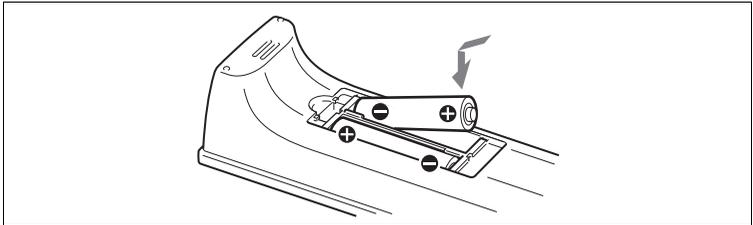
## Inserting Batteries into the Remote Commander

Most of the operations with the Video Communication System can be controlled with the supplied Remote Commander.

- 1 Remove the battery compartment cover.



- 2 Insert two size AAA (R03) batteries (supplied) with correct polarities into the battery compartment.



### Note

Be sure to insert the batteries  $\ominus$  side first. Inserting them forcibly  $\oplus$  side first may damage the insulated film covering the batteries and cause a short circuit.

- 3 Replace the cover.

### Battery life

When the Remote Commander does not function properly, replace both the batteries with new ones.

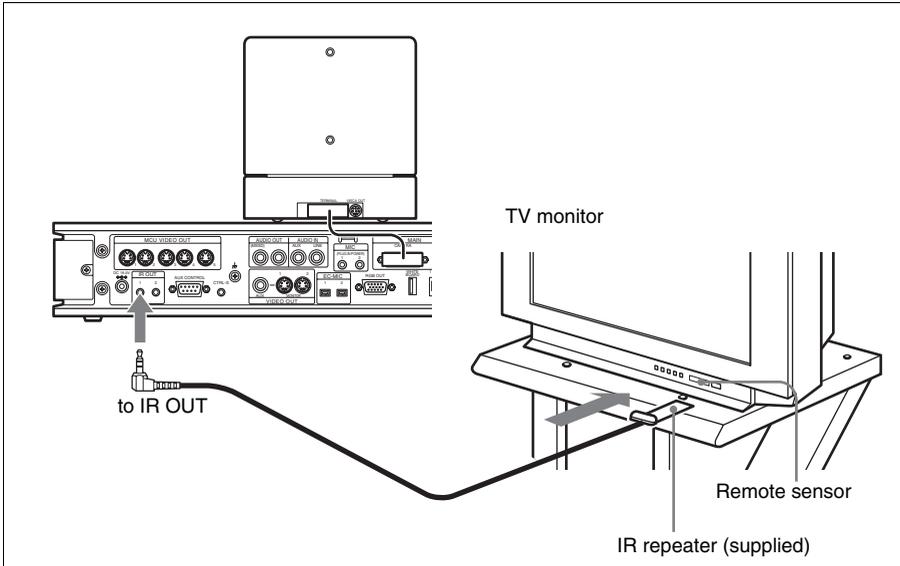
### Notes on batteries

To avoid damage from possible battery leakage or corrosion, observe the following:

- Make sure to insert the batteries with the polarities in the correct direction.
- Do not mix old and new batteries, or different types of batteries.
- Do not attempt to charge the batteries.
- If you do not intend to use the Remote Commander for a long period of time, remove the batteries.
- If battery leakage occurs, clean the battery compartment and replace all the batteries with new ones.

## Turning On/Off the TV Monitor Together With the Communication Terminal

If you use a Sony TV, insert the IR repeater under the remote sensor of the TV. Once you set the IR repeater, the TV will turn on or go to standby together with the Communication Terminal when you press the  $\mathbb{I}/\text{ON}$  button on the supplied Remote Commander.



### Note

If the TV monitor is not turned on by pressing the  $\mathbb{I}/\text{ON}$  button on the Remote Commander, change the “IR Repeater Mode” setting in the General Setup menu.

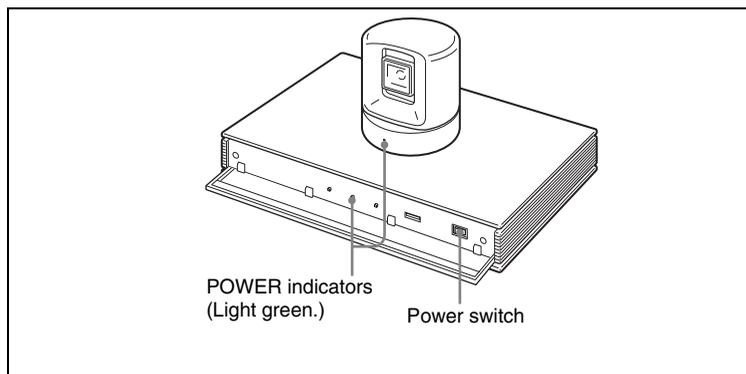
*For details on the “IR Repeater Mode” setting, see “General Setup Menu” on page 53.*

# Turning the System On/Off

This section describes how to turn on or off the Communication Terminal.

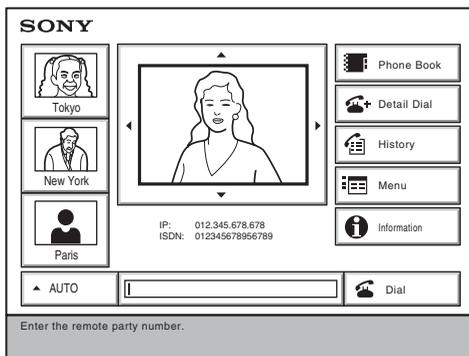
## Turning On

- 1** Turn on the TV monitor.  
If the IR repeater is installed in the TV monitor, set the TV monitor to standby mode. The TV monitor will turn on simultaneously when the Communication Terminal is turned on.
- 2** Turn on the power of any other equipment to be used for the videoconference.
- 3** Open the front panel of the Communication Terminal, and then slide the power switch on the right to the on position (I).



The Communication Terminal turns on after a while. Three indicators on the front of the Communication Terminal and the POWER indicator on the camera light, then only the POWER indicators on both units remain on in green. The launcher menu will appear on the monitor screen and the picture shot by the local camera will also appear in the launcher menu.

## Launcher menu



### Notes

- After the power is turned on, the camera moves automatically for trial operation. Be careful not to catch your finger.
- If you use force to prevent the camera moving, it may not resume moving and not output a signal to the Communication Terminal. In this case, turn off the terminal, and turn it on again.
- When you turn on the power of the Communication Terminal for the first time after installation, the setup wizard will appear after the self-diagnosis is completed. Set up your system following the wizard.

*For setups using the wizard, see "Setting Up the System for the First Time — Initial Setup Wizard" on page 33.*

- Used with an optional device especially designed for use with this system, such as the Data Solution Box or ISDN Unit, for the first time, the Communication Terminal may automatically upgrade the software of the connected device. While the upgrading message is displayed on the monitor screen, be sure not to turn off the Communication Terminal. Doing so may cause malfunction of the system. System malfunction may also occur when a system power-off has been caused by an accidental problem such as a power interruption during upgrading. If connection of the Data Solution Box or ISDN Unit to the Communication Terminal is not re-established even after the system power is recovered, consult a Sony dealer.

## Standby Mode Function

To save power, the Communication Terminal will enter standby mode if you do not operate it for a specified period of time.

When the Communication Terminal is in standby mode, the POWER indicator lights in orange. Once the Communication Terminal receives a call, the standby mode is automatically released.

### To release the standby mode

Press the **I/C** button on the Remote Commander.

### To specify the standby time

Specify the time that you want the system to remain on before entering into standby mode (1 to 99 minutes) by selecting “Device Setup” on the General Setup menu, and then setting “Standby Time”. If you do not want the system to enter the standby mode, set “Standby Mode” to “Off”.

*For the “Standby Time” and “Standby Mode” settings, see “General Setup Menu” on page 53.*

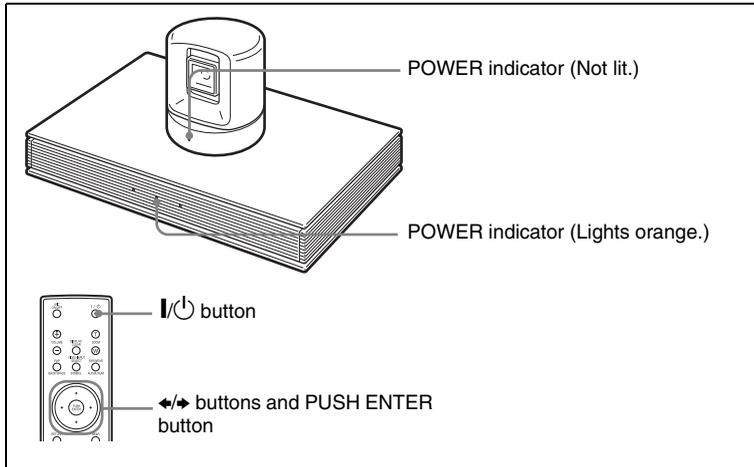
### Notes

- The POWER indicator on the camera goes off when the system enters standby mode.
- If you use a Sony TV monitor with the IR repeater installed under the remote sensor, the TV monitor will enter standby mode together with the Communication Terminal.

## Setting the Video Communication System to Standby Mode

You can turn on the Video Communication System with the  button on the Remote Commander if it is in standby mode.

- 1 Display the launcher menu on the the monitor screen, then press the  button on the Remote Commander.  
The message “Power off?” appears on the monitor screen.
- 2 Press the  or  button on the Remote Commander to select OK, and press the PUSH ENTER button.  
You may press the  button on the Remote Commander.



The Video Communication System enters standby mode and the POWER indicator on the Communication Terminal lights in orange. The POWER indicator on the camera goes out.

If the IR repeater is installed in a Sony TV monitor, it will go into standby together with the Video Communication System.

### Note

When the Communication Terminal and the Camera are separately installed, point the Remote Commander to the Camera for operations.

### To cancel setting the system to standby

Select “Cancel” with the  or  button on the Remote Commander, then press the PUSH ENTER button in step 2 above.

## Turning Off

- 1 Open the front panel of the Communication Terminal, and then slide the power switch on the right to the off position (O).
- 2 Turn off the power of other equipment used for the videoconference.

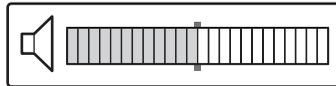
### Note

Set the power switch on the Communication Terminal off when the system will not be used for an extended period. While the power switch is off, you cannot receive a call from a remote party.

## Adjusting the Volume on the TV Monitor

Before adjusting the volume on the TV monitor, set the volume on the Communication Terminal to the appropriate position.

- 1 Press the VOLUME +/- buttons on the Remote Commander to set the volume level on the adjustment bar displayed on the screen to the middle position.



- 2 Adjust the volume on the TV monitor so that you can properly hear a remote party speaking.

### To adjust the picture on the TV monitor

Use the controls on the TV monitor to adjust the picture, hue, contrast, brightness or sharpness.

*For details on picture adjustments, refer to the Operating Instructions of the TV.*

### Note

Do not activate the TV's surround sound feature as it may cause the echo canceller of the Communication Terminal not to function properly and make strange sounds.

## Displaying Help

Pressing the HELP button on the Remote Commander displays a balloon help or a help screen to guide most operations on the monitor screen.

### Note

You can hide the balloon help used for entering characters.

Press the MENU button on the Remote Commander to show the menu, and set “Character Input Help” under “Menu Screens” of the General Setup menu to “Off”. (See page 53.)

## Displaying the Versions and Options

You can check the version of the Communication Terminal, versions of the connected optional equipment for exclusive use with this system, and the options installed in the terminal by displaying the Status menu on the monitor screen.

*For details on the Status menu, see “Information Menu” on page 67.*

# Setting Up the System for the First Time — Initial Setup Wizard

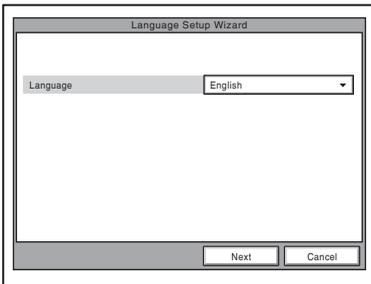
When you turn on the Communication Terminal for the first time after installation and the self-diagnosis is completed, the setup wizard appears on the monitor screen. Register your local system data with the setup wizard using the Remote Commander.

## Notes

- You can change the settings made with the setup wizard later using the Setup menus.
- The setup wizard will also be displayed when you install the PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit to your system later. Perform the setup again.

**1** Select the language used for the on-screen menus and messages in the Language Setup Wizard.

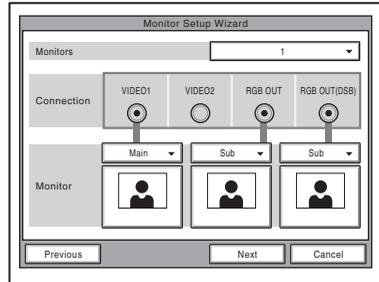
**Language:** Select one of the following languages; English, French, German, Japanese, Spanish, Italian, Simplified Chinese, or Portuguese.



- 2** Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Next”, then press the PUSH ENTER button. The Monitor Setup Wizard appears.
- 3** Select a monitor from which signals are output.

## Note

If you select a monitor from “Monitor Out”, other monitors than that you selected display no menus.



## Monitors

Select the number of monitors connected to the system.

- 1:** One monitor connected.  
**2:** Two monitors connected.  
**3:** Three monitors connected.

## Connection

Selects the output connector to which the device to be used is connected.

**VIDEO 1:** Selects the device connected to the VIDEO 1 connector.

**VIDEO 2:** Selects the device connected to the VIDEO 2 connector.

**RGB OUT:** Selects the device connected to the RGB OUT connector as the main monitor.

**RGB OUT (DSB):** Selects the device connected to the RGB OUT connector on the Data Solution Box.

## Monitor

Allows you to define the monitor connected to the corresponding connector as the main monitor or the sub monitor.

**Main:** Defines the monitor as the main monitor.

**Sub:** Defines the monitor as the sub monitor.

*For details, see “Displaying the Picture on a Projector or Monitor” on page 151.*

- 4 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Next”, then press the PUSH ENTER button. The ISDN Setup Wizard appears when the PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit is connected. When the ISDN Unit is not connected, the LAN Setup Wizard is displayed. Proceed to step 11.

- 5 Set the following items on the ISDN line.

**Country/Region:** Select your country or region.

**Protocol:** Select the protocol of the ISDN line you are using.

- 6 Use the **↑**, **↓**, **←** or **→** button to select “Next”, then press the PUSH ENTER button.

- 7 Enter the telephone number of the ISDN used by the system.

When you use one ISDN line, enter the same number both in the A1 and A2 text boxes (except for the USA and Canada).

**Area Code:** Enter the area code. Do not enter the first “0” number.

**Local Number:** Enter the telephone number.

#### Notes

- When you select a blank text box and press the PUSH ENTER button on the Remote Commander, the content in the text box immediately above will be copied to the selected text box.
- When you use the PCSA-B384S ISDN unit and connect 2 or 3 ISDN lines, enter the telephone numbers in the B1 to C2 text boxes in addition to the A1 and A2 boxes.
- When you use the PCSA-B768S and connect 2 to 6 ISDN lines, enter the telephone numbers in the B1 to F2 text boxes in addition to the A1 and A2 boxes. To open the menu with D1 to F2 text boxes, select “Next”, then press the PUSH ENTER button.
- When you use the PCSA-PRI, Ch1 to Ch23 (T1), or Ch1 to Ch30 (E1) are displayed. Enter the telephone numbers according to the number of channels you will use.

#### When you select Auto SPID (only for customers in the USA and Canada)

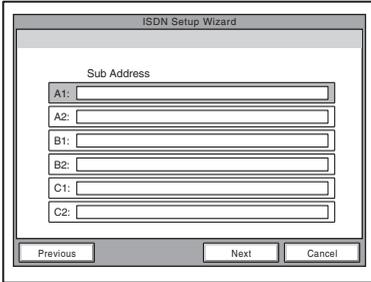
You can automatically set up the Area Code and Local Number on this page, and SPID items in the SPID menu.

- 8 Use the **↑**, **↓**, **←** or **→** button to select “Next”, then press the PUSH ENTER button.

## 9 Enter the sub-addresses.

Only numbers are available for a sub-address.

When you use one ISDN line, enter the same number both in the A1 and A2 text boxes (except for the USA and Canada).



### Note

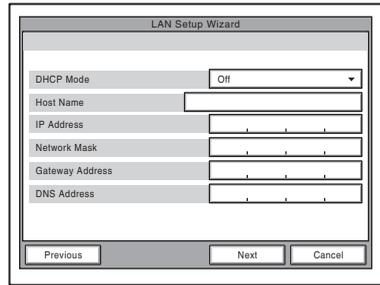
When you use the PCSA-B384S ISDN unit and connect 2 or 3 ISDN lines, enter the sub-addresses in the B1 to C2 text boxes in addition to the A1 and A2 boxes. When you use the PCSA-B768S and connect 2 to 6 ISDN lines, enter the sub-addresses in the B1 to F2 text boxes in addition to the A1 and A2 boxes. To open the menu with these text boxes, select “Next”, then press the PUSH ENTER button.

When you use the PCSA-PRI, Ch1 to Ch23 (T1), or Ch1 to Ch30 (E1) are displayed. Enter the telephone numbers according to the number of channels you will use.

## 10 Use the **↑**, **↓**, **←** or **→** button to select “Next”, then press the PUSH ENTER button.

The message window for confirmation appears.

## 11 Set the following items on the LAN.



### DHCP Mode

Sets the DHCP (Dynamic Host Configuration Protocol).

**Auto:** Automatically assigns your IP address, network mask, gateway address and DNS address.

**Off:** Deactivates DHCP. In this case set your IP address, network mask, gateway address and DNS address manually.

### Host Name

Enter your host name.

### IP Address

Enter your IP address.

### Network Mask

Enter your network mask.

### Gateway Address

Enter your default gateway address.

### DNS Address

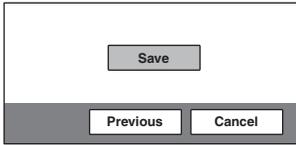
Enter your DNS (Domain Name System) server address.

### Note

When you set “DHCP Mode” to “Auto”, the assigned IP address is shown in the launcher menu (page 75) or Information menu (page 67).

If you do not know how to set up the LAN configuration, contact your network administrator.

- 12 Use the **↑**, **↓**, **←** or **→** button to select “Save”, then press the PUSH ENTER button.



The settings are saved.

### To cancel the setting

Press the **↑**, **↓**, **←** or **→** button to select “Cancel”, then press the PUSH ENTER button.

### To go back to the previous wizard

Press the **↑**, **↓**, **←** or **→** button to select “Previous”, then press the PUSH ENTER button.

## Using the Menu

The Video Communication System uses the on-screen menus to make various adjustments and settings. This section describes how to adjust or set the items in the menus and gives a brief introduction of the menus.

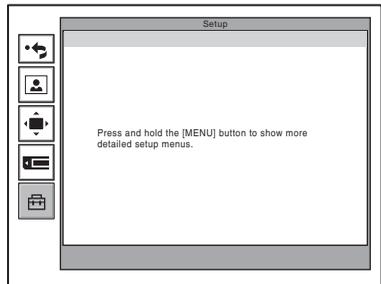
*For the menu configuration, see page 228.*

### Operation

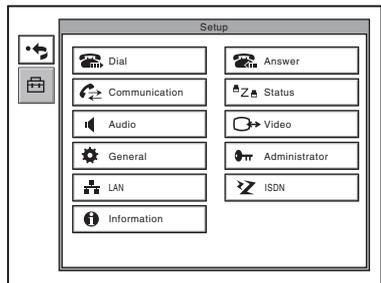
The basic operation through the menu is explained by taking the Setup menu.

- 1 Press the MENU button on the Remote Commander, or press the **↑**, **↓**, **←** or **→** button to select “Menu” and press the PUSH ENTER button in the launcher menu.

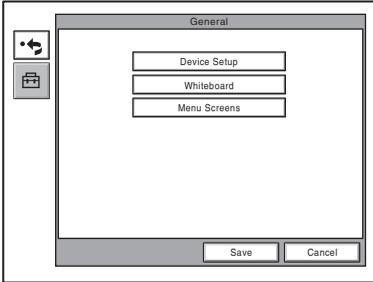
The Setup menu appears.



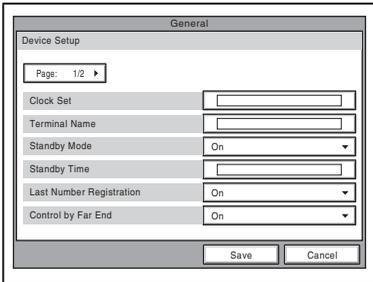
- 2 Press and hold the MENU button. The Setup menu for the administrator appears.



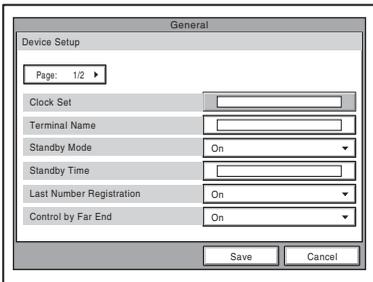
- 3 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the menu you want to set, then press the **PUSH ENTER** button.  
The selected setup menu appears.



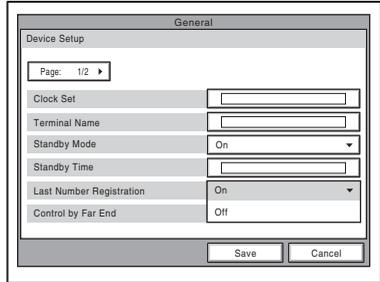
- 4 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the menu you want to set, then press the **PUSH ENTER** button.  
The selected setup menu appears.



- 5 Press the **→** button, then press the **PUSH ENTER** button.  
The top item is selected.

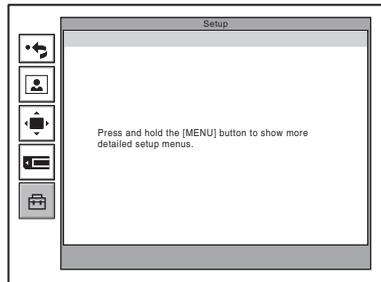


- 6 Press the **↑** or **↓** button to select the item you want to set or adjust, then press the **PUSH ENTER** button.  
The setting items are displayed.



- 7 Press the **↑** or **↓** button to select the setting item you want, then press the **PUSH ENTER** button.

- 8 Press the **↓** button to select "Save", then press the **PUSH ENTER** button.



The selected setting is saved.

### To return to the previous menu

Press the **RETURN** button on the Remote Commander.

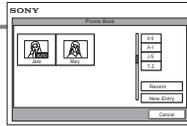
# Menu Configuration

The system menus are configured as outlined below.  
 For details about menu configuration, see “Menu Configuration” on page 228.

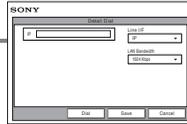
Launcher menu



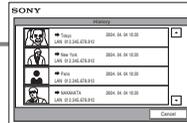
Phone Book/Private Phone Book



Detail Dial



History



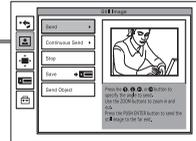
Menu



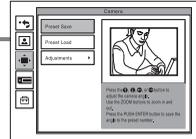
Information



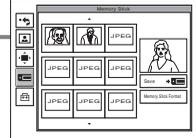
Still Image menu



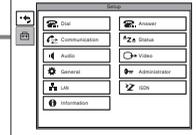
Camera menu



Memory Stick menu



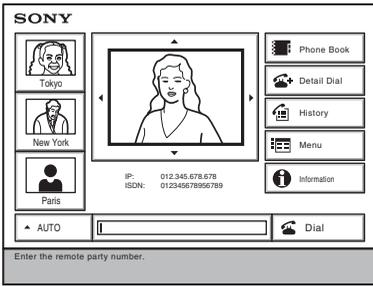
Setup menu



Selecting the icons shown on the left side of the launcher menu displays each menu.

Icon	Displayed menu
	Returns to the previous menu.
	Still Image menu
	Camera menu
	Memory Stick menu
	Setup menu

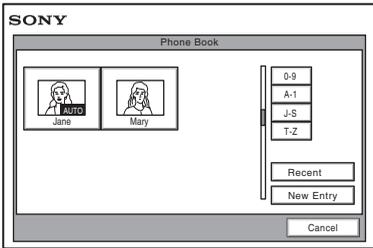
## Launcher menu



The launcher menu is displayed when the Video Communication System is turned on or while not connected to a remote party.

*For details on the launcher menu, see page 75.*

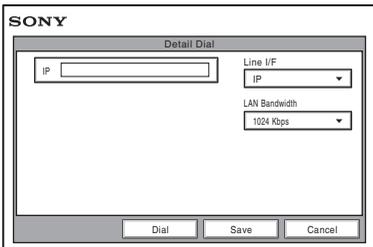
## Phone Book



The Phone Book is used to register a remote party, or to call a registered remote party. The Phone Book appears when you select "Phone Book" on the launcher menu.

*For details on the Phone Book, see pages 68 to 71 and 84 to 86.*

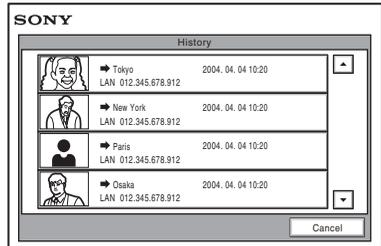
## Detail Dial



The Detail Dial is used to call a remote party who is not registered in the Phone Book. The Detail Dial appears when you select "Detail Dial" on the launcher menu. The menu also appears when you press the CONNECT/DISCONNECT (📞 / 📞) button on the Remote Commander.

*For details on the Detail Dial, see pages 79 to 83.*

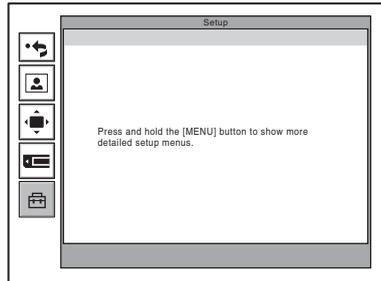
## History



This menu is used to control the videoconference history information. The menu appears when you select "History" on the launcher menu.

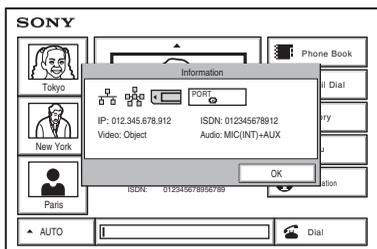
*For details on the History, see page 84.*

## Setup menu



The menu appears when you select "Menu" on the launcher menu. The menu also appears when you press the MENU button on the Remote Commander.

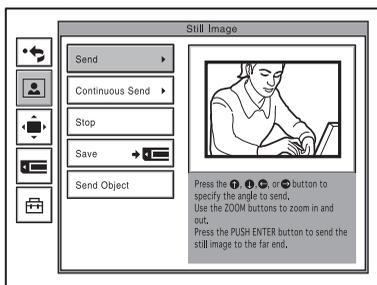
## Information



This menu is used to display the current setting status of the Communication Terminal. The menu appears when you select “Information” on the launcher menu.

*For details on the Information, see pages 76 to 77.*

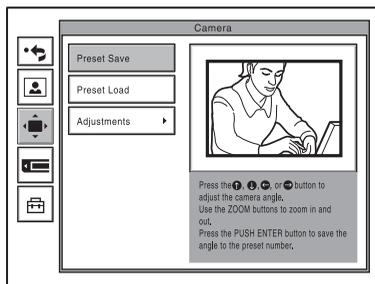
## Still Image menu



The Still Image menu is used to control still images. The menu appears when you select “Menu” on the launcher menu, and then select  when it appears.

*For details on the Still Image menu, see pages 113 to 120.*

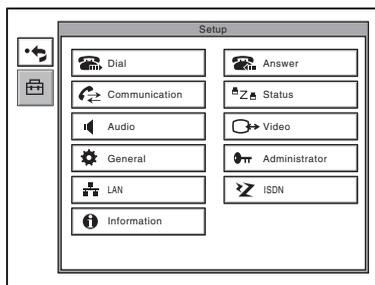
## Camera menu



The Camera menu is used to adjust the camera angle or to zoom the displayed image. The menu appears when you select “Menu” on the Launcher menu, and then select  when it appears.

*For details on the Camera menu, see page 94 to 99.*

## Setup menu (for the administrator)



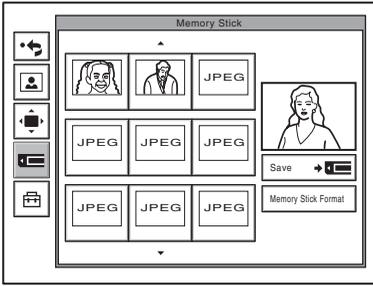
The Setup menu for the administrator is used to set various detailed items on the system. The menu can be displayed by holding down the MENU button on the Remote Commander.

### Note

You can also display the Setup menu for the administrator by pressing the numeric button 9 on the Remote Commander twice while the Setup menu (Initial Setup) or the screen in communication is displayed.

*For details on the Setup menu (for the administrator), see pages 43 to 67.*

## Memory Stick menu

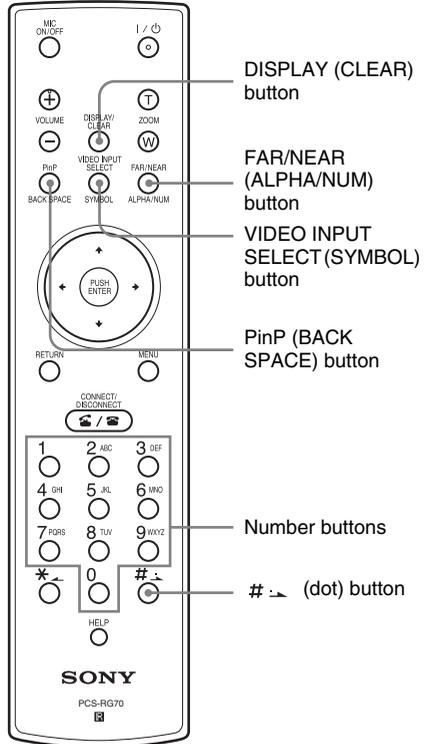


The Memory Stick menu is used to use “Memory Sticks”. The menu is not available if there is no “Memory Stick” inserted in the Communication Terminal. The menu appears when you select “Menu” on the launcher menu, and then select  when it appears.

*For details on the Memory Stick menu, see pages 108 to 112 and pages 118 to 120.*

## Entering Characters

This section explains how to enter the letters, numbers or symbols on the text box in the menu using the Remote Commander.



### To enter letters or numbers

- 1** Press the FAR/NEAR (ALPHA/ NUM) button repeatedly to enable the letters or numbers to be input.
- 2** Press the number buttons repeatedly to enter the letters or numbers that you want.  
You can enter the letter shown on each button by pressing it repeatedly.  
You can enter the number shown on each button by pressing it.

### **To enter a symbol**

Press the VIDEO INPUT SELECT (SYMBOL) button repeatedly to select the desired symbol. Pressing the 0 button repeatedly also enables you to enter a symbol.

### **To enter a dot (.) for an IP address**

Press the # .> button.

### **To delete a character**

Press the PinP (BACK SPACE) button. The last entered character is deleted.

### **To delete all characters in a line**

Move the cursor to the line to be deleted, then press the DISPLAY (CLEAR) button.

#### **Note**

When you press the HELP button on the Remote Commander to show balloon helps or help screens, you can hide only the balloon help used for entering characters. Select "Character Input Help" from the General Setup menu, then select "Off". (See page 53.)

# Chapter 2: Registration and Setup for System Administrators

This chapter describes the registration and settings to be carried out by the system administrator. The chapter is intended to be read by the system administrator.

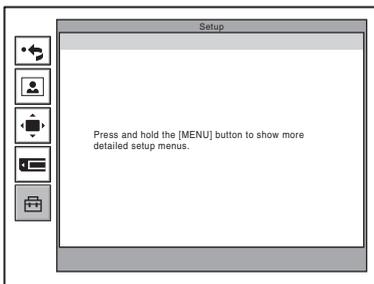
## Registering Local Information

Before starting a conference, register the required information on the local terminals of the system using the Setup menu for administrator. This section describes how to display the Setup menus for the administrator and gives a introduction to the menus.

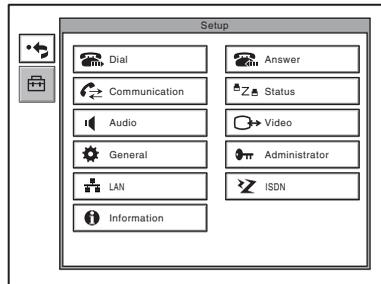
### Opening the Setup Menu for the Administrator

- 1 Press the MENU button on the Remote Commander, or use the **↑**, **↓**, **←** or **→** button to select "MENU" in the launcher menu, then press the PUSH ENTER button.

The Setup menu appears on the monitor screen.



- 2 Hold down the MENU button. The Setup menu for the administrator appears on the monitor screen.



### Note

You can also display the Setup menu for the administrator by pressing the numeric button 9 on the Remote Commander twice while the Setup menu or the screen in communication is displayed.

Choosing the following items from the Setup menu for the administrator opens the respective menus.

**Dial:** Dial Setup menu (see page 44)

**Answer:** Answer Setup menu (see page 46)

**Communication:** Communication Setup menu (see page 46)

**Status:** Status menu (see page 49)

**Audio:** Audio Setup menu (see page 50)

**Video:** Video Setup menu (see page 52)

**General:** General Setup menu (see page 53)

**Administrator:** Administrator Setup menu (see page 56)

**LAN:** LAN Setup menu (see page 59)

**ISDN:** ISDN Setup menu (see page 64)

**Information:** Information menu (see page 67)

- 3 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the menu you want to set, then press the PUSH ENTER button.

The selected setup menu appears.

The screenshot shows a window titled "Dial Setup" with a "Page: 1/2" indicator. It contains five rows of settings, each with a label and a dropdown menu:

Line I/F	IP
Bonding	Auto
Telephone Mode	Auto
More Options Enable	Off
User Name Input	Off

At the bottom right, there are "Save" and "Cancel" buttons.

#### 4 Set the respective items.

*For details on individual items, see the relevant menu pages.*

- 5 After the setting is completed, use the **↑**, **↓**, **←** or **→** button to select "Save", then press the PUSH ENTER button. The setting is saved, and the Setup menu (for the administrator) is restored.

#### To cancel the setup

Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select "Cancel", then press the PUSH ENTER button. Or press the RETURN button on the Remote Commander.

#### To page up or down the selected menu

Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the Page box, then press the **→** button to advance the page and the **←** button to go back to the previous page.

## Dial Setup Menu

The Dial Setup menu is used to set the attributes for dialing.

### Page 1/2

This is an identical screenshot to the one above, showing the "Dial Setup" window with the same settings and "Save/Cancel" buttons.

#### Line I/F

Allows you to select the line interface that you normally use.

**IP:** Connects a videoconferencing system via a LAN.

**ISDN:** Connects a videoconferencing system via ISDN.

**ISDN (Telephone):** Connects an audio-only telephone via ISDN (voice meeting).

#### Bonding\*

Allows you to select whether you use a process called bonding to connect multiple ISDN lines.

Through bonding, the connection of one line enables you to automatically connect all other lines.

\* Bonding (Bandwidth on Demand Interoperability Group) is a registered trademark of THE BONDING CONSORTIUM.

**Auto:** Automatically activates the connection through bonding if this feature is available at the remote party.

**On:** Always connects a remote party through bonding.

#### Telephone Mode

Allows you to select the audio compression format when conducting a voice meeting.

**Auto:** Selects an appropriate format automatically.

**G.711μ-law:** Selects the format based on the G.711μ-law standard.

**G.711A-law:** Selects the format based on the G.711A-law standard.

### More Options Enable

Allows you to select whether you can modify individual dial lists in the Dial Setup menu.

**On:** Enables the setting of each dial list. When you select “More Options Enable” in the List Edit menu of the Phone Book, the Dial Setup menu appears.

**Off:** Enables the application of settings to all the dial lists in the Dial Setup menu simultaneously.

### User Name Input

Allows you to select whether to register users names in the communications log before communication starts.

**On:** Select when you want to record user names. Each time dialing takes place, the user name input menu appears.

**Off:** Disables the recording of the user names.

---

## Page 2/2

The screenshot shows a window titled "Dial" with a sub-header "Page: 4 2/2". It contains several rows of settings:

- Prefix: Prefix-None (dropdown)
- Prefix-A: [text input]
- Prefix-B: [text input]
- Prefix-C: [text input]
- Select LAN Prefix: Enable (dropdown)
- LAN Prefix: [text input]

At the bottom, there are "Save" and "Cancel" buttons.

### Prefix

Select the prefix number (call number prefixed to a line number).

**Prefix-None:** Select when you are not using a prefix number.

**Prefix-A:** Select when you use the prefix set in “Prefix-A” on page 2 of the Dial Setup menu.

**Prefix-B:** Select when you use the prefix set in “Prefix-B” on page 2 of the Dial Setup menu.

**Prefix-C:** Select when you use the prefix set in “Prefix-C” on page 2 of the Dial Setup menu.

### Prefix-A

“Prefix” on page 1 of the Dial Setup menu is set to “Prefix-A”, the line number prefixed by the prefix (dial number) registered in this box is dialed.

### Prefix-B

“Prefix” on page 1 of the Dial Setup menu is set to “Prefix-B”, the line number prefixed by the prefix (dial number) registered in this box is dialed.

### Prefix-C

“Prefix” on page 1 of the Dial Setup menu is set to “Prefix-C”, the line number prefixed by the prefix (dial number) registered in this box is dialed.

### Note

Enter “9” when this is required to make an outgoing call.

### Select LAN Prefix

Allows you to select whether to use the LAN prefix.

**Enable:** Enable the LAN prefix.

**Disable:** Disable the LAN prefix.

### LAN Prefix

When connecting via a LAN, the information entered into this box is added to the beginning of the IP address. Select whether to use the LAN prefix in the Select LAN Prefix option.

## Answer Setup Menu

The Answer Setup menu is used to set up call reception.

### Page 1/1

Setting	Value
Auto Answer	On
ISDN MSN	Off
Mic on Answer	On
Reject Answer	On

### Auto Answer

Allows you to select whether the system answers calls automatically.

**Auto Answer:** Answers calls automatically.

When a call comes in, the line is automatically connected.

**Off:** Allows you to answer calls manually.

When a call comes in, the phone rings. If you select “OK” in the “Respond?” message, the line is connected.

### ISDN MSN

Allows you to select whether you are using the Multiple Subscriber Number.

**On:** Select when you use the Multiple Subscriber Number.

**Off:** Select when you do not use the Multiple Subscriber Number.

### Mic on Answer

Allows you to select whether to transmit audio from your site when answering a call from the remote party.

**On:** Transmit audio when answering a call.

**Off:** Do not transmit audio when answering a call.

### Reject Answer

Allows you to select whether to connect a remote party calling during a multipoint videoconference.

**On:** Disables the connection of a remote party.

**Off:** Enables the connection of a remote party.

## Communication Setup Menu

The Communication Setup menu is used to set up communications.

### Note

Contents of the Communication Setup menu vary according to the settings configured by “Individual Settings”, and to whether the MCU software (see page 169) is installed or not.

### Page 1/3

Setting	Value
Individual Settings	Off
Number of Lines	1B
LAN Bandwidth	64Kbps

### Individual Settings

Allows you to select whether to perform transmission, reception, and multipoint settings individually.

**On:** Select to perform transmission, reception, and multipoint settings individually.

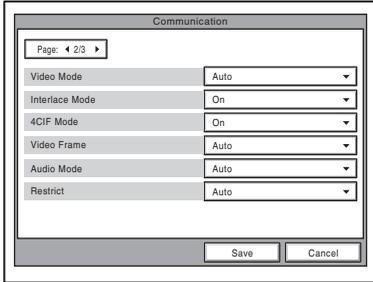
**Off:** Select to perform all settings simultaneously.

### Number of Lines

Allows you to select the number of ISDN channels used in bonding calls. If you set “Individual Settings” to “On” on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

### LAN Bandwidth

Allows you to select the bandwidth used when connected to a LAN. If you set “Individual Settings” to “On” on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.



### Video Mode

Allows you to select the compression format of pictures sent to a remote party. If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

**Auto:** Send pictures matching the format of the remote site.

**H.264:** Send pictures based on the H.264 format.

**MPEG4:** Send pictures based on the MPEG4 format.

**H.263+:** Send pictures based on the H.263+ format.

**H.261:** Send pictures based on the H.261 format (when sending still images using Annex D).

### Interlace Mode

Allows you to specify whether to use the interlace SIF format in video mode.

**On:** Use the interlace SIF format.

**Off:** Not to use the interlace SIF format.

### 4CIF Mode

Allows you to specify whether to use the 4CIF format in video mode.

**On:** Use the 4CIF format.

**Off:** Not to use the 4CIF format.

### Video Frame

Allows you to select the number of video frames during transmission. If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

**Auto:** Switch the number of frames automatically.

**15fps:** Send CIF format pictures at a maximum rate of 15 frames per second.

**30fps:** Send CIF format pictures at a maximum rate of 30 frames per second.

### Audio Mode

Allows you to select the compression format of audio to be sent to a remote party. If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

**Auto:** Send audio matching the compression format of the remote site.

**MPEG4 Audio:** Send audio based on the MPEG4 AAC format.

**G.722.1:** Send audio based on the G.722.1 standard.

**G.722:** Send audio based on the G.722 standard.

**G.729:** Sends audio based on the G.729 standard.

**G.728:** Sends audio based on the G.728 standard.

**G.723.1:** Sends audio based on the G.723.1 standard.

**G.711:** Sends audio based on the G.711 standard.



## Note

When the remote videoconferencing system does not support the audio mode selected by the local site, the mode automatically becomes "G.711".

## Restrict

Allows you to select the ISDN transmission rate at dialing. If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

**Auto:** Select when connecting a remote party via a normal ISDN line.

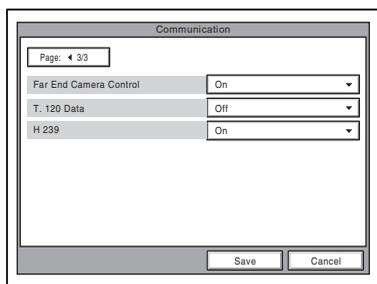
**56K:** Select when connecting a remote party located in a region or country where the ISDN transmission rate is 56 Kbps.

## Note

The system is set to connect an ISDN line at the transmission rate of 64 Kbps by default. However, some countries, such as the USA, and some regions may use the ISDN transmission rate of 64 Kbps and 56 Kbps. You may not communicate with such countries or regions at 64 Kbps, so you must therefore set "Restrict" to "56K" before dialing.

---

## Page 3/3



## Far End Camera Control

Allows you to select whether to enable the control of each other's cameras from each other's site.

**On:** Enables the control of each other's cameras. This is the default setting.

**Off:** Disables the control of each other's cameras.

## T.120 Data

Allows you to select whether to perform data conferences with the T.120 standard using NetMeeting (only for ISDN connections). If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

**On:** Enables T.120 data conferences.

**Off:** Disables T.120 data conferences.

*For details about T.120 data conferences, see "Conducting a Data Conference Using NetMeeting – T.120 Data Conference" on page 138.*

## H.239

Allows you to select whether you can use the dual video presentation mode based on the H.239 standard. If you set "Individual Settings" to "On" on page 1 of the Communication Setup menu, you can perform this setting individually for transmission, reception, and multipoint conferencing.

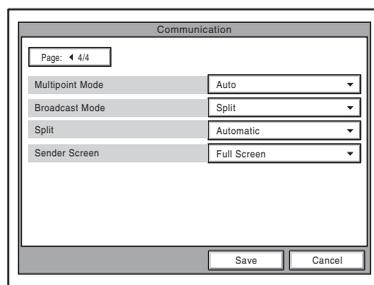
**On:** Enables the dual video presentation mode based on the H.239 standard.

**Off:** Disables the dual video presentation mode based on the H.239 standard.

---

## Page 4/4

This page is only displayed when MCU software (page 169) is installed.



## Multipoint Mode

Allows you to select whether to conduct multipoint videoconferences.

**Auto:** Switch from two-point videoconference to multipoint videoconference automatically.

**On:** Always conducts a multipoint videoconference.

### Broadcast Mode

Allows you to select the broadcast mode.

**Split:** Displays the video from the connected terminals in split windows.

**Voice Activate:** Detects the terminal where the speaker has the loudest voice, and sends the video from this terminal to all other terminals.

### Split

Allows you to select the type of split display used to display local and remote video on a single monitor during a multipoint videoconference.

**Automatic:** When there are up to three terminals, the display is automatically split into four. When there are four or five terminals, the display is automatically split into six.

**Six-screen Mosaic:** The display is split into six, regardless of the number of terminals.

### Sender Screen

Allows you to select the monitor display of transmitting monitors during multipoint videoconference.

**Full Screen:** Display the entire screen.

**Automatic:** When there are up to three terminals, the display is automatically split into four. When there are four or five terminals, the display is automatically split into six.

**Six-screen Mosaic:** The display is split into six, regardless of the number of terminals.

## Status Menu

The Status menu shows the current status of communication.

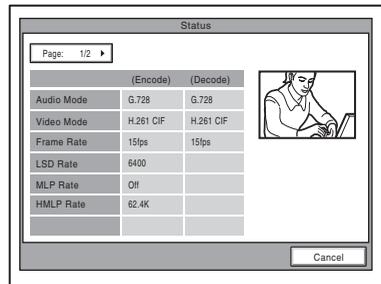
The ISDN Line Status, LAN Line Status or LAN Connection Status will also be displayed depending on the line interface used.

### Communication Status

One page for each point connected to the system will be displayed. The connected point is shown at the upper right corner of the page as "Connection A (or B, C....)". The terminal's name of the point is also displayed at its side.

The items below are shown both in the columns for "Encode" and "Decode". The descriptions under "Encode" show the setting status of the local system and those under "Decode" show the status of the receiving.

### Page 1/2



### Audio Mode

Displays the current audio encoding format.

### Video Mode

Displays the current video encoding format.

### Note

The audio encoding and video encoding formats used for communication with a remote party may differ from the settings in this menu, depending on the status of videoconferencing system on the remote site.

### Frame Rate

Displays the maximum frame rate of motion pictures.

## LSD Rate

Displays the LSD (Low Speed Data) rate.

## MLP Rate

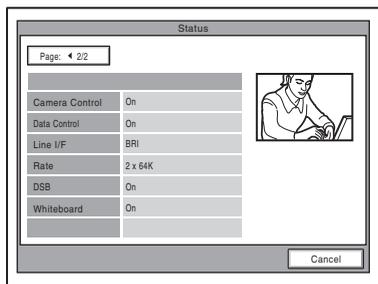
Displays the MLP (Multi Layer Protocol) rate.

## HMLP Rate

Displays the HMLP (High Speed Multi Layer Protocol) rate.

---

## Page 2/2



## Camera Control

Displays whether control of each other's camera is enabled.

## Data Control

Displays whether the T.120 data conference is enabled.

## Line I/F

Displays the line interface you are using.

## Rate

Displays the number of lines connected and transmission rate during communication.

## DSB

Displays whether the PCSA-DSB1S Data Solution Box is connected.

## Whiteboard

Displays whether the mimio Xi attached to your whiteboard is enabled.

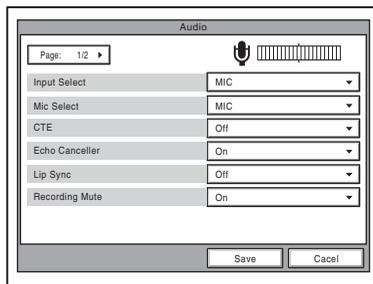
## Audio Setup Menu

The Audio Setup menu is used to set various audio items.

---

## Page 1/2

The level meter indicating the audio input level is displayed.



## Input Select

Allows you to select the audio input.

**MIC:** Inputs audio from the microphone.

**AUX:** Inputs audio from auxiliary external equipment.

**MIC+AUX:** Inputs audio from the microphone and auxiliary external equipment.

## Mic Select

Allows you to select the microphone to be used.

**MIC:** Uses the microphone connected to the Communication Terminal.

**DSB MIC:** Uses the microphone connected to the Data Solution Box.

**LINE:** Uses the microphone connected to the AUDIO IN LINE jack.

## CTE

Allows you to select the input where the CTE-600 Communication Transducer is connected.

**Off:** Does not use the CTE-600 Communication Transducer.

**LINE:** Inputs from the AUDIO IN LINE jack of the Communication Terminal.

**DSB AUX IN:** Inputs from the AUX IN jack of the Data Solution box.

## Echo Canceller

Allows you to select whether to use the echo canceller.

**On:** Enables the echo canceller.

**Off:** Disables the echo canceller.

## Lip Sync

Allows you to select whether to use the Lip Sync function.

**On:** Enables the Lip Sync function.

**Off:** Disables the Lip Sync function.

## Recording Mute

When you connect an audio recording device to the AUDIO IN AUX and AUDIO OUT MIXED jacks to record the conference audio, the recording mute function prevents echo from affecting remote sites. This is only available when “Input Select” is set to “AUX” or “MIC + AUX”.

**On:** Enables the recording mute function.

**Off:** Disables the recording mute function.

## Sound Effect

Allows you to select whether to output sounds when the system starts, a videoconference starts or ends.

**On:** Outputs sounds.

**Off:** Does not output sounds.

## Dial Tone

Allows you to select whether to output a ring-back and busy tones when you are dialing.

**On:** Outputs dial tones.

**Off:** Does not output dial tones.

## Ringer Tone

Allows you to select whether to output a ringer tone when you receive a call.

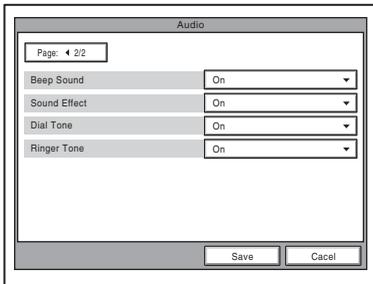
**On:** Outputs the ringer tone.

**Off:** Does not output the ringer tone.

---

## Page 2/2

The level meter indicating the audio input level is displayed.



## Beep Sound

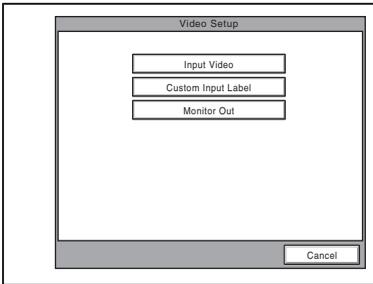
Allows you to select whether the system beeps each time you press a button on the Remote Commander.

**On:** Enables beeping.

**Off:** Disables beeping.

## Video Setup Menu

The following menus appear when you select “Video” on the Setup menu for the administrator. Select the desired menu.



**AUX1:** Selects the video signal from the device connected to the MAIN AUX IN connector.

### SUB

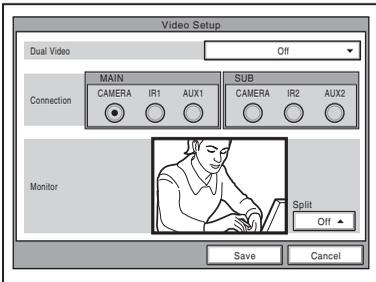
Allows you to select the video input for Input 2.

**CAMERA:** Selects the video signal from the device connected to the SUB CAMERA connector.

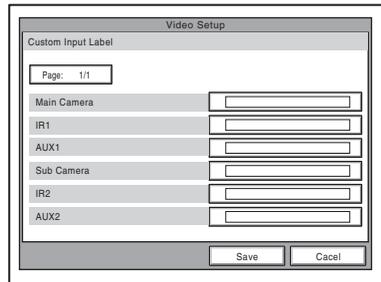
**IR2:** Selects the video signal from the optional PCS-DS150/DS150P Document Stand.

**AUX2:** Selects the video signal from the device connected to the SUB AUX IN connector.

## Video Input Page 1/1



## Custom Input Label Page 1/1



### Dual Video

Allows you to split the display in two.

**On:** Enables dual video.

**Off:** Disables dual video.

### Split

Allows you to split the display in two.

**Off:** Does not split the display.

**Horizontal:** Splits the display horizontally.

**Vertical:** Splits the display vertically.

### MAIN

Allows you to select the video input for Input 1.

**CAMERA:** Selects the video signal from the device connected to the MAIN CAMERA connector.

**IR1:** Selects the video signal from the optional PCS-DS150/DS150P Document Stand.

Allows you to set the names displayed in the Video Input Select menu.

**Main Camera:** Allows you to enter the name displayed when “Main Camera” is selected in the Video Input Select screen.

**IR1:** Allows you to enter the name displayed when “IR1” is selected in the Video Input Select screen.

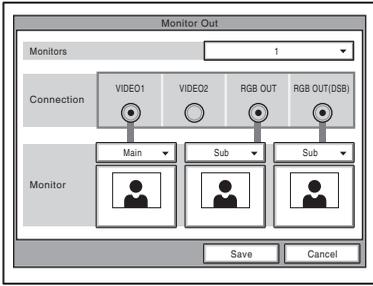
**AUX1:** Allows you to enter the name displayed when “AUX1” is selected in the Video Input Select screen.

**Sub Camera:** Allows you to enter the name displayed when “Secondary camera” is selected in the Video Input Select screen.

**IR2:** Allows you to enter the name displayed when “IR2” is selected in the Video Input Select screen.

**AUX2:** Allows you to enter the name displayed when “AUX2” is selected in the Video Input Select screen.

## Monitor Out



### Monitors

Allows you to specify the number of monitors connected to the system.

- 1:** One monitor connected.
- 2:** Two monitors connected.
- 3:** Three monitors connected.

### Connection

Select the connector(s) used to connect the monitor(s).

**VIDEO 1:** Select when the monitor is connected to the VIDEO 1 connector.

**VIDEO 2:** Select when the monitor is connected to the VIDEO 2 connector.

**RGB OUT:** Select when the monitor is connected to the RGB OUT connector of the main unit.

**RGB OUT (DSB):** Select when the monitor is connected to the RGB OUT connector of the Data Solution Box.

### Monitor

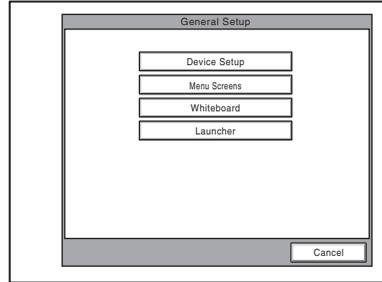
Select whether to use the connected monitor as the sub- or main monitor.

**Main:** The connected monitor is used as the main monitor.

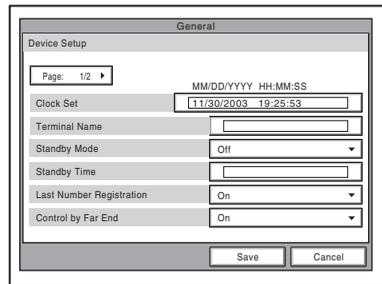
**Sub:** The connected monitor is used as a sub-monitor.

## General Setup Menu

The following menus appear when you select “General” on the Setup menu for the administrator. Select the desired menu.



## Device Setup Page 1/2



### Clock Set

Enter the current date and time.

### Terminal Name

Input the terminal name to report when the system is connected to the remote system.

### Standby Mode

Allows you to select whether the Communication Terminal enters standby mode if idle for a specified period of time.

**On:** Allows the system to go on standby.

**Off:** Does not allow the system to go on standby.

### Standby Time

Specify the time the system must remain idle before entering the standby mode. This time can be between 1 and 99 minutes.

For details on the standby mode, see “Standby Mode Function” on page 29.

### Last Number Registration

Allows you to select whether to register the remote party in the Phone Book after the conference is finished.

**On:** If the remote party is not registered in the Phone Book, the “Register this participant in the list?” message appears on the monitor screen when conference finishes. When you select “OK”, the List Edit menu opens.

**Off:** The message above does not appear and remote party registration does not take place.

### Control by Far End

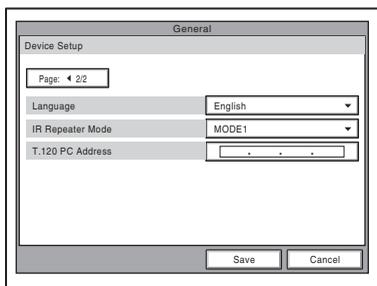
When “Far End Camera Control” is set to “On” in the Communication Setup menu, you can temporarily reject the camera control command transmitted by the remote party.

**On:** Accepts the camera control command.

**Off:** Rejects the camera control command.

---

## Device Setup Page 2/2



### Language

Allows you to select the menu and display language used by the system. You can select from the following languages: English, French, German, Japanese, Spanish, Italian, Simplified Chinese, and Portuguese.

### IR Repeater Mode

Allows you to select the Remote Controller mode of the IR repeater. You should normally select “MODE 1”.

**MODE 1:** Select when using mode 1. This setting does not usually need to be changed.

**MODE 2:** Select when using mode 2. Select this mode when the system does not operate properly under “MODE 1”.

**MODE 3:** Select when using mode 3.

**MODE 4:** Select when using mode 4.

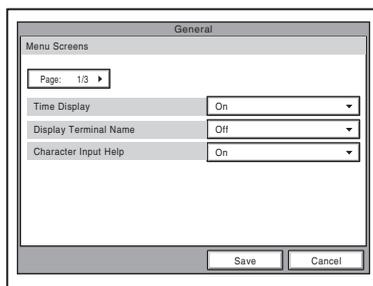
### T.120 PC Address

When conducting a data conference based on the T.120 standard using NetMeeting, enter the IP address of the computer. (Used for ISDN connections.)

For details on data conferences based on the T.120 standard, see “Conducting a Data Conference Using NetMeeting – T.120 Data Conference” on page 138.

---

## Menu Screens Page 1/3



### Time Display

Allows you to select whether you display the elapsed time on the monitor screen during a conference.

**On:** Displays the elapsed time.

**Off:** Does not display the elapsed time.

### Note

During communication, some items that cannot be modified are also displayed.

### Display Terminal Name

Allows you to select whether to display the connected terminal names on the monitor screen at the time of disconnection.

**Off:** Not to display the terminal names.

**Show temporarily:** Display the terminal names for a brief moment.

**Always show:** Display the terminal names.

## Character Input Help

Allows you to select whether to display help text when entering characters and numbers.

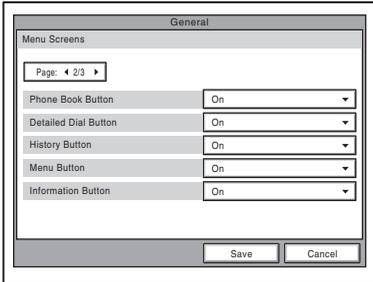
**On:** Display help.

**Off:** Not to display help.

---

## Menu Screens 2/3

Allows you to select whether to display menus and buttons of the launcher screen.



### Phone Book Button

**On:** Display "Phone Book".

**Off:** Not to display "Phone Book".

### Detail Dial Button

**On:** Display "Detail Dial".

**Off:** Not to display "Detail Dial".

### History Button

**On:** Display "History".

**Off:** Not to display "History".

### Menu Button

**On:** Display "Menu".

**Off:** Not to display "Menu".

### Information Button

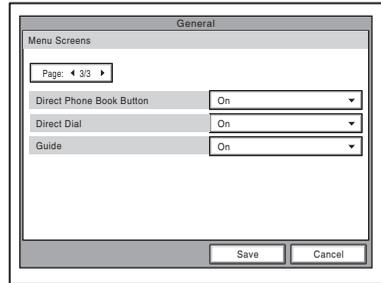
**On:** Display "Information".

**Off:** Not to display "Information".

---

## Menu Screens 3/3

Allows you to select whether to display menus and buttons of the launcher screen.



### Direct Phone Book Button

**On:** Display "Direct Phone Book".

**Off:** Not to display "Direct Phone Book".

### Direct Dial

**On:** Display the Direct Dial text box.

**Off:** Not to display the Direct Dial text box.

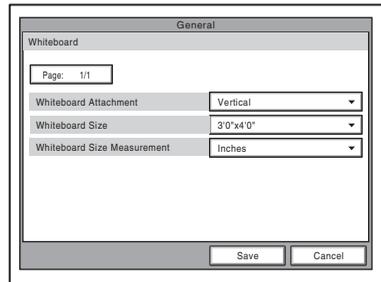
### Guide

**On:** Display the guide.

**Off:** Not to display the guide.

---

## Whiteboard Page 1/1



### Whiteboard Attachment

Allows you to select whether to attach the optional mimio-Xi vertically or horizontally on a whiteboard.

**Vertical:** Attaches the mimio-Xi vertically on a whiteboard.

**Horizontal:** Attaches the mimio-Xi horizontally on a whiteboard.

## Whiteboard Size

Allows you to select the size (height × width) of the whiteboard you are using. The sizes shown in the menu change according to “Whiteboard Attachment” setting.

“**Vertical**” setting: Select from 2'0" × 3'0" (0.6 × 0.9 m), 3'0" × 4'0" (0.9 × 1.2 m), 4'0" × 6'0" (1.2 × 1.8 m), and 4'0" × 8'0" (1.2 × 2.4 m).

“**Horizontal**” setting: Select from 3'0" × 2'0" (0.9 × 0.6 m), 4'0" × 3'0" (1.2 × 0.9 m), 6'0" × 4'0" (1.8 × 1.2 m), and 8'0" × 4'0" (2.4 × 1.2 m).

## Whiteboard Size Measurement

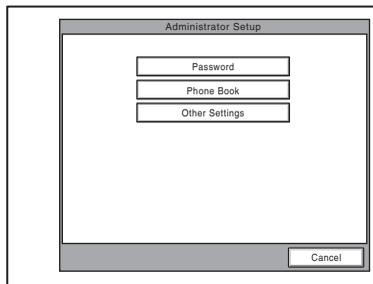
Allows you to select whether to display the whiteboard size in inches or meters.

**Inches:** Displays the whiteboard size in inches.

**Meters:** Displays the whiteboard size in meters.

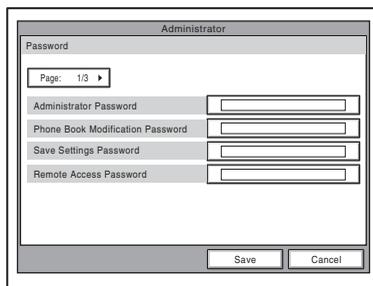
## Administrator Setup Menu

The following menus appear when you select “Administrator” on the Setup menu for the administrator. Select the desired menu.



The Administrator Setup menu is used for the system administrators. If you have set the password with this menu, you need to enter it when accessing the setup menus or Phone Book menus to change the items. Entering the password is also required to access the Administrator Setup menu.

## Password Page 1/3



### Administrator Password

Set the system administrator password. This allows the system administrator to modify Administrator Setup and Phone Book menu items.

### Phone Book Modification Password

Set the password used to modify the Phone Book.

### Save Settings Password

Set the password used to save settings.

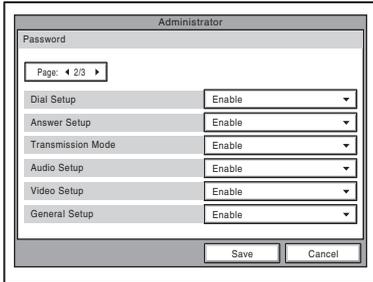
## Remote Access Password

Set the password to access the system through a Web browser. Access from a Web browser can also be enabled by entering the administrator password.

---

### Password Page 2/3

Specifies whether to require a password when saving each setting.



#### Dial Setup

**Enable:** Requires the password when saving the Dial Setup settings.

**Disable:** Does not require the password when saving the Dial Setup settings.

#### Answer Setup

**Enable:** Requires the password when saving the Answer Setup settings.

**Disable:** Does not require the password when saving the Answer Setup settings.

#### Transmission Mode

**Enable:** Requires the password when saving the Communication Setup settings.

**Disable:** Does not require the password when saving the Communication Setup settings.

#### Audio Setup

**Enable:** Requires the password when saving the Audio Setup settings.

**Disable:** Does not require the password when saving the Audio Setup settings.

#### Video Setup

**Enable:** Requires the password when saving the Video Setup settings.

**Disable:** Does not require the password when saving the Video Setup settings.

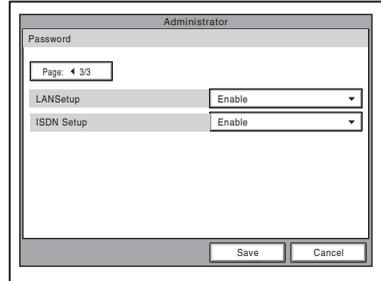
## General Setup

**Enable:** Requires the password when saving the General Setup settings.

**Disable:** Does not require the password when saving the General Setup settings.

---

### Password Page 3/3



#### LAN Setup

**Enable:** Requires the password when saving the LAN Setup settings.

**Disable:** Does not require the password when saving the LAN Setup settings.

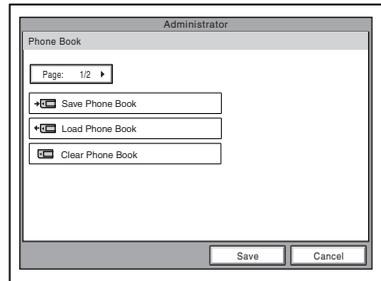
#### ISDN Setup

**Enable:** Requires the password when saving the ISDN Setup settings.

**Disable:** Does not require the password when saving the ISDN Setup settings.

---

### Phone Book Page 1/2



#### Save Phone Book

Allows you to save the data in the Phone Book on a "Memory Stick". The data already on the "Memory Stick" is then overwritten.

#### Load Phone Book

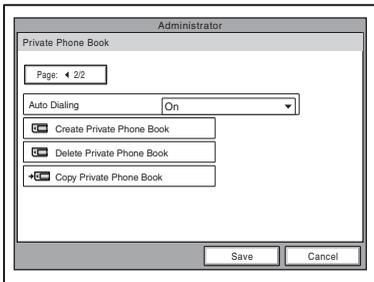
Allows you to load the data in the Phone Book from a "Memory Stick". The data already in the Phone Book is then overwritten.

## Clear Phone Book

Allows you to delete a Phone book on a “Memory Stick” inserted into the system.

---

## Private Phone Book Page 2/2



### Auto Dialing

Allows you to automatically contact the remote parties of the selected Private Phone Book on a “Memory Stick” when you insert it into the system.

**On:** Enables automatic dialing.

**Off:** Disables automatic dialing.

### Create Private Phone Book

Allows you to create an empty folder and file for a Private Phone Book on a “Memory Stick” inserted into the system.

### Delete Private Phone Book

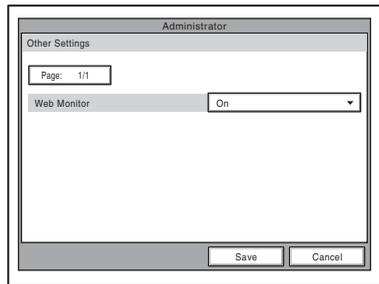
Allows you to delete the Private Phone Book on a “Memory Stick” inserted into the system.

### Copy to Private Phone book

Allows you to copy the entire contents of the Phone Book to a Private Phone Book on a “Memory Stick” inserted into the system.

---

## Other Settings Page 1/1



### Web Monitor

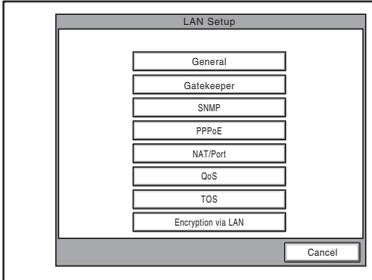
Allows you to permit the monitoring conference status through a Web browser (automatic update of JPEG images).

**On:** Permits monitoring with a Web browser.

**Off:** Does not permit monitoring with a Web browser.

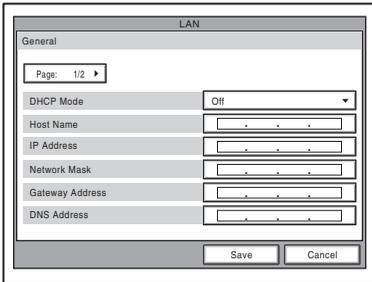
## LAN Setup Menu

The following menus appear when you select “LAN” on the Setup menu for the administrator. Select the desired menu.



For details about the settings, consult your network administrator.

### General Page 1/2



#### DHCP Mode

Allows you to select whether the Dynamic Host Configuration Protocol (DHCP) server is enabled.

**Auto:** The IP address network mask, gateway and DNS addresses are automatically assigned. You should confirm the assigned IP address in the launcher menu or the Information menu after the LAN connection is established.

**Off:** Disables the DHCP server. In this case, enter an IP address, network mask, gateway and DNS addresses.

#### Host Name

Enter the host name.

#### IP address

Enter the IP address.

#### Network Mask

Enter the network mask.

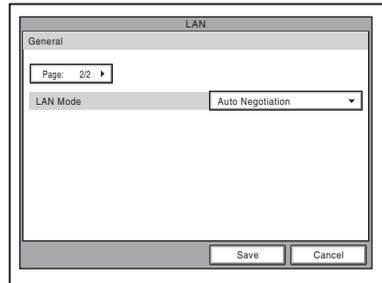
#### Gateway Address

Enter the default gateway address.

#### DNS Address

Enter the DNS (Domain Name System) address.

### General Page 2/2



#### LAN Mode

Allows you to select the interface type and the communication mode of the LAN connection.

**Auto Negotiation:** The interface type and the communication mode are detected automatically.

**100Mbps Full Duplex:** Connects via 100BASE-TX in full duplex mode.

**100Mbps Half Duplex:** Connects via 100BASE-TX in half duplex mode.

**10Mbps Full Duplex:** Connects via 10BASE-T in full duplex mode.

**10Mbps Half Duplex:** Connects via 10BASE-T in half duplex mode.

## Gatekeeper Page 1/1

Gatekeeper

Page: 1/1

Gatekeeper Mode: Off

Gatekeeper Address: [ ]

User Alias: [ ]

User Number: [ ]

Save Cancel

### Gatekeeper Mode

Allows you to select whether to use the gatekeeper to control access to a LAN. Using the gatekeeper allows you to dial using the user name or user number.

**Auto:** Automatically detects the gatekeeper and uses it.

**On:** Enables the gatekeeper.

**Off:** Disables the gatekeeper.

### Gatekeeper Address

Enter the address of the gatekeeper used when "Gatekeeper Mode" is set to "On".

### User Alias

Enter the user name (H.323 alias) registered in the gatekeeper.

### User Number

Enter the user number (E.164 number) registered in the gatekeeper.

## SNMP Page 1/1

SNMP

Page: 1/1

SNMP Mode: Off

Trap Destination: [ ]

Community: Public

Description: Videoconference Device

Location: [ ]

Contact: [ ]

Save Cancel

### SNMP Mode

Allows you to select whether the Simple Network Management Protocol (SNMP) agent is enabled.

**On:** Enables the SNMP agent.

**Off:** Disables the SNMP agent.

### Trap Destination

Enter the address of the trap destination SNMP manager.

### Community

Enter the community name managed by the SNMP manager. By default, this is "public" and this setting does not normally need to be changed.

### Description

Enter the description of this terminal. By default, this is "Videoconference Device" and this description does not need to be changed.

### Location

Enter the location where this terminal is installed.

### Contact

Enter information about the terminal administrator.

## PPPoE Page 1/2

PPPoE

Page: 1/2

PPPoE: Off

PPPoE User Name: [ ]

PPPoE Password: [ ]

Save Cancel

### PPPoE

Allows you to select whether to use PPPoE for LAN connection. When using PPPoE, you can use the B FLET'S\* or FLET'S ADSL service without connecting a router.

**On:** Uses PPPoE for LAN connection.

**Off:** Does not use PPPoE.

### Note

Operations of PPPoE for LAN connection are presently verified only for the Japanese NTT B FLET'S and FLET'S ADSL services.

\* "FLET'S" is a trademark of NTT East and NTT West Corporations in Japan.

## PPPoE User Name

Enter a user name when you use PPPoE for LAN connection.

## PPPoE Password

Enter a password when you use PPPoE for LAN connection.

---

## PPPoE Page 2/2

The screenshot shows a window titled "LAN" with a sub-tab "PPPoE". The page number is "Page: 2/2". The settings are as follows:

Fixed IP for PPPoE	Off
Fixed IP Address for PPPoE	[Empty text box]
PPPoE DNS	Obtain automatically
Primary DNS	[Empty text box]
Secondary DNS	[Empty text box]

Buttons: Save, Cancel

### Fixed IP for PPPoE

Select whether to make a PPPoE connection using a fixed IP address.

**On:** Uses a fixed IP address for a PPPoE connection.

**Off:** Does not use a fixed IP address for a PPPoE connection.

### Fixed IP Address for PPPoE

Enter an IP address when "Fixed IP for PPPoE" is set to "On".

### PPPoE DNS

Allows you to select whether to obtain DNS server addresses automatically or to specify them manually when connecting to a LAN using PPPoE.

**Specify** Allows you to specify DNS server addresses.

**Obtain automatically:** Assigns DNS server addresses automatically.

### Primary DNS

Enter a primary DNS address.

### Secondary DNS

Enter a secondary DNS address.

---

## NAT/Port Page 1/1

The screenshot shows a window titled "LAN" with a sub-tab "NAT/Port". The page number is "Page: 1/1". The settings are as follows:

NAT Mode	Off
NAT Address	[Empty text box]
Port Number Used	[Empty text box]
TCP Port Number	2253
UDP Port Number	49152

Buttons: Save, Cancel

### NAT Mode

Allows you to select whether you connect the system to a local network using Network Address Translation (NAT), which allows one IP address to be shared by several computers on the same LAN.

**On:** Enables NAT mode.

**Off:** Disables NAT mode.

### NAT Address

Enter the IP address of a global network to be used for NAT mode.

### Port Number Used

Allows you to select whether to fix the TCP port and UDP port numbers.

**Custom:** Uses the port numbers set by the user.

**Default:** Uses the default port numbers: 2253 as the TCP port number and 49152 as the UDP port number.

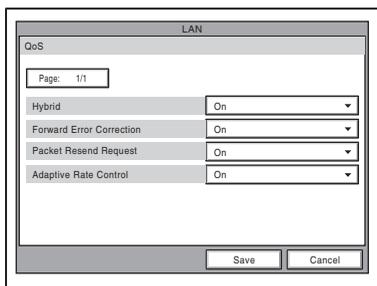
### TCP Port Number

When "Port Number Used" is set to "Custom", enter the TCP port number.

### UDP Port Number

When "Port Number Used" is set to "Custom", enter the UDP port number.

*For details on the port numbers used, See "List of Port Numbers Used on the PCS-PG70/PG70P" on page 220.*



### Hybrid

Allows you to select whether to use forward error correction, send requests to resend packets, and use adaptive rate control depending on the network status.

**On:** Forward Error Correction, Packet Resend Request, or Adaptive Rate Control is used automatically depending on the network status.

**Off:** The three functions above are not used automatically depending on the network status.

### Forward Error Correction

Allows you to select whether received packets containing errors are corrected upon reception.

**On:** Corrects packets.

**Off:** Does not correct packets.

### Packet Resend Request

Allows you to select whether to request packet to be resent when packet losses occur during communication.

**On:** Requests packets to be resent.

**Off:** Does not request packets to be resent.

### Adaptive Rate Control

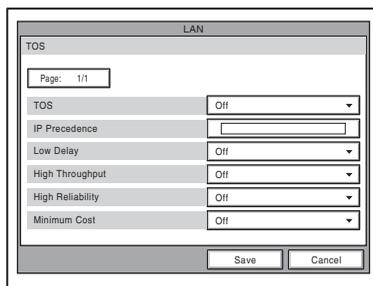
Allows you to select whether to always optimize the LAN bandwidth.

**On:** Always optimizes the LAN bandwidth.

**Off:** Does not optimize the LAN bandwidth.

#### Note

You can only configure “Adaptive Rate Control” when “Packet Resend Request” is set to “Off”. When “Packet Resend Request” is set to “On”, “Adaptive Rate Control” is also always set to “On”.



### TOS

Allows you to select how to define the Type of Service (TOS) field.

**Off:** Does not define the TOS field.

**IP Precedence:** Defines the TOS field as IP Precedence.

**Diffserve:** Defines the TOS field as Diffserve.

### IP Precedence

Enter the IP Precedence value, between 0 and 7.

### Low Delay

Allows you to select whether to specify the Low Delay bit rate of the TOS field.

**On:** Specifies the Low Delay bit rate of the TOS field.

**Off:** Does not specify the Low Delay bit rate of the TOS field.

### High Throughput

Allows you to select whether to specify the High Throughput bit rate of the TOS field.

**On:** Specifies the High Throughput bit rate of the TOS field.

**Off:** Does not specify the High Throughput bit rate of the TOS field.

### High Reliability

Allows you to select whether to specify the High Reliability bit rate of the TOS field.

**On:** Specifies the High Reliability bit rate of the TOS field.

**Off:** Does not specify the High Reliability bit rate of the TOS field.

## Minimum Cost

Allows you to select whether to specify the Minimum Cost bit rate of the TOS field.

**On:** Specifies the Minimum Cost bit rate of the TOS field.

**Off:** Does not specify the Minimum Cost bit rate of the TOS field.

## Diffserve

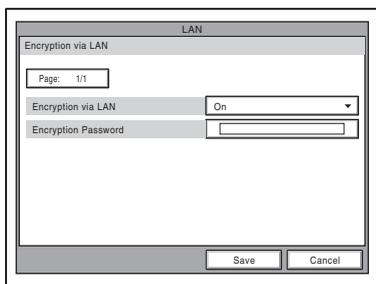
Enter the Diffserve value, between 0 and 64. This item only appears when “TOS” is set to “Diffserve”.

different encryption password. You can start an unencrypted videoconference with a terminal connected via an ISDN.

- The encryption function is not available when you connect to other terminals through cascade LAN and ISDN connections.

---

## Encryption via LAN Page 1/1



The screenshot shows a configuration window titled "LAN" with a sub-header "Encryption via LAN". It includes a "Page: 1/1" indicator. The main configuration area has two rows: "Encryption via LAN" with a dropdown menu currently set to "On", and "Encryption Password" with an empty text input field. At the bottom of the window are "Save" and "Cancel" buttons.

Configure the “Encryption via LAN” function to conduct encrypted videoconferences. When you enable this function, only those terminals who input the password defined here can connect to the videoconference, allowing for greater security.

*For details about encrypted videoconferences, see chapter 7.*

## Encryption via LAN

Allows you to select whether to use the encryption feature for videoconferences.

**On:** Uses the encryption feature.

**Off:** Does not use the encryption feature.

## Encryption Password

Enter the password necessary to start an encrypted videoconference.

### Notes

- When “Encryption via LAN” is set to “On”, you cannot start a videoconference if your terminal is not equipped with the encryption feature, a terminal with “Encryption via LAN” set to “Off”, or a terminal with a

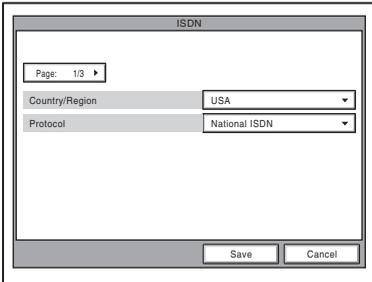
## ISDN Setup Menu

The ISDN Setup menu is used to set up ISDN lines.

### Note

The ISDN Setup menu only appears when the optional PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit is installed in your system.

## ISDN Page 1/4



### Country/Region

Allows you to select the country or region where you are using the Communication Terminal. You can select between Europe (except France), France, Japan, USA, China, and Other.

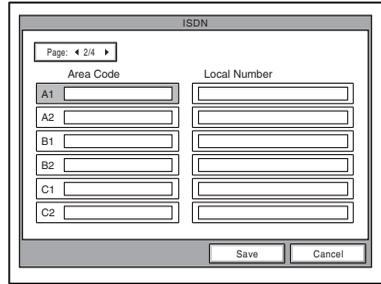
### Protocol

Allows you to select the protocol of the ISDN lines to be used. You can select Japan (NTT), Euro ISDN, Euro ISDN (France), National ISDN, 5ESS (P-MP), 5ESS (P-P), or DMS-100, depending on the interface that you are using.

You can select Japan (NTT), Euro ISDN, Euro ISDN (France), National ISDN, 5ESS(P-MP), 5ESS(P-P) or DMS-100 depending on the interface you are using.

*For customers in the USA and Canada, see "SPID Settings for Customers in the USA and Canada" on page 65.*

## ISDN Page 2/4



### Area Code

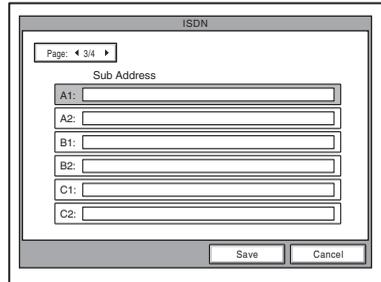
Enter the area code of the ISDN line to be used. Do not enter the first 0 of the area code.

### Local Number

Enter the line number (local number) of the ISDN line to be used.

## ISDN Page 3/4

The A1 to C2 fields appear.



### Sub Address

Enter sub-addresses when registering them. Sub-addresses can only be composed of numbers.

### Notes

- When you select an empty field and then press the PUSH ENTER button of the Remote Commander, the setting of the previous field is copied into the selected field.

- CH1 to Ch23 (T1), Ch1 to Ch30 (E1) text boxes appear when using the PCSA-PRI ISDN Unit.

- When using the PCSA-B768S ISDN Unit, the D1 to F2 text boxes appear on the next page. Fill in the D1 to F2 text boxes according to the lines that you are using.

### ISDN Page 4/4

### SPID

Enter SPID (Service Profile Identifier).

*For customers in the USA and Canada, see “SPID Settings for Customers in the USA and Canada” on this page.*

### Auto SPID

This item is used only for customers in the USA and Canada.

*For details, see “SPID Settings for Customers in the USA and Canada” on page 65.*

## SPID Settings for Customers in the USA and Canada

If you connect to an ISDN switch type, configuration of SPID (Service Profile Identifier) is required. When you select “Auto SPID” in the ISDN Setup Wizard (See page 34), the “Area Code”, “Local Number” and “SPID” setup items are automatically set. If “Auto SPID” is not available in your area, set up SPID manually using the ISDN Setup menu.

- 1 Open the ISDN Setup menu.
- 2 Enter the country code in the Country/Region Code text box depending on the network switch type you are using.

**AT&T 5ESS (National ISDN), NTI DMS-100 (National ISDN):** Enter “1”.

**AT&T 5ESS (Multipoint Custom ISDN):** Enter “1\*10”.

**AT&T 5ESS (Point-to-Point Custom ISDN):** Enter “1\*12”.

**NTI DMS-100 (Custom ISDN):** Enter “1\*11”.

- 3 Open page 2 of the ISDN Setup menu to enter the LDN (Local Directory Number) in the Local Number text boxes.

**When you use the AT&T 5ESS (Multipoint Custom ISDN) or AT&T 5ESS (Point-to-Point Custom ISDN) switch type**

Enter the same LDNs in the A1 and A2 (B1 and B2, C1 and C2, depending on the number of lines you use) text boxes.

The screenshot shows the 'ISDN' setup menu. At the top, it says 'Page: < 2/7 >'. Below that, there are two columns: 'Area Code' and 'Local Number'. Under 'Area Code', there are input boxes for A1 (408), A2 (408), B1, B2, C1, and C2. Under 'Local Number', there are input boxes for A1 (9876532), A2 (9876532), B1, B2, C1, and C2. At the bottom, there are buttons for 'Auto SPID', 'Save', and 'Cancel'.

**When you use the NTI DMS-100 (National ISDN) or NTI DMS-100 (Custom ISDN) switch type**

Enter the different LDNs in the A1 and A2 (B1 and B2, C1 and C2, depending on the number of lines you use) text boxes. These switch types are given a separate number for each channel.

The screenshot shows the 'ISDN' setup menu. At the top, it says 'Page: < 2/7 >'. Below that, there are two columns: 'Area Code' and 'Local Number'. Under 'Area Code', there are input boxes for A1 (408), A2 (408), B1, B2, C1, and C2. Under 'Local Number', there are input boxes for A1 (9876543), A2 (9876544), B1, B2, C1, and C2. At the bottom, there are buttons for 'Auto SPID', 'Save', and 'Cancel'.

**When you use the AT&T 5ESS (National ISDN) switch type**

You may enter the same or different numbers in two channels.

**4** Open page 6 (SPID setup menu) to enter the SPID.

The SPID is generally comprised of 12 digits, including a 7 digit LDN (Local Directory Number). Be sure to enter the different SPID number in each of the A1 and A2 (B1 and B2, C1 and C2, depending on the number of lines you use) text boxes if you have entered the separate LDNs in the Local Number text boxes for each channel in step 3.

**For the AT&T 5ESS (National ISDN) and AT&T 5ESS (Multipoint Custom ISDN) switch type**

Enter the SPID in the A1 text box only.

The screenshot shows the 'SPID' setup menu. At the top, it says 'Page: < 6/7 >'. Below that, there are input boxes for A1 (019876532001), A2, B1, B2, C1, and C2. At the bottom, there are buttons for 'Save' and 'Cancel'.

**For the NTI DMS-100 (National ISDN), NTI DMS-100 (Custom ISDN), AT&T 5ESS (National ISDN) switch type**

Enter the different SPID numbers in the A1 and A2 text boxes.

The screenshot shows the 'SPID' setup menu. At the top, it says 'Page: < 6/7 >'. Below that, there are input boxes for A1 (019876543001), A2 (019876544001), B1, B2, C1, and C2. At the bottom, there are buttons for 'Save' and 'Cancel'.

**For the AT&T 5ESS (Point-to-Point Custom ISDN) switch type**

You do not need to set up the SPID, then no entry in the A1 and A2 (B1 and B2, C1 and C2, depending on the number of lines you use) is required.

**Notes**

- If you use the PCSA-B768S ISDN unit and connect 4-6 ISDN lines, the D1-F2 text boxes are shown in pages 3 and 7 of the ISDN Setup menu. Fill in the boxes following steps 3 and 4.
- If you use the PCSA-PRI ISDN unit, Ch1 to Ch23 (T1), or Ch1 to Ch30 (E1) are displayed. Enter the telephone numbers according to the number of channels you will use.

**5** After the settings are completed, select "Save", then press the PUSH ENTER button.

## Information Menu

The Information menu shows the versions of the Communication Terminal and the connected equipment for exclusive use, installed software versions, etc.

Information	
Host Version	Ver X.XX
ISDN UNIT Version	Ver X.XX
USB Version	Ver X.XX
DSP Version	Ver X.XX
Software Option	Multipoint(H.320+H.323)
Option I/F	DSB, ISDN UNIT
Host Name	PCS-G70
IP Address	0. 0. 0. 0
MAC Address	00-00-00-00-00-00

Serial Number 12345

### Host Version

Displays the software version of the Communication Terminal.

### ISDN UNIT Version

Displays the version of the connected PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit.

### DSB Version

Displays the version of the connected PCSA-DSB1S Data Solution Box.

### DSP Version

Displays the version of the built-in DSP (Digital Signal Processor) for audio/video codec.

### Software Option

Displays the optional MCU software installed.

**None:** No MCU software is installed.

**Multipoint (H.323):** The PCSA-M3G70 H.323 MCU software (for LAN) is installed.

**Multipoint (H.320):** The PCSA-M0G70 H.320 MCU software (for ISDN) is installed.

**Multipoint (H.320 + H.323):** Both the PCSA-M0G70 and PCSA-M3G70 MCU software are installed.

### Option I/F

Displays the optional connected equipment.

**None:** No optional equipment is connected.

**ISDN UNIT:** The PCSA-B384S, PCSA-B768S or PCSA-PRI ISDN Unit is connected.

**DSB:** The PCSA-DSB1S Data Solution Box is connected.

**Whiteboard:** A whiteboard is connected.

### Host Name

Displays the host name.

### IP Address

Displays the IP address.

### MAC Address

Displays the MAC address.

### Serial Number

Displays the serial number.



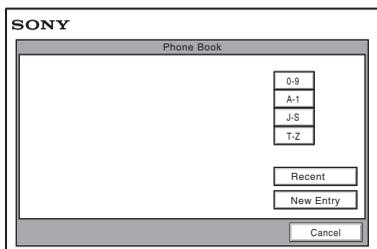
# Registering a Remote Party – Phone Book

You can register the telephone number or IP address of a remote party in the Phone Book, allowing you to dial the party very easily. Up to 500 remote parties can be registered in the Phone Book. You can also store a still image such as a participant's portrait in the index list.

You can also create a Private Phone Book on a "Memory Stick" separately from the Phone Book in the Communication Terminal.

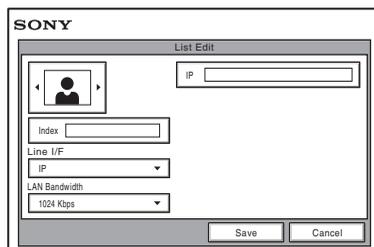
## Registering a New Remote Party

- 1 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select "Phone Book" in the launcher menu, then press the PUSH ENTER button. The Phone Book opens.



- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select "New Entry", then press the PUSH ENTER button.

The List Edit screen appears.



- 3 Enter the name of a remote party in the Index text box.

*For character input, see "Entering Characters" on page 41.*

- 4 Select the line interface you are using to connect to a remote party with "Line I/F".

**IP:** Connects to a videoconferencing system on the remote site via a LAN.

**ISDN:** Connects to a videoconferencing system on the remote site via an ISDN line.

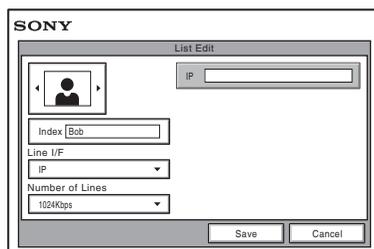
**ISDN (Telephone):** Connects to a phone on the remote site via an ISDN line for a voice meeting.

**Multipoint:** Connects to multipoints for a multipoint videoconference via LAN and ISDN.

The List Edit menu switches according to the selected line interface.

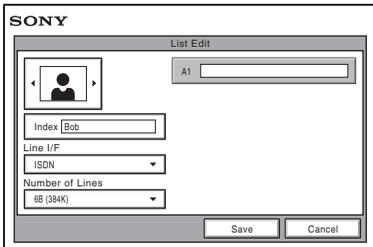
- 5 Set up various items for the line on a remote site.

**When "IP" is selected in step 4**



- ① Enter the IP address of the remote party.  
Enter the host name and domain name when using the DNS server (ex. host.domain). When using the gatekeeper, enter the user name and user number registered in the LAN Setup menu (page 59).
- ② Select the LAN bandwidth to be used.

**When “ISDN” or “ISDN (Telephone)” is selected in step 4**



- ① Enter the telephone number of the remote party in the telephone number text box beside “A”.  
When entering a sub-address, enter an asterisk (\*) between the telephone number and sub-address. Only numbers are usable for a sub-address.  
When “More Options Enable” is set to “On” in the Dial Setup menu (page 44), the A1, A2, B1, B2, C1 and C2 text boxes appear. Enter the number of the remote party in the A1 text box.
- ② Select the number of the ISDN channels to be used for dialing.

- 6 Select the icon or a still image stored on a “Memory Stick” to be registered in the Phone Book.



Press the ◀ or ▶ button to select the icon or a still image, then press the PUSH ENTER button.

**Note**

You cannot select a still image unless a “Memory Stick” in which the still image is stored is inserted.

- 7 Use the ↑, ↓, ◀ or ▶ button to select “Save”, then press the PUSH ENTER button.  
The settings are registered in the Phone Book.

**To connect to the remote party without using bonding**

If the videoconferencing system of the remote party is not equipped with the bonding function, entering one telephone number does not allow you to connect all the line numbers used to connect to the remote party. To connect to the remote party by entering all the ISDN line numbers used, you can set the connection without using the bonding function of this system.  
Set “More Options Enable” to “On” in the Dial Setup menu (page 44), select the More Options button at the lower part of the List Edit menu to open the Dial Setup menu, then set “Bonding” to “Auto”. The A1, A2, B1, B2, C1 and C2 text boxes appear in the List Edit menu. Enter all the telephone numbers for the ISDN lines selected by “Number of Lines”. Up to 6B-channel connection is available when using this method.

**Note**

When you set “Number of Lines” to “2B”, you can connect to the remote party by selecting “ISDN (2B)” from “Line I/F” in the Detail Dial menu.

**To set up more detailed options**

When “More Options Enable” is set to “On” in the Dial Setup menu, the More Options button is shown at the lower part of the List Edit menu.

Select the More Options button with the **▲**, **▼**, **◀** or **▶** button on the Remote Commander and press the PUSH ENTER button to open a menu for more detailed dial settings. You can change the settings of the desired items.

**Note**

The contents set with the More Options button have priority over those set in the Detail Dial Setup menu.

**Changing the Contents of the Phone Book**

You can change the telephone number, IP address, name or setting registered in the Phone Book.

- 1 Open the Phone Book menu.
- 2 Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select the remote party to be changed in the Phone Book menu, then press the PUSH ENTER button.

The submenu appears.

Dial
Edit
Copy
Delete
Cancel

- 3 Press the **▲** or **▼** button on the Remote Commander to select “Edit”, then press the PUSH ENTER button.  
The List Edit menu appears.
- 4 Change the telephone number, IP address, name or setting.
- 5 Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select “Save”, then press the PUSH ENTER button.  
The correction is completed.

## Copying the Setting of the Phone Book Menu

- 1 Open the Phone Book menu.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the remote party to be copied in the Phone Book menu, then press the PUSH ENTER button.  
The submenu appears.
- 3 Press the **↑** or **↓** button on the Remote Commander to select “Copy”, then press the PUSH ENTER button.  
The items for the selected party are copied, and the file name is followed by “-2”. You can use the setting after modifying the necessary items.

## Deleting the Registered Remote Party

Follow the procedure below to delete the remote party from the Phone Book.

- 1 Open the Phone Book menu.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the remote party to be deleted in the Phone Book menu, then press the PUSH ENTER button.  
The submenu appears.
- 3 Press the **↑** or **↓** button on the Remote Commander to select “Delete”, then press the PUSH ENTER button.  
The message “Delete Entry?” appears.
- 4 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “OK”, then press the PUSH ENTER button.  
The selected party is deleted.

### To cancel deleting

Select “Cancel” in step 4, then press the PUSH ENTER button.

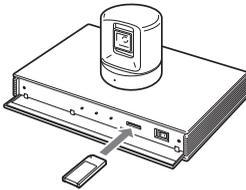
## Creating a Private Phone Book

You can create your own Phone Book (Private Phone Book) on a “Memory Stick”. Once the Private Phone Book is registered, inserting the “Memory Stick” into the Communication Terminal changes the Phone Book menu to the Private Phone Book menu. You can also activate the Auto Dial feature, allowing you to start dialing automatically to one of the lists simply by inserting the “Memory Stick”.

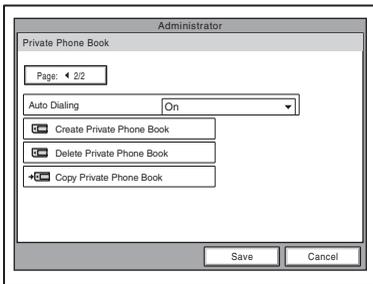
### To register a new remote party in a Private Phone Book

- 1 Insert a “Memory Stick” in which you want to register a remote party into the

Memory Stick slot on the Communication Terminal.  
Insert the “Memory Stick” in the direction of the arrow with the mark facing upward.



- 2 Open “Private Phone Book” of the Administrator Setup menu.



For how to open the menu, see “Registering Local Information” on page 43.

- 3 Select “Create Private Phone Book”.  
An empty folder and file for a Private Phone Book are created in the “Memory Stick”.
- 4 Register a new remote party.  
The procedure is the same as that for registering in the Phone Book. Proceed with steps 2 to 7 in “Registering a New Remote Party” on page 68.

The procedures for how to change the contents of the Private Phone Book, how to delete the registered remote party, or how to copy the setting of the Private Phone Book are the same as those for the Phone Book. Open the Private Phone Book menu and proceed with the steps described on page 70.

---

### To copy all the contents of the Phone Book to the Private Phone Book

Insert the “Memory Stick” in which you want to store the Private Phone Book into the Memory Stick slot on the Communication Terminal, then select “Copy to Private Phone Book” from the “Private Phone Book” of the Administrator Setup menu. All the data registered in the Phone Book are copied to the inserted “Memory Stick”.

---

### To delete the Private Phone Book from the “Memory Stick”

Insert the “Memory Stick” from which you want to delete the registered Private Phone Book into the Memory Stick slot on the Communication Terminal, then select “Delete Private Phone Book” from the “Private Phone Book” of the Administrator Setup menu. All the data are deleted from the inserted “Memory Stick”.

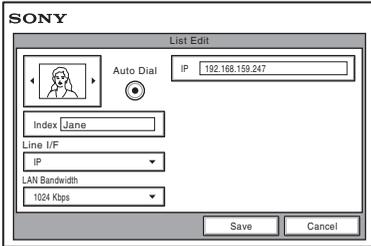
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### To dial a specified list in a Private Phone Book automatically

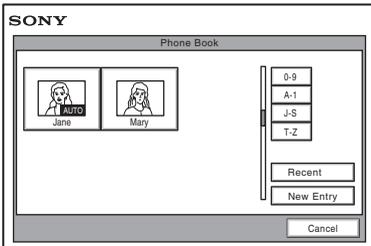
If you set “Auto Dial” in the “Private Phone Book” of the Administrator Setup menu to “On”, you can automatically dial one of the lists registered in the Private Phone Book simply by inserting the “Memory Stick” in which the Private Phone Book is registered.

- 1 Open the Private Phone Book.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the remote party to dial automatically, then press the PUSH ENTER button.

- 3** Press the **▲** or **▼** button on the Remote Commander to select “Edit”, then press the PUSH ENTER button.  
The List Edit menu appears.



- 4** Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select “Auto Dial”, then press the PUSH ENTER button.
- 5** Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select “Save”, then press the PUSH ENTER button.  
The setting is registered and “AUTO” appears on the registered list.



## Chapter 3: Daily Videoconference

This chapter describes how to conduct a videoconference from start to finish after the administrator has completed various registrations and settings for the system.

The videoconference explained here is a point-to-point conference via a LAN connection or ISDN connection using the optional PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit.

*For use of a "Memory Stick" or optional equipment, see chapter 4. To conduct a data conference using the optional PCSA-DSB1S Data Solution Box, see chapter 5. To conduct an encrypted conference via LAN, see chapter 7. To conduct a multipoint conference, see chapter 8.*

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### Starting a Conference by Calling a Remote Party

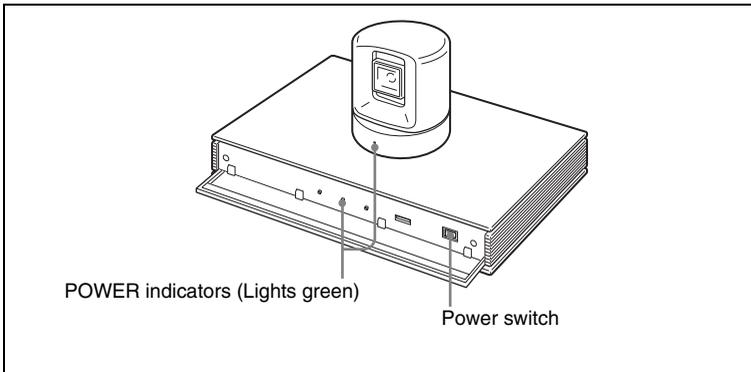
You can start a videoconference with a remote party by dialing. Once you have made a connection to the remote party, you can begin talking just as with a normal phone call and start a videoconference.

#### Turning on the Power

- 1** Turn on the TV monitor.  
When the IR repeater is inserted under the remote sensor of the Sony TV, set the TV to standby mode. When the power of the Communication Terminal is turned on, the TV monitor will turn on simultaneously.
- 2** Turn on other equipment you are using for the videoconference.

- 3** Open the front panel of the Communication Terminal, and then slide the power switch on the right to the on position (I).

The Communication Terminal turns on after a while.



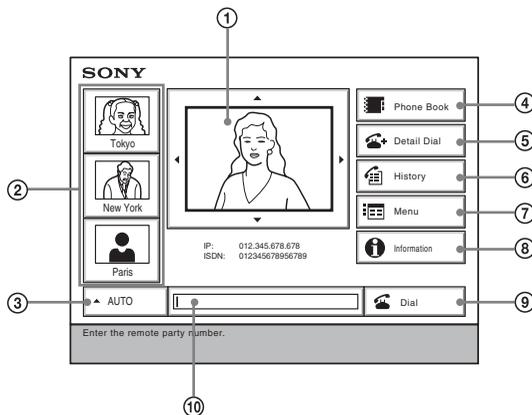
Three indicators on the front of the Communication Terminal and the POWER indicator on the camera light, then only the POWER indicators on both units remain on in green. The launcher menu will appear on the monitor screen and the picture shot by the local camera will also appear in the launcher menu.

**Note**

After the power is turned on, the camera moves automatically for trial operation. Be careful not to catch your finger.

## Using the Launcher Menu

The launcher menu is displayed on the monitor screen when the system is turned on or while it is not connected to a remote party. The launcher menu displays the image shot by the local camera, local system status and buttons to open the menus.



① **Screen**

The image shot by the local camera is displayed.

② **Direct Phone Book button**

The Direct Phone Book function is selected when you select this button by pressing the **▲**, **▼**, **◀** or **▶**, and then the PUSH ENTER button of the Remote Commander. This starts calling the selected remote party.

③ **Line I/F**

Select this button by pressing the **▲**, **▼**, **◀** or **▶** button, and then the PUSH ENTER button on the Remote Commander. Items to be set are displayed. Allows you to select the type of line to be used.

④ **Phone Book button**

The Phone Book is displayed when you select this button by pressing the **▲**, **▼**, **◀** or **▶** button and then the PUSH ENTER button on the Remote Commander.

⑤ **Detail Dial button**

The Detail Dial appears when you select this button by pressing the **▲**, **▼**, **◀** or **▶** button, and then the PUSH ENTER button of the Remote Commander.

⑥ **History button**

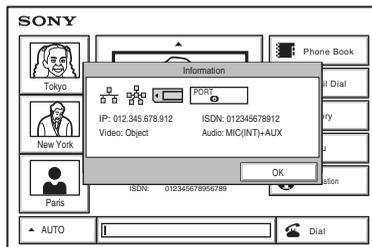
The History appears when you select this button by pressing the **▲**, **▼**, **◀** or **▶** button, and then the PUSH ENTER button of the Remote Commander.

⑦ **Menu button**

You can display the various Setup menus when you select this button by pressing the **▲**, **▼**, **◀** or **▶** button and then the PUSH ENTER button on the Remote Commander.

⑧ **Information button**

The Information menu appears when you select this button by pressing the **▲**, **▼**, **◀** or **▶**, and then the PUSH ENTER button of the Remote Commander.



The following icons or text are displayed in accordance with the system configuration.

Indicator (icon)	Identification	Description
	LAN status	The indicator is shown in dark when the LAN is enabled to use, and in light when it is disabled.
	Multipoint mode	MCU software for multipoint videoconference is installed.
	Memory Stick	“Memory Stick” is inserted.

Indicator (icon)	Identification	Description
	ISDN status	When the optional ISDN Unit is connected, usable ISDN port is shown.
<b>IP:</b>	IP address	Shows the IP address of the local system.
<b>ISDN:</b>	ISDN telephone number	Shows the ISDN telephone number of the local system.
<b>Video:</b>	Video input	<p>The selected video input on the local system is shown.</p> <p><b>Main:</b> Video from the main camera.</p> <p><b>Sub:</b> Video from the secondary camera.</p> <p><b>IR1:</b> Video from the optional PCS-DS150/DS150P Document Stand.</p> <p><b>IR2:</b> Video from the optional PCS-DS150/DS150P Document Stand.</p> <p><b>AUX1:</b> Video from the device connected to the MAIN AUX IN connector.</p> <p><b>AUX2:</b> Video from the device connected to the SUB AUX IN connector.</p> <p><b>Note</b></p> <p>The video inputs are shown as the labels set in the “Custom Input Label” of the Video Setup menu (page 52).</p>
<b>Audio:</b>	Audio input	<p>The selected audio input on the local system is shown.</p> <p><b>MIC (EXT):</b> Sound from an external microphone connected to the Communication Terminal.</p> <p><b>MIC (DSB):</b> Sound from an external microphone connected to the optional PCSA-DSB1S Data Solution Box.</p> <p><b>MIC (AUX):</b> Sound from an external microphone connected to the AUX IN jack on the optional PCSA-DSB1S Data Solution Box.</p> <p><b>AUX:</b> Sound from external equipment connected to the AUDIO IN jack on the Communication Terminal.</p> <p><b>MIC (EXT)+AUX:</b> Mixed sounds from an external microphone connected to the Communication Terminal and from external equipment.</p> <p><b>MIC (DSB)+AUX:</b> Mixed sounds from an external microphone connected to the optional PCSA-DSB1S Data Solution Box and from external equipment.</p> <p><b>MIC (AUX)+AUX:</b> Mixed sounds from an external microphone connected to the AUX IN jack on the optional PCSA-DSB1S Data Solution Box and from external equipment.</p> <p><b>CTE (LINE):</b> Sound from the CTE-600 Communication Transducer connected to the AUDIO IN jack on the Communication Terminal.</p> <p><b>CTE (DSB):</b> Sound from the CTE-600 Communication Transducer connected to the AUX IN jack on the optional PCSA-DSB1S Data Solution Box.</p>



### 9 Dial button

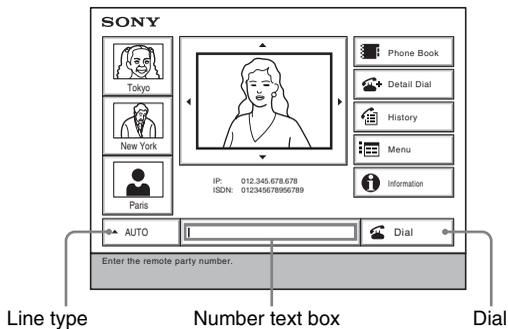
Select this button by pressing the V, v, B or b button, and then the PUSH ENTER button on the Remote Commander. This starts calling the remote party whose dial number is entered in the number input box.

### 10 Number input box

To call a remote party not registered in the Phone Book, select this box by pressing the ↑, ↓, ← or → button on the Remote Commander, and then enter the IP address or the ISDN line number.

## Calling a Remote Party

### To call a remote party by entering their number directly



- 1 Use the ↑, ↓, ← or → button on the Remote Commander to select “Line I/F” from the launcher menu, then press the PUSH ENTER button. Or press the CONNECT/DISCONNECT (📞 / 📞) button on the Remote Commander.
- 2 Use the ↑ or ↓ button on the Remote Commander to select the type of line to be used, then press the PUSH ENTER button.  
**AUTO:** A line for connecting is automatically selected, based on the number entered in the number text box.  
**IP:** Connects to a videoconferencing system on the remote site via a LAN.  
**ISDN:** Connects to a videoconferencing system on the remote site via an ISDN line.  
**TEL:** Connects to a phone on the remote site via an ISDN line for a voice meeting.
- 3 Press the ↑, ↓, ← or → button of the Remote Commander to select the number input field, and then the PUSH ENTER button.
- 4 Enter the remote party's IP address or line number.

- 5** Press the **↑**, **↓**, **←** or **→** button to select “Dial”, and then press the PUSH ENTER button of the Remote Commander. Or press the CONNECT/ DISCONNECT (  /  ) button on the Remote Commander.
- The system begins dialing the IP address ISDN telephone number entered in step 4. “Dialing” appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks.
- When the system connects to the remote system, the message “Meeting starts!” appears on the screen, and the ON LINE indicator stops blinking and lights in blue.

**Note**

When “More Options Enable” in the Dial Setup menu is set to “On”, a dialog box appears after step 5.

**More Options Enable:** The Detail Dial menu is displayed.

**Dial:** Call the remote party.

**Cancel:** Cancel a call.

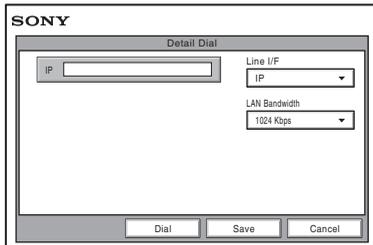
*For details about the Detail Dial menu, See “To call a remote party not registered in the Phone Book” on this page.*

- 6** Press the **↑**, **↓**, **←** or **→** button to select “Dial”, and then press the PUSH ENTER button of the Remote Commander.

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## To call a remote party not registered in the Phone Book

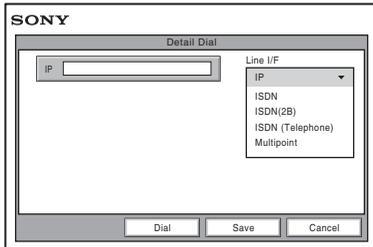
- 1** Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Detail Dial”, then press the PUSH ENTER button, or press the CONNECT/ DISCONNECT (  /  ) button on the Remote Commander.
- The Detail Dial menu appears on the screen.



**Note**

Pressing the number buttons on the Remote Commander opens the Detail Dial menu, allowing direct entry of the IP address or the ISDN telephone number with the number buttons.

- 2** Use the **↑**, **↓**, **←** or **→** button to select “Line I/F”, then press the PUSH ENTER button. The submenu appears. Press the **↑** or **↓** button to select the line type to be used to connect to the remote party, then press the PUSH ENTER button.



**IP:** Connects to the videoconferencing system of a remote party via a LAN.

**ISDN:** Connects to the videoconferencing system of a remote party via an ISDN.

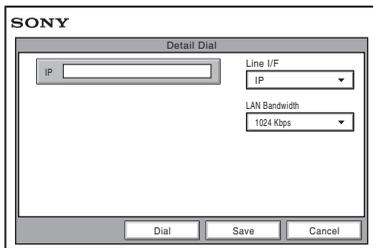
**ISDN (2B):** Connects to the H.221-format videoconferencing system via 2B channels of the ISDN connection.

**ISDN (Telephone):** Connects to the phone of a remote party to conduct a voice meeting via the ISDN connection.

**Multipoint:** Connects to the videoconferencing system of a remote party via a LAN and ISDN.

### 3 Configure the LAN, or ISDN line.

#### When using the LAN



#### ① Enter the IP address of a remote party to connect in the IP text box.

Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select the IP text box, then press the PUSH ENTER button. Then enter the IP address with the number buttons on the Remote Commander. Enter the host name and domain name when using the DNS server in the IP text box (ex. host.domain). When using the gatekeeper, enter the user name and user number registered in the LAN Setup menu (page 60).

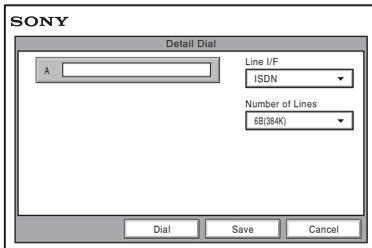
#### Notes

- You can enter a dot (.) with the **▶** or **#** button on the Remote Commander.
- To correct the entered number, press the PinP (BACK SPACE) button on the Remote Commander. The last entered number is deleted.
- To delete the entered IP address, press the DISPLAY (CLEAR) button on the Remote Commander.

② Select the LAN bandwidth.

Use the **▲**, **▼**, **◀** or **▶** button to select “LAN Bandwidth”, then press the PUSH ENTER button. Press the **▲** or **▼** button to select the bandwidth from the displayed submenu, then press the PUSH ENTER button.

### When using the ISDN



- ① Enter the telephone number of a remote party to connect to in the A text box. Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select the A text box, then press the PUSH ENTER button. Then enter the telephone number with the number buttons on the Remote Commander.

#### Notes

- Do not enter the prefix number in the telephone number text box, when the prefix setting is on.
- For details on prefix settings, see “Dial Setup Menu” on page 44.
- Even when you connect multiple ISDN lines (2B or more number of lines), entering one telephone number of the remote party enables you to connect all the lines used automatically.
- When you select ISDN (2B (128K)), the A1 and A2 text boxes appear. You can enter a separate ISDN line number in each text box. When you enter the number in the A2 text box, pressing the PUSH ENTER button on the Remote Commander enables copy of the content of the A1 text box to A2.
- To correct the entered number, press the PinP (BACK SPACE) button on the Remote Commander. The last entered number is deleted.
- To delete the entered ISDN telephone number, press the DISPLAY (CLEAR) button on the Remote Commander.

- ② Select the number of channels connected when setting up a call. Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select “Number of Lines”, then press the PUSH ENTER button. Press the **▲** or **▼** button to select the number of channels to be used when calling a remote party from the displayed submenu, then press the PUSH ENTER button.

**Note****To connect to the remote party by entering all the telephone numbers for the ISDN lines used**

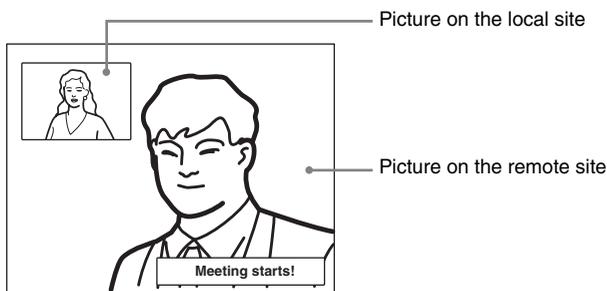
If the videoconferencing system of the remote party is not equipped with the bonding function, entering one remote party's telephone number does not allow automatic connection of multiple ISDN lines used to connect to the remote party. To connect to the remote party by entering all the telephone numbers, register the remote party's telephone numbers for the ISDN lines to be used referring to "Registering a Remote Party – Phone Book" in chapter 2 (page 68), then connect to the remote party according to the procedure described in "To call a remote party registered in the Phone Book" (page 84).

- 4 Use the **↑**, **↓**, **←** or **→** button to select "Dial" in the lower part of the menu, then press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

The system begins dialing the IP address or ISDN telephone number entered in step 3. "Dialing" appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks.

When the system connects to the remote system, the message "Meeting starts!" appears on the screen, and the ON LINE indicator stops blinking and lights in blue.

Now you can start a videoconference.

**To cancel dialing before connecting**

Press the **↑**, **↓**, **←** or **→** button to select "Cancel", then press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button.

**To save the entered IP address or ISDN line number in the Phone Book**

Select "Save" with the **↑**, **↓**, **←** or **→** button, then press the PUSH ENTER button on the Remote Commander. The address or number you entered is saved in the Phone Book and the List Edit menu is displayed.

*For details on the List Edit menu, see "Registering a Remote Party – Phone Book" on page 68.*

## Redial function

Once you have input the IP address or ISDN line number using the Detail Dial menu, it will be entered in the text box of the Detail Dial menu the next time you open the menu.

### Note

The redial function is not available:

- Once you have turned off the power of the system or set it to standby mode.
- When you cancel dialing the entered IP address or ISDN telephone number.
- When you open the Detail Dial menu by pressing the number buttons on the Remote Commander.

---

## To call a remote party with the Direct Phone Book button in launcher menu

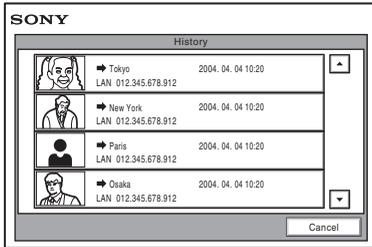
- 1** Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Line I/ F” from the launcher menu, then press the PUSH ENTER button. Or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.
- 2** Use the **↑** or **↓** button on the Remote Commander to select the type of line to be used, then press the PUSH ENTER button.  
**AUTO:** A line for connecting is automatically selected, based on the number entered in the number text box.  
**IP:** Connects to a videoconferencing system on the remote site via a LAN.  
**ISDN:** Connects to a videoconferencing system on the remote site via an ISDN line.  
**TEL:** Connects to a phone on the remote site via an ISDN line for a voice meeting.
- 3** Press the **↑**, **↓**, **←** or **→** button to select the Direct Phone Book of the remote party that you want to call, and then the PUSH ENTER button of the Remote Commander.  
“Dial” appears.  
If “More Options Enable” in the Dial Setup menu is set to “On”, you can select the “Details” button. When you do, the Detail Dial menu appears.  
*For details about the Detail Dial menu, see “To call a remote party not registered in the Phone Book” on page 79.*
- 4** Press the **↑**, **↓**, **←** or **→** button to select “Dial”, and then press the PUSH ENTER button of the Remote Commander.



---

## To call a remote party by selecting them in the history list

- 1 Press the **↑**, **↓**, **←** or **→** button to select “History”, and then the PUSH ENTER button of the Remote Commander.  
The History menu appears.



- 2 Press the **↑** or **↓** button to select the desired remote party, and then a submenu appears.
- 3 Press the **↑**, **↓**, **←** or **→** button to select “Dial”, and then press the PUSH ENTER button of the Remote Commander.

---

## To set up more detailed options

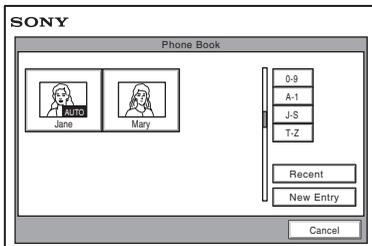
When “More Options Enable” is set to “On” in the Dial Setup menu, a dialog box is displayed.

Select the More Options button with the **↑**, **↓**, **←** or **→** button on the Remote Commander and press the PUSH ENTER button to open the Detail Dial menu. You can change the settings of the desired items.

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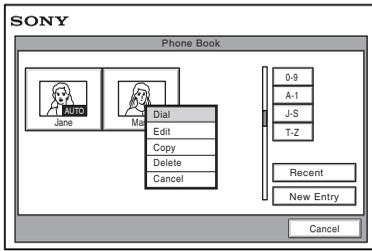
## To call a remote party registered in the Phone Book

- 1 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Phone Book” in the launcher menu, then press the PUSH ENTER button.  
The Phone Book appears on the monitor screen.



- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select a remote party from the Phone Book, then press the PUSH ENTER button.

The submenu appears.



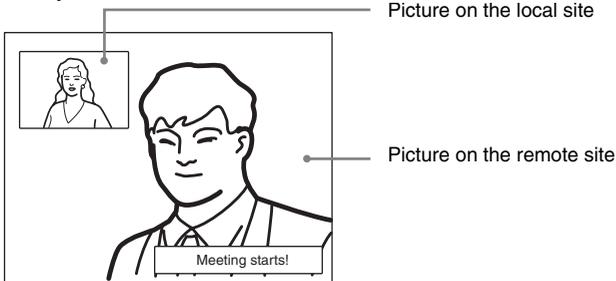
*If the desired remote party does not appear, see “To search for a remote party in the Phone Book” on page 86.*

- 3 Use the **↑** or **↓** button on the Remote Commander to select “Dial”, then press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

The system begins dialing the party selected in step 2. “Dialing” appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks.

When the system connects to the system on the remote site, the message “Meeting starts!” appears on the screen, and the ON LINE indicator stops blinking and lights in blue.

Now you can start the videoconference.



### To cancel dialing before connecting

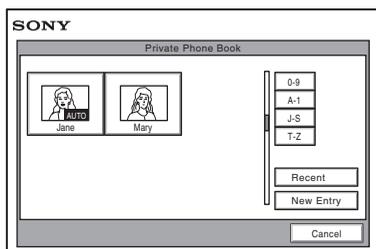
Press the **↑**, **↓**, **←** or **→** button to select “Cancel”, then press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

---

## To call a remote party registered in the Private Phone Book

- 1 Insert a “Memory Stick” in which the Private Phone Book is registered into the Memory Stick slot on the Communication Terminal.

The Phone Book menu changes to the Private Phone Book menu.



- Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select a remote party you want to call from the Private Phone Book, then press the PUSH ENTER button.
- Select “Dial” from the submenu and press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

The system dials the selected remote party.

#### Note

If the auto dialing feature of the Private Phone Book is activated, the system begins dialing when the “Memory Stick” is inserted.

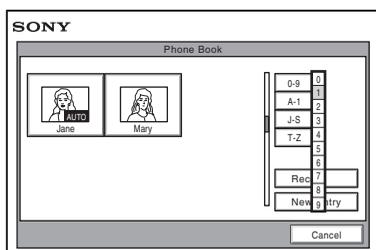
---

### To search for a remote party in the Phone Book

The Phone Book displays the list of the six parties at a time.

When you select “Recent”, the Phone Book lists the six names you have most recently dialed.

Selecting the “0-9”, “A-I”, “J-S” or “T-Z” tab opens the submenu. When you select the desired number or letter from the corresponding submenu, the Phone Book lists the six party names which start with the selected number or letter.



#### Note

You can also search for remote parties by pressing the number buttons on the Remote Commander instead of the “0-9” tab on the Phone Book. Pressing the number button lists the six party names which start with the alphabetical letter on the number button of the Remote Commander.

# Receiving a Call from a Remote Party

Operations for answering a call differ depending on the setting of the answer mode.

## Auto answer mode

The system automatically receives a call from a remote party and you can start conferencing. Although no operation is necessary to start, the picture on the local site will be displayed on the remote site screen even if you are not ready to begin.

## Manual answer mode

When there is an incoming call, the Communication Terminal rings. You need to connect the call manually before starting the conference.

You can start it whenever you are ready.

### Notes

- You cannot answer the call unless the power switch on the Communication Terminal is set to on (I).
- Make sure that the TV monitor is turned on. If you insert the IR repeater under the remote sensor on the Sony TV, set the TV to standby mode.

*For setting of the answer mode, see “Auto Answer” in the Answer Setup menu on page 46.*

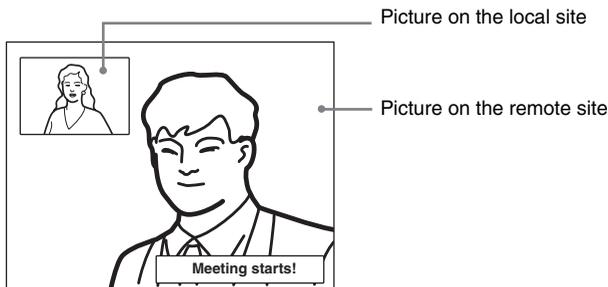
## Answering a Call from a Remote Party

### To answer a call in auto answer mode

When you receive a call, the Communication Terminal rings and the message “Incoming Call” appears on the monitor screen. The system is automatically connected and the picture of the remote party is displayed on the local monitor screen and the sound is heard. The picture and sound on the local site will be enabled on the remote site at the same time.

The message “Meeting starts!” appears on the monitor screen.

You are now ready to start a conference.



**Note**

See pages 90 to 104 to adjust the sound and picture during the conference.

---

**To receive a call in manual answer mode**

When you receive a call, the Communication Terminal rings and the message “Incoming call. Answer?” appears on the monitor screen.

Press ◀ or ▶ to select “OK”, then press the PUSH ENTER button. The system is then connected. Once the connection is made, the picture of the remote party is displayed on the local monitor screen and the sound is heard. The picture and sound on the local site will be enabled on the remote site at the same time.

The message “Meeting starts!” appears on the monitor screen.

You are now ready to start a conference.

**Note**

See pages 90 to 104 to adjust the sound and picture during the conference.

**When you do not want to answer the call**

Press ◀ or ▶ to select “Cancel”, then press the PUSH ENTER button. Ringing stops.

---

**When the system fails to make an ISDN connection**

If the system fails to connect to the remote party, the message “Cannot complete connection (an ISDN cause code and a message are displayed here)” appears on the monitor screen.

*For details on ISDN cause codes and messages, see “On-screen Messages” on page 200.*

---

**When there is an incoming call during communication over a different line interface**

If you receive a call via an ISDN when you are in communication via a LAN (or vice versa), the system becomes busy.

---

**To display the elapsed communication time**

You can display the elapsed communication time on the monitor screen if “Time Display” in the General Setup menu is set to “On”.

To turn the indicator off, set “Time Display” in the General Setup menu to “Off”. You can also turn off the indicator during communication with a remote party by turning it off in the communication submenu.

*For “Time Display” setting, see “General Setup Menu” on page 53.*

## Ending the Conference

- 1 Press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.  
The message “Disconnect?” appears on the monitor screen.
- 2 Press the ◀ or ▶ button on the Remote Commander to select “OK”, then press the PUSH ENTER button, or press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander again.  
The system is disconnected.

### Note

The power of the Communication Terminal remains on even if the system is disconnected.

### To cancel disconnection of the system

Select “Cancel” with the ◀ or ▶ button, then press the PUSH ENTER button.

---

### To register the connected remote party in the Phone Book

You can easily register the remote party who has just disconnected. If you set “Last Number Registration” in the General Setup menu to “On”, the message “Register this participant in the list?” appears after a conference with an unregistered remote party is finished. When you select “OK”, the Edit List menu appears.

### Note

If the “Last Number Registration” is set to “Off”, the message does not appear.

*For “Last Number Registration” setting, see “Last Number Registration” on page 54.*

# Adjusting the Sound

## Adjusting the Volume

You can adjust the volume of the sound to be received from a remote party. Press the **VOLUME +** button on the Remote Commander to increase the volume, **VOLUME –** button to decrease it. The volume level indicator appears on the monitor screen. The indicator will automatically disappear if you do not operate the buttons for a certain time.



### Notes

- You need to set the volume of the TV monitor to an appropriate level first.
- If feedback caused by increasing the volume occurs, decrease the volume.

## Turning Off the Sound Momentarily – Muting Function

You can momentarily turn off the sound to be sent to the remote party. Press the **MIC ON/OFF** button on the Remote Commander. The sound of the local party is not heard by the remote party. The “**MIC OFF**” indicator appears on the monitor screen.



### To restore the sound

Press the **MIC ON/OFF** button again. The “**MIC OFF**” indicator disappears and the sound is heard by the remote party.

## Turning Off the Sound On Answering – Mic on Answer Function

You can turn off the sound to be sent to a remote party when you have answered a call from the remote party.

If you set “Mic on Answer” to “Off” in the Answer Setup menu, only the picture on the local party will be sent to the remote party when answering a call. The “MIC OFF” indicator appears on the monitor screen.

### To send the sound to the remote party

Press the MIC ON/OFF button on the Remote Commander.

## Synchronizing Audio and Video – Lip Sync Function

During the conference a time lag may occur between the sound and picture to be sent to the remote party.

When you set “Lip Sync” to “On” in the Audio Setup menu, the system adjusts to synchronize audio and video. However, this may delay transmission of audio synchronized with video.

*For the Lip Sync setting, see “Audio Setup Menu” on page 50.*

### Note

To enable the Lip Sync function of the remote party, you have to ask them to do so.

## Reducing Echo – Echo Canceler

The Communication Terminal is equipped with the Echo Canceler, allowing the echo that occurs during audio transmission to be reduced.

Setting “Echo Canceler” to “Internal” in the Audio Setup menu activates the built-in echo canceler. If you set it to “External”, you can activate the echo canceler of the equipment connected to the system.

*For the “Echo Canceler” setting, see “Audio Setup Menu” on page 50.*

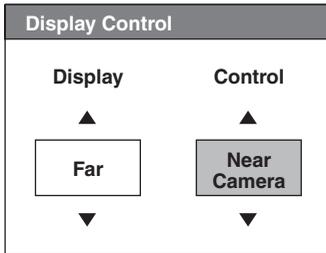
# Adjusting the Camera

You can adjust the image shot by the local camera that is sent to the remote party to obtain the desired angle and size. During communication you can also control the camera on the remote site to adjust the image shot by the remote camera.

## Selecting the Camera to be Controlled

Before adjustment, choose whether you control the local or remote camera.

- 1 Press the FAR/NEAR button on the Remote Commander.  
The Display Control menu appears.
- 2 Press the ◀ or ▶ button on the Remote Commander to select “Control”, then switch between “Far” and “Near” with the ▲ or ▼ button.



- 3 Press the PUSH ENTER button on the Remote Commander.  
When “Far” is selected (the remote camera is selected), the FAR indicator is displayed.  
When “Near” is selected (the local camera is selected), the FAR indicator does not appear.

### Notes

- To control the remote camera, set “Far End Camera Control” to “On” in the Communication Setup menu. If this setting is not configured properly, you will not be able to control the remote camera.
- You cannot control the remote camera during a session if the remote control format of the remote camera is not H.281. If you cannot control the remote camera, ask the remote party about the remote control format of his camera.
- If the local and remote parties try to control the same camera at the same time, the camera may not operate correctly.

## Adjusting the Camera Angle and Zoom

Determine the angle of view and the size of the picture to be displayed on the monitor screen by adjusting the angle and zoom.

You can make adjustments in the monitor screen during communication and in the launcher menu when not in communication. You can also make adjustments using the Camera menu.

---

### To make adjustments during communication

- 1** Select the camera you want to adjust.  
Press the FAR/NEAR button on the Remote Commander to open the Display Control menu, then select “Far” or “Near” under “Control”.
- 2** Press the **↑**, **↓**, **←** or **→** button to adjust the camera angle.  
The picture whose camera angle is adjusted is displayed in the small window or in full screen.



- 3** Use the ZOOM button to zoom in or out.  
Press the ZOOM T (Telephoto) button to zoom in (to enlarge image), and the ZOOM W (Wide angle) button to zoom out (to obtain wider range of image).

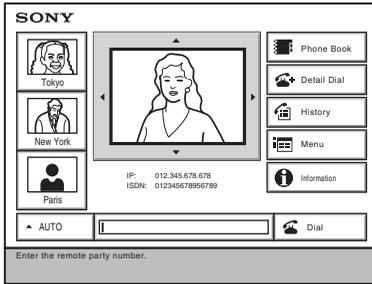
---

### To make adjustments using the launcher menu while not in communication

You can adjust the camera angle and zoom of the picture on the local site only.

- 1** Use the **↑**, **↓**, **←** or **→** button to select the screen (screen frame becomes yellow), then press the PUSH ENTER button.

The color of the screen frame changes, then you can adjust the camera angle and zoom.

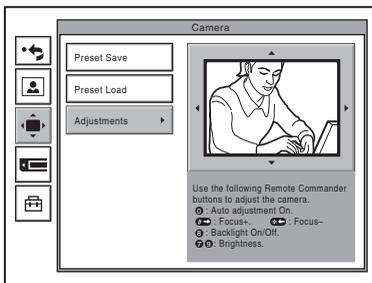


- 2** Press the **↑**, **↓**, **←** or **→** button to adjust the camera angle so that the desired angle of view is obtained.
- 3** Use the ZOOM button to zoom in or out.  
Press the ZOOM T button to zoom in (to enlarge image), and the ZOOM W button to zoom out (to obtain wider range of image).
- 4** Press the PUSH ENTER button.

---

## To make adjustments using the Camera menu

- 1** Press the MENU button on the Remote Commander to display the Setup menu, then press the **↑** or **↓** button to select **📷** (camera) icon.  
The Camera menu appears.
- 2** Use the **↑**, **↓**, **←** or **→** button to select “Adjustments”, then press the PUSH ENTER button.  
The color of the screen frame changes, then you can adjust the camera angle and zoom.



- 3** While in communication, press the FAR/NEAR button on the Remote Commander to select the camera to be adjusted.  
When the remote camera is selected, the FAR indicator is displayed.

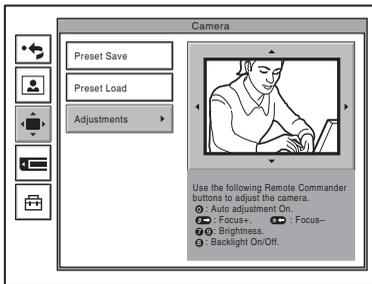
- 4 Press the **↑**, **↓**, **←** or **→** button to adjust the camera angle so that the desired angle of view is obtained.
- 5 Use the **ZOOM** button to zoom in or out.  
Press the **ZOOM T** button to zoom in (to enlarge image), and the **ZOOM W** button to zoom out (to obtain wider range of image).
- 6 Press the **PUSH ENTER** button.

## Adjusting the Focus and Brightness

Normally, the focus and brightness are automatically adjusted to obtain optimum levels. You can also adjust them manually.  
It is recommended that the focus and brightness be adjusted automatically.

### To set the system to camera adjustment mode

- 1 Press the **MENU** button on the Remote Commander to display the Setup menu, then press the **↑** or **↓** button to select the  (camera) icon.  
The Camera menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Adjustments”, then press the **PUSH ENTER** button.  
The color of the screen frame changes, then you can adjust the camera angle and zoom.  
The guidance for operations will be displayed under the screen.



- 3 While in communication, press the **FAR/NEAR** button on the Remote Commander to select the camera to be adjusted.  
When the remote camera is selected, the **FAR** indicator is displayed.

#### Note

When the remote camera is selected, only manual focus adjustment is available.

### To display the picture to fill the monitor screen

To display the picture in full screen while the Camera menu is displayed, select “Adjustments”, then press the PinP button on the Remote Commander. To cancel the full screen mode, press the RETURN button or PinP button on the Remote Commander.

---

### To adjust the focus automatically

Press the number button 0 on the Remote Commander.

The “Auto Camera” indicator appears and the focus is automatically adjusted.

---

### To adjust the focus manually

Press the # ↘ button on the Remote Commander repeatedly to move the focus point further away from the camera. The “Focus Far” indicator is displayed.

Press the \* ↙ button on the Remote Commander repeatedly to move the focus point closer to the camera. The “Focus Near” indicator is displayed.

---

### To adjust the brightness

Press the number button 9 on the Remote Commander repeatedly to make the picture brighter. The “Brightness +” indicator is displayed.

Press the “7” button on the Remote Commander repeatedly to make the picture darker. The “Brightness -” indicator is displayed.

---

### To shoot the picture with backlight compensation

Use backlight compensation when shooting a subject with bright background. Each time you press the number button 8, the backlight compensation is activated or deactivated. When it is activated, the “Backlight On” indicator is displayed. When it is deactivated, the “Backlight Off” indicator is displayed.

## Presetting the Angle and Zoom Settings

Up to six settings for camera angle and zoom can be registered in the preset memory. Once you have stored the settings, you can easily recall them to move the camera.

You can preset the settings in the monitor screen while in communication, and in the launcher menu while not in communication. You can also do so using the Camera menu.

---

### To preset the setting in the monitor screen while in communication

**1** Select the camera whose camera angle and zoom setting you want to preset.

Press the FAR/NEAR button on the Remote Commander to open the Display Control menu, then select “Far” or “Near” under “Control”.

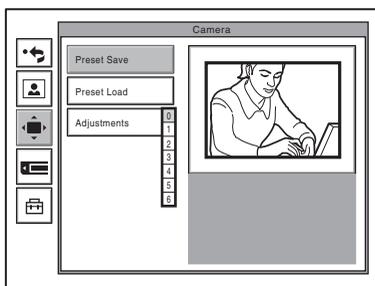
- 2** Adjust the camera angle and zoom.  
Use the **▲**, **▼**, **◀** or **▶** button to adjust the camera angle, and **ZOOM** button to adjust the zoom.
- 3** Hold down one of the number buttons 1 to 6.  
The angle and zoom setting is stored in the selected number button, and the message “Registered to Preset number 1 (to 6).” appears.

### To preset the setting in the launcher menu while not in communication

- 1** Adjust the camera angle and zoom in the launcher menu.  
Use the **▲**, **▼**, **◀** or **▶** button to select the screen and press the **PUSH ENTER** button, then press the **▲**, **▼**, **◀** or **▶** button to adjust the angle and the **ZOOM** buttons to adjust the zoom.
- 2** Hold down one of the number buttons 1 to 6 or press the **#** button and one of the 1 to 6 buttons.  
The angle and zoom setting is stored in the selected number button, and the message “Registered to Preset number 1 (to 6).” appears.

### To preset the setting using the Camera menu

- 1** Press the **MENU** button on the Remote Commander to display the Setup menu, then press the **▲** or **▼** button to select **◀▶** (camera) icon.  
The Camera menu appears.
- 2** Use the **▲**, **▼**, **◀** or **▶** button on the Remote Commander to select “Preset Save”, then press the **PUSH ENTER** button.
- 3** Select the preset number (1 to 6) with the **▲** or **▼** button, then press the **PUSH ENTER** button.  
The color of the screen frame changes, then you can adjust the camera angle and zoom.



- 4** While in communication, select the camera to be adjusted with the **FAR/NEAR** button on the Remote Commander.  
The **FAR** indicator is displayed on the monitor screen when the remote camera is selected.

- 5** Adjust the angle and zoom.  
Use the **↑**, **↓**, **←** or **→** button to adjust the camera angle, and **ZOOM** button to adjust the zoom.
- 6** Press the **PUSH ENTER** button.  
The setting is registered in the selected preset number.

## Recalling the Preset Angle and Zoom Setting

You can move the camera to the preset position by recalling the preset camera angle and zoom with the monitor screen displayed while in communication. You can do the same with the launcher menu displayed while not in communication. Using the Camera menu also enables movement of the camera to the preset position.

---

### To recall the preset setting in the monitor screen while in communication

- 1** Select the camera which you want to move to the preset position.  
Press the **FAR/NEAR** button on the Remote Commander to open the Display Control menu, then select “Far” or “Near” under “Control”.
- 2** Press one of the number buttons 1 to 6 on the Remote Commander.  
The setting of the selected preset number is recalled, and the camera moves to the preset position. The message “Preset 1 (to 6) selected” appears.

---

### To recall the preset setting in the launcher menu while not in communication

You can move the local camera to the preset position.

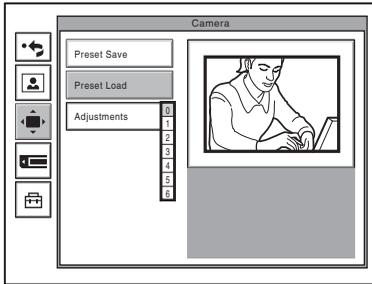
- 1** Select the screen in the launcher menu, then press the **PUSH ENTER** button.
- 2** Press one of the number buttons 1 to 6 on the Remote Commander.  
The setting of the selected preset number is recalled, and the camera moves to the preset position. The message “Preset 1 (to 6) selected” appears.

---

### To recall the preset setting in the Camera menu

- 1** Display the Camera menu.
- 2** Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Preset Load”, then press the **PUSH ENTER** button.

- 3** Press the **▲** or **▼** button to select the preset number (1-6) you want to recall, then press the **PUSH ENTER** button.



The setting of the preset number is recalled and the camera moves to the position of that setting.

### On backup

The built-in lithium battery enables retention of the memories such as preset camera adjustments even if the Communication Terminal is turned off.

#### Notes

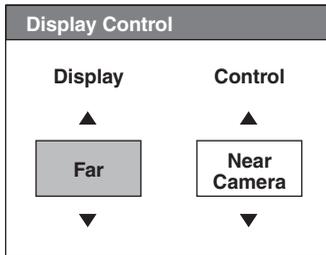
- The built-in lithium battery is kept charged as long as the system is operated. If the system is not used for a long time, the battery is gradually discharged. It will be completely discharged when you do not use the system for 12 weeks. To retain the system's memory, recharge the battery.
- To recharge the battery, connect the camera to the Communication Terminal and leave both units with the power on for about 48 hours.

# Selecting the Input Picture and Sound

This section describes how to switch the picture displayed on the monitor screen, and how to switch the input picture and sound.

## Switching the Displayed Picture Between the Local and Remote Pictures

- 1 Press the FAR/NEAR button on the Remote Commander.  
The Display Control menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Near” or “Far” under “Display”.



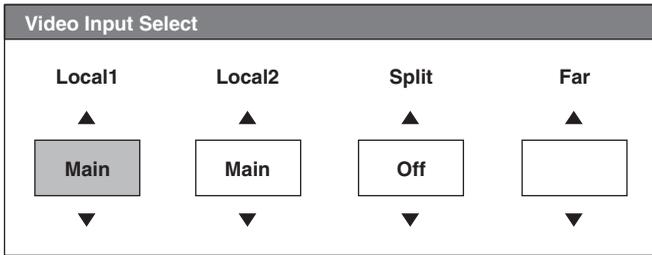
- 3 Press the PUSH ENTER button on the Remote Commander.

## Selecting the Input Picture

- 1 Press the VIDEO INPUT SELECT button on the Remote Commander.  
The Video Input Select menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the video input on the local site.

### Note

While in communication you can switch the video input of the remote system by selecting “Far” in the Video Input Select menu.



**Main:** Selects the video from the main camera.

**Sub camera:** Selects the video from the secondary camera.

**IR1:** Selects the video from the optional PCS-DS150/DS150P Document Stand.

**IR2:** Selects the video from the optional PCS-DS150/DS150P Document Stand.

**AUX 1:** Selects the video from the device connected to the MAIN (AUX IN) connector.

**AUX 2:** Selects the video from the device connected to the SUB (AUX IN) connector.

**3** Press the PUSH ENTER button on the Remote Commander.

---

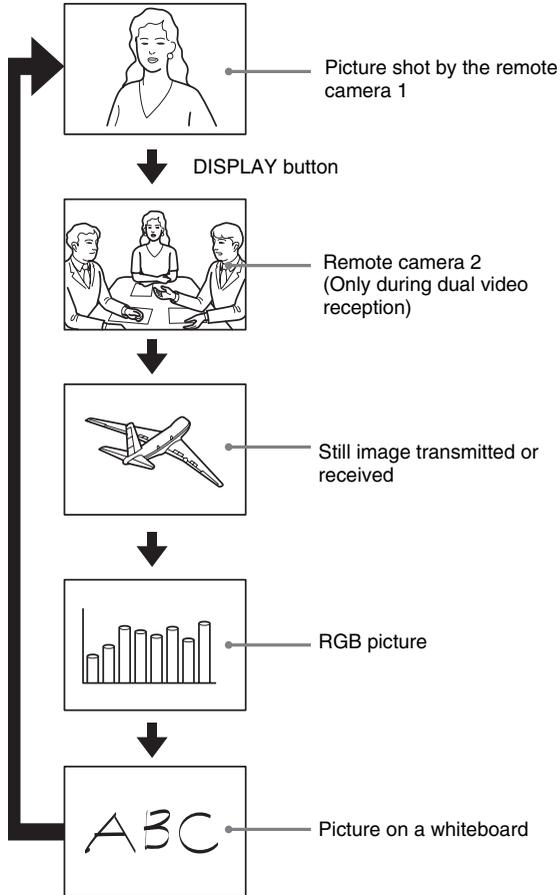
### To change the video input name displayed in the Video Input Select menu

If you label “Main Camera”, “Sub Camera”, “IR1”, “IR2”, “AUX1”, or “AUX2” in Custom Input Label in the Video Setup menu, the specified name for each camera is displayed in the Video Input Select menu in step 2 above. For example, you can label as such: Main, Document, Camera2, None.

*For details on “Custom Input Label”, see “Video Setup Menu” on page 52.*

## Switching the Picture Displayed on the TV Monitor

Each press of the DISPLAY button on the Remote Commander switches the picture displayed on the monitor screen as follows:



### Notes

- A still image is displayed only when it has been transmitted or received.
- An RGB picture is displayed only when the RGB signal is transmitted or received to/from a computer via the optional PCSA-DSB1S Data Solution Box connected to the Communication Terminal.
- A picture on a whiteboard is displayed only when notes written on a whiteboard are transmitted or received.

*For details, see “Using Audio/Video Signal from the Connected Equipment for a Conference” on page 146 and “Videoconference Using a Whiteboard page 153.*

## Switching the Sound to Be Sent to the Remote Party

You can switch the sound sent to the remote party between the sound from the microphone and that from the connected equipment. Use “Input Select” in the Audio Setup menu.

*For details on the “Input Select” setting, see page 50.*



---

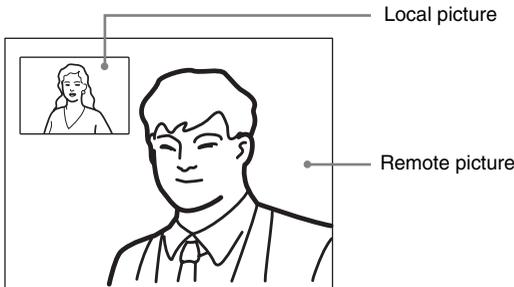
# Monitoring the Local Picture as a Window Picture – PinP Feature

You can display the picture shot by the local camera on your monitor screen as a window picture (**Picture-in-Picture**). This function enables you to check how your own party is monitored on the remote site.

---

## To display the window picture

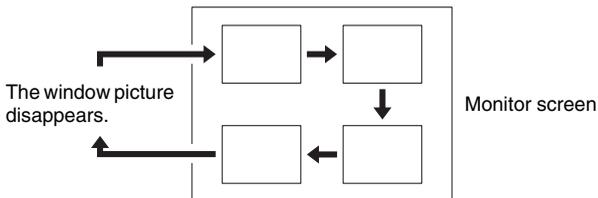
Press the PinP button on the Remote Commander.  
The local picture is displayed as a window picture.



---

## To change the location of the window picture

Each press of the PinP button changes the location of the window as follows:



### Notes

- The window picture is displayed in the same location as it was last located. The window picture does not appear if it was not previously displayed.
- The window picture is not available while not in communication with a remote party.

---

## To display the remote picture as a window picture

Press the FAR/NEAR button on the Remote Commander to open the Display Control menu and select “Near” under “Display” when the local picture is displayed as a window picture. The remote picture is displayed as a window picture with the local picture as the main picture.

---

# Conducting a Videoconference Using the Dual Video Function

The dual video function allows the simultaneous sending and receiving of two images using two cameras.

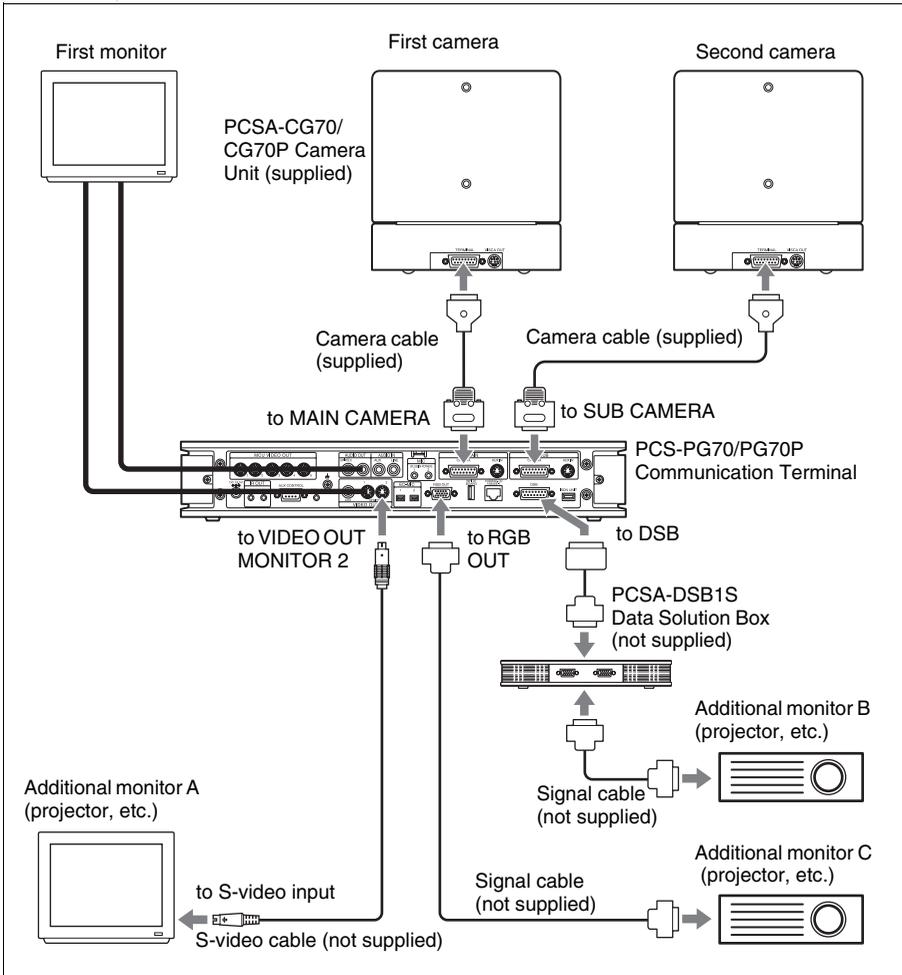
## System Configuration Using 2 Cameras and 3 Monitors

This section describes how to configure a system using 2 cameras and 3 monitors.

### Notes

- Be sure to turn off all the equipment before making any connections.
- Do not connect/disconnect the camera cable with the power on. Doing so may damage the Camera Unit or Communication Terminal.





- When you want to conduct a videoconference using the dual video function, the H.239 setting of the Communication Setup menu of both local and remote terminals must be “On”.
- Up to four monitors can be connected to the system. However, only three monitors, including the first monitor, can be used at one time.

For details, see “Using Multiple Monitors” on page 122. The dual video function can only be used in a two-point videoconference.

## Activating the Dual Video Function

You can either activate the dual video function at when starting a videoconference or during a videoconference.

### Note

If you transfer to a multipoint videoconference while the dual video function is in use, it automatically stops.

If you send images through the PCSA-DSB1S Data Solution Box while the dual video function is in use, it stops until the image transfer is complete, and then resumes.

---

### To activate dual video when starting a videoconference

Set “Dual Video” in the Video Setup menu to “On”. (See page 52.)  
Sending and receiving of dual video begins automatically when a videoconference is started.

---

### To activate dual video during a videoconference

While the videoconference is in progress, press the PUSH ENTER button on the Remote Commander to display the communication submenu, and then set “Dual Video” to “On”.

### Note

If the dual video function cannot be used, “Dual Video” does not appear on the communication submenu.

---

### To change the monitor display

To switch the display of the first monitor, press the FAR/NEAR button on the Remote Commander. To change the display on another monitor, press the DISPLAY button on the Remote Commander. Each time you press the DISPLAY button, the display changes.

For details, see “Using Multiple Monitors” on page 122.

# Chapter 4: Videoconference With Optional Equipment

This chapter describes the various videoconferences using the optional equipment in addition to the components contained in the PCS-G70/G70P Video Communication System.

*To conduct a data conference using the optional PCSA-DSBIS Data Solution Box, see chapter 5.*

*To conduct a multipoint conference, see chapter 8.*

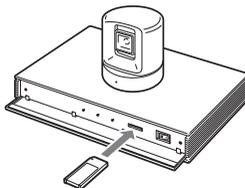
---

## Using Still Images Stored on a “Memory Stick” for a Videoconference

You can display the still images stored in the optional “Memory Stick” or transmit them to a remote party.

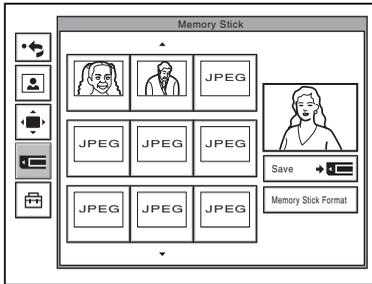
### Displaying a Still Image Stored on a “Memory Stick”

- 1 Insert the “Memory Stick” containing the still images into the Memory Stick slot on the Communication Terminal.  
Insert the “Memory Stick” in the direction of the arrow with the mark facing upward.



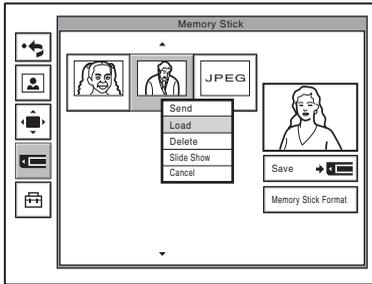
## 2 Open the Memory Stick menu.

Press the MENU button on the Remote Commander to display the Setup menu, and select  (Memory Stick) icon with the  $\uparrow$  or  $\downarrow$  button.



## 3 Use the $\uparrow$ , $\downarrow$ , $\leftarrow$ or $\rightarrow$ button on the Remote Commander to select the still image you want to display, then press the PUSH ENTER button.

The submenu appears.



## 4 Use the $\uparrow$ or $\downarrow$ button to select "Load", then press the PUSH ENTER button.

The menu disappears and the selected still image is displayed on the monitor screen.

### To clear the still image from the monitor screen

While the still image is displayed, press the PUSH ENTER button on the Remote Commander. The Memory Stick menu is restored.

---

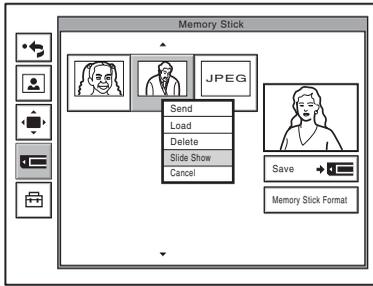
## Viewing a slide show

You can view still images stored on a "Memory Stick" slide by slide. (Slide Show)

### 1 Insert the "Memory Stick" into the Memory Stick slot, and display the Memory Stick menu.

### 2 Use the $\uparrow$ , $\downarrow$ , $\leftarrow$ or $\rightarrow$ button on the Remote Commander to select a still image from which you want to start a slide show, then press the PUSH ENTER button.

The submenu appears.



- 3 Use the **▲** or **▼** button on the Remote Commander to select “Slide Show”, then press the **PUSH ENTER** button.

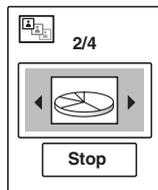
The slide show starts. During communication with a remote party, the still images are transmitted to the remote party.

The  indicator is displayed on the monitor screen during the slide show.

- 4 Press the **▶** button on the Remote Commander to advance a slide. Pressing the **◀** button goes back to the previous slide.

#### To select another still image during the slide show

Pressing the **PUSH ENTER** button during the slide show opens the submenu.



Press the **◀** or **▶** button to select the desired still image, then press the **PUSH ENTER** button. The selected image is displayed in full screen. During communication it will be transmitted to the remote party.

#### To stop the slide show

While the submenu is open, select “Stop” with the **▼** button and press the **PUSH ENTER** button.

While the submenu is not open, press the **RETURN** button on the Remote Commander. The Memory Stick menu is restored.

---

## To delete a still image

Display the Memory Stick menu, select the still image you want to delete, and press the PUSH ENTER button. Select “Delete” from the displayed submenu with the  $\uparrow$  or  $\downarrow$  button, then press the PUSH ENTER button. The selected still image is deleted from the “Memory Stick”.

---

## To remove the “Memory Stick”

Push the “Memory Stick” and release your finger. The “Memory Stick” will come out a little, and you can then remove it.

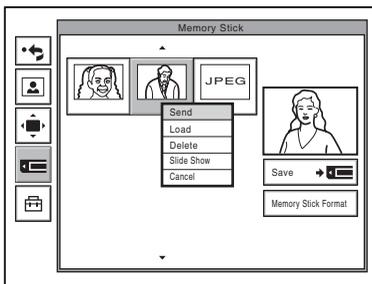
## Sending a Still Image Stored on a “Memory Stick”

While in communication, you can send still images stored on a “Memory Stick” to the remote party.

- 1 Insert a “Memory Stick” into the Memory Stick slot on the Communication Terminal, and display the Memory Stick menu.

*For how to insert a “Memory Stick” and how to display the Memory Stick menu, see “Displaying a Still Image Stored on a “Memory Stick”” on page 108.*

- 2 Use the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$  or  $\rightarrow$  button on the Remote Commander to select the still image you want to send, then press the PUSH ENTER button. The submenu appears.



- 3 Use the  $\uparrow$  or  $\downarrow$  button to select “Send”, then press the PUSH ENTER button.

The selected still image is displayed, and is sent to the remote party. The message “The still image has been sent.” appears on the monitor screen.

### When you select “Slide Show” in step 3 above

If you select “Slide Show” from the submenu and press the PUSH ENTER button, a slide show starts from the selected still image, and it will be sent to the remote party.

*For details on a slide show, see page 109.*

## Formatting a “Memory Stick”

### Notes

- “Memory Sticks” formatted on a computer are not guaranteed to work with this system. Always use “Memory Sticks” formatted with the system.
- Formatting a “Memory Stick” deletes all images, addresses and other data saved on the “Memory Stick”.

---

### To format a “Memory Stick”

Select “Memory Stick Format” in the Memory Stick menu, and the “Format a Memory Stick?” message appears. Select “OK” to format the “Memory Stick”.

---

### When an unformatted “Memory Stick” is inserted

The “Format a Memory Stick?” message appears. Select “OK” to format the “Memory Stick”. Select “Cancel” to cancel the formatting operation.

# Sending Motion Pictures as Still Images

You can send motion pictures shot by the Camera or those output from the connected external equipment as still images.

When you are sending pictures that contain lots of text, it is recommended that you send them as still images. The images become clearer than motion pictures and the texts are easy to read. When using the “Split” feature of the dual video function, you can only send still images from the main monitor.

*For details, see “Conducting a Videoconference Using the Dual Video Function” on page 105.*

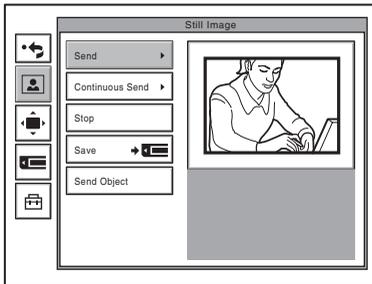
## Sending Still Images Using the Still Image Menu

While in communication with the remote party, you can send motion pictures shot by the local camera as still images. You can send one still image or still images continuously.

### 1 Open the Still Image menu.

Press the MENU button on the Remote Commander to display the Setup menu, and select the  (still image) icon with the  $\uparrow$  or  $\downarrow$  button.

### 2 Use the $\uparrow$ , $\downarrow$ , $\leftarrow$ or $\rightarrow$ button on the Remote Commander to select “Send” or “Continuous Send”, then press the PUSH ENTER button.



### 3 Adjust the camera angle and zoom and press the PUSH ENTER button, if necessary.

*For details on the adjustments of the camera angle and zoom, see “Adjusting the Camera Angle and Zoom” on page 93.*

The motion picture displayed on the local monitor screen freezes, and a still picture will be sent to the remote party. If you select “Send”, a still image is sent. When transmission is finished, the message “The still image has been sent.” appears.

When “Continuous Send” is selected, still images are sent continuously. The sending interval depends on the transmission rate and the image type.

### To stop “Continuous Send”

Press the PUSH ENTER button on the Remote Commander. Select “Stop” from the displayed submenu with the ▲ or ▼ button, then press the PUSH ENTER button.

### To cancel still image display

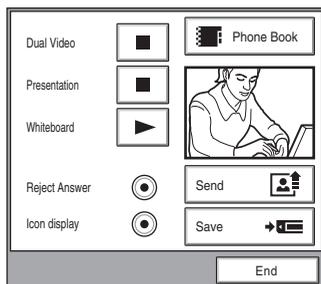
Press the PUSH ENTER button on the Remote Commander to display the submenu. Select “Clear” with the ▲ or ▼ button, then press the PUSH ENTER button.

## Sending a Still Image Using the Communication Submenu

You can easily send only one image displayed on the monitor screen as a still image during communication.

- 1 Press the PUSH ENTER button on the Remote Commander during communication.

The Communication submenu appears.



- 2 Press the ▲ or ▼ button on the Remote Commander to select “Send”, then press the PUSH ENTER button.

The motion picture displayed on the local monitor screen freezes, and a still picture is sent to the remote party. When transmission is finished, the message “The still image has been sent.” appears.

### To cancel still image display

Press the PUSH ENTER button on the Remote Commander to display the communication submenu. Select “Clear” with the ▲ or ▼ button, then press the PUSH ENTER button. When a still image is displayed on the monitor screen, the “Send” indication changes to “Clear”.

### To hide the communication submenu

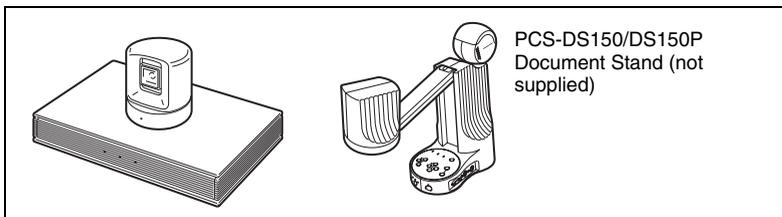
Select “End” from the menu, then press the PUSH ENTER button.

### When you are receiving a still image

You cannot send a still image to the remote party. Select “Clear”, then send the still image.

## Sending Motion Pictures Output from a Document Stand as Still Images

During communication motion pictures output from the optional PCS-DS150/DS150P Document Stand connected to the Communication Terminal can be frozen, and you can send a still image to the remote party.



### To send a still image

- 1 Shoot the image you want to send with the Document Stand.

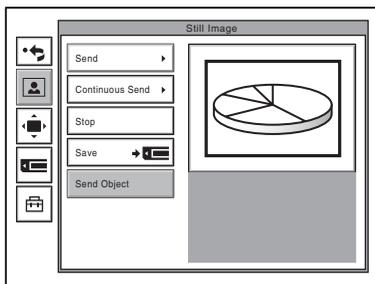
*For details how to operate the Document Stand, refer to the Operating Instructions supplied with the Document Stand.*

- 2 Open the Still Image menu.

Press the MENU button on the Remote Commander to display the Setup menu, then select the  (still image) icon with the  $\uparrow$  or  $\downarrow$  button.

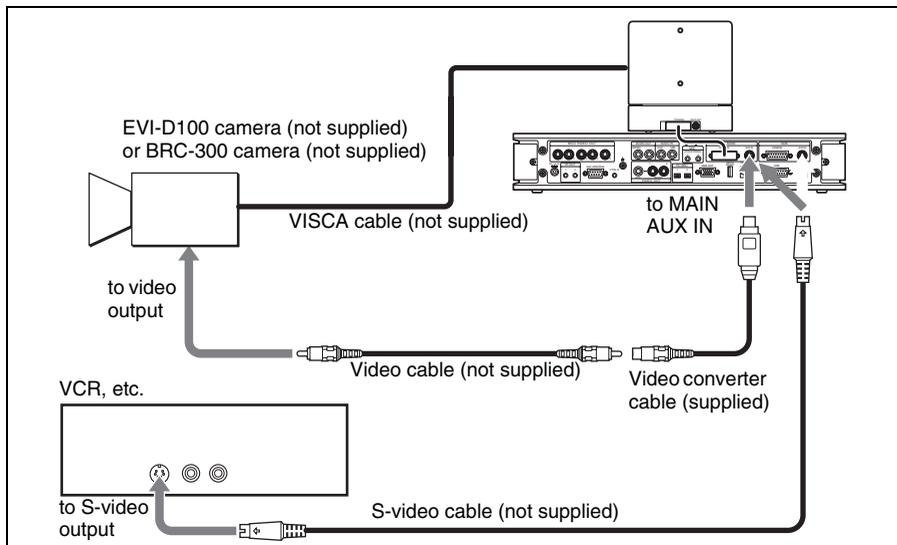
- 3 Use the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$  or  $\rightarrow$  button on the Remote Commander to select “Send Object”, then press the PUSH ENTER button.

The picture shot by the Document Stand is displayed on the monitor screen and is sent to the remote party as a still image.



## Sending Motion Pictures Input from an External Camera or Other Equipment as Still Images

During communication a motion picture output from an external camera or VCR connected to the Communication Terminal can be frozen, and then sent to the remote party.



### To send a still image

- 1 Open the Still Image menu.  
Press the MENU button on the Remote Commander to display the Setup menu, then select the  (still image) icon with the  $\uparrow$  or  $\downarrow$  button.
- 2 Display the picture you want to send on the monitor screen.  
Press the VIDEO INPUT SELECT button on the Remote Commander to display the Video Input Select menu, then select "AUX1" under "Near", and press the PUSH ENTER button.

#### Notes

- Still images can only be sent from the device connected to the MAIN AUX IN connector.
  - Selecting "IR1" or "IR2" allows you to display images input from the optional PCS-DS150/DS150P Document Stand on the monitor.
  - If you label "Main Camera", "Sub Camera", "IR1", "IR2", "AUX1", or "AUX2" in Custom Input Label in the Video Setup menu, the specified name for each camera is displayed in the Video Input Select menu.
- 3 Use the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$  or  $\rightarrow$  button on the Remote Commander to select "Send", then press the PUSH ENTER button.  
The motion picture on the monitor screen freezes, and a still picture is sent to the remote party. The still picture remains even after sending.

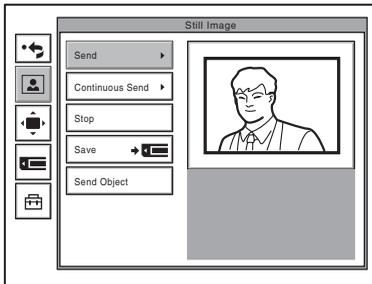
### To cancel the still image display on the answering site

Select "Clear", or switch the input picture.

# Receiving Still Images from a Remote Party

During communication, you can receive still images taken by the remote camera if the “Far End Camera Control” on page 3 of the Communication Setup menu.

- 1** Open the Still Image menu.  
Press the MENU button on the Remote Commander to display the Setup menu, then select the  (still image) icon with the  $\uparrow$  or  $\downarrow$  button.
- 2** Press the FAR/NEAR button on the Remote Commander.  
The picture shot by the remote camera and the FAR indicator appear on the monitor screen in the Still Image menu window. “Send” in the menu turns to “Receive”.
- 3** Use the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$  or  $\rightarrow$  button on the Remote Commander to select “Receive”, then press the PUSH ENTER button.



The remote picture displayed on the monitor screen is received as a still image.

## To cancel still image display

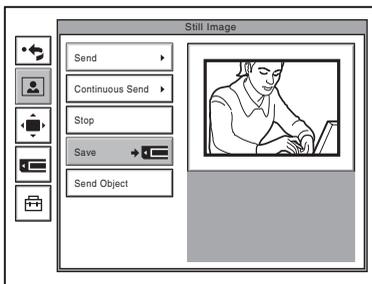
Press the PUSH ENTER button on the Remote Commander to display the submenu. Select “Clear” with the  $\uparrow$  or  $\downarrow$  button, then press the PUSH ENTER button.

# Saving Still Images to a “Memory Stick”

You can save the picture shot by the local camera or input picture from the connected equipment or the remote picture during conference on a “Memory Stick”.

## Saving Still Images Using the Still Image Menu

- 1** Open the Communication Terminal front panel, and then insert the “Memory Stick” used to save images into the Memory Stick slot.
- 2** Open the Still Image menu.  
Press the MENU button on the Remote Commander to display the Setup menu, then select the  (still image) icon with the  or  button.
- 3** Display the picture you want to save on the monitor screen.  
To switch the input on the local site, press the VIDEO INPUT SELECT button on the Remote Commander to display the Video Input Select menu, select the desired picture, then press the PUSH ENTER button.  
To save the remote picture, switch to the picture on the remote site with the FAR/NEAR button on the Remote Commander, and select the desired picture.
- 4** Use the , ,  or  button on the Remote Commander to select “Save”, then press the PUSH ENTER button.



The picture displayed on the monitor screen will be saved as a still image to the “Memory Stick”.

### Notes

- Do not remove the “Memory Stick” until the data is completely loaded. If you do, the “Memory Stick” may be damaged or the Communication Terminal may cause a malfunction.
- A still image file is saved as a new file. It will not be overwritten.

### **When the write-protect tab on the “Memory Stick” is set to “LOCK” when you selected “Save” in step 4**

The message “Memory Stick write-protected” appears and you cannot save the still image file.

### **When the memory of the “Memory Stick” is full**

The message “Memory full.” appears and you cannot save the still image file.

---

## **Image format that can be stored on a “Memory Stick”**

### **File name**

The image file is saved as “DSCXXXXX.jpg”.

### **Compression format**

The Communication Terminal compresses and records the recorded image data in the JPEG (Joint Photographic Experts Group) format. The file extension is “.jpg”.

#### **Note**

The Communication Terminal is not compatible with progressive JPEG format data.

## **Saving Still Images Using the Memory Stick Menu**

You can save still pictures using the “Memory Stick” “Save” thumbnail displayed on the Memory Stick menu.

**1** Insert the “Memory Stick” to which you are saving the images into the Memory Stick slot.

**2** Display the picture you want to save.

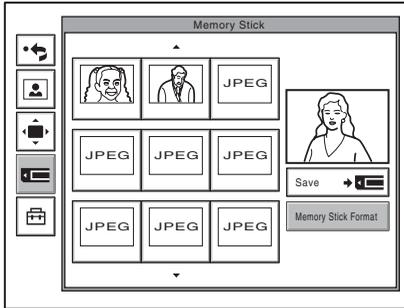
To switch the input on the local site, press the VIDEO INPUT SELECT button on the Remote Commander to display the Video Input Select menu, select the desired picture, then press the PUSH ENTER button.

To save the remote picture, switch to the picture on the remote site with the FAR/NEAR button on the Remote Commander, and select the desired picture.

**3** Open the Memory Stick menu.

Press the MENU button on the Remote Commander to display the Setup menu, then select the  (“Memory Stick”) icon with the  or  button.

- 4 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the Save button, then press the PUSH ENTER button.



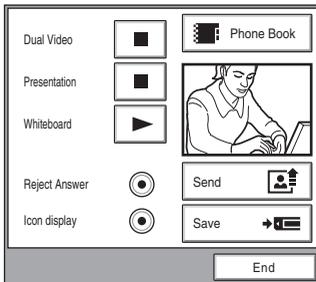
The selected picture is saved to the “Memory Stick” and a thumbnail is created.

## Saving Still Images Using the Communication Submenu

You can promptly save the picture displayed on the monitor screen during communication to the “Memory Stick” as a still image.

- 1 During communication with the remote party press the PUSH ENTER button.

The communication submenu appears.



- 2 Press the **↑** or **↓** button on the Remote Commander to select “Save”, then press the PUSH ENTER button.

The displayed picture is frozen and saved to the “Memory Stick” as a still image.

After saving, the message “Still image saved to Memory Stick.” appears.

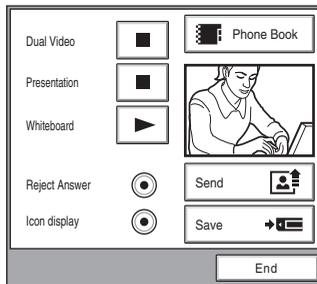
### To hide the communication submenu

Select “End” in the menu, then press the PUSH ENTER button.

# Using a Convenient Menu Available during Communication — The Communication Submenu

During communication with a remote party, pressing the PUSH ENTER button on the Remote Commander opens the communication submenu. The communication submenu allows you to perform operations often used during communication only by selecting the item in the menu.

## Communication submenu



Selecting each item with the  $\uparrow$  or  $\downarrow$  button and pressing the PUSH ENTER button enables the following operations:

**Dual Video:** Starts dual video. Only appears during a two-way videoconference.

**Presentation:** Sends the RGB picture input from the optional PCSA-DSB1S Data Solution Box to a remote party. After it does, the item changes to “Presentation  $\blacksquare$ ”. Selecting “Presentation  $\blacksquare$ ” ends the transmission of the RGB picture. Only appears when the Data Solution Box is connected to the Communication Terminal.

**Whiteboard:** Sends notes written on a whiteboard with the mimio Xi attached. After it does, the item changes to “Whiteboard  $\blacksquare$ ”. Selecting “Whiteboard  $\blacksquare$ ” ends the transmission of notes on the whiteboard. Only appears when the whiteboard with the installed mimio Xi is connected.

**Reject Answer:** Rejects incoming calls from other terminals during a multipoint videoconference.

**Icon Display:** Displays the on-screen indicators if they are not shown. While the indicators are displayed, the item changes to “Indicator  $\odot$ ”. Selecting “Indicator  $\odot$ ” hides the indicators.

**Phone Book:** Shows the Phone Book menu.

**Send:** Sends the picture displayed on the monitor as a still image to a remote party. After it does, the item changes to “Clear”. Selecting “Clear” restores the motion picture from the camera.

**Save:** Saves the picture displayed on the monitor to a “Memory Stick” as a still image.

**End:** Clears the communication submenu.

# Using Multiple Monitors

By connecting several monitors to the system, you can display different material, such as video or still images, on different monitors.

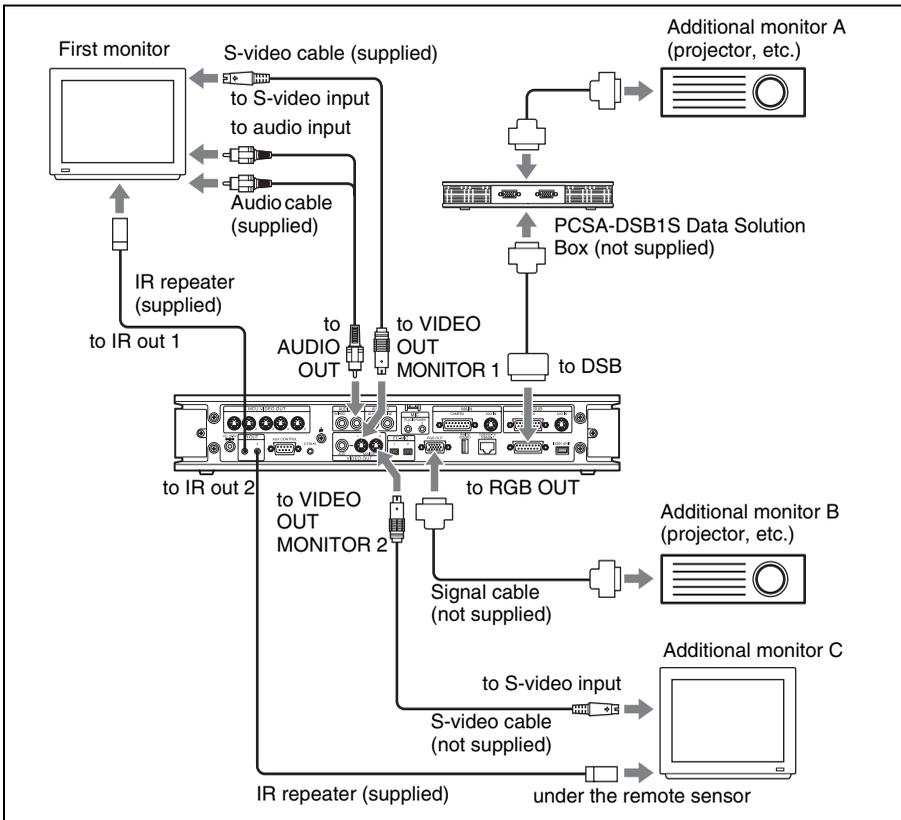
## Using Two Monitors—Dual Monitor Setup

By connecting two monitors, you can use one as a video-only display.

### To connect a second monitor

To connect a second monitor, simply connect it to the VIDEO OUT MONITOR 2 or RGB OUT connector of the Communication Terminal, or the RGB OUT connector of the Data Solution Box.

If your second monitor is a Sony monitor, connect the supplied IR repeater immediately under the monitor's remote sensor, and connect the other end of the IR repeater cable to the IR OUT 2 connector of the Communication Terminal.



---

## To change the settings

Set “Monitors” in “Monitor Out” of the Video Setup menu to “2”. Next, select the connector where the second monitor is connected. To do so, set “Monitor” in “Monitor Out” of the Video Setup menu to “SUB”. Once the settings are changed, the first monitor displays video, while the second displays still images.

*For details, see “To change the images displayed in a dual monitor setup” on page 124.*

---

## To view the picture as a window picture

When you press the PinP button of the Remote Commander during communication, the picture appears as a smaller window picture over the display of the first monitor.

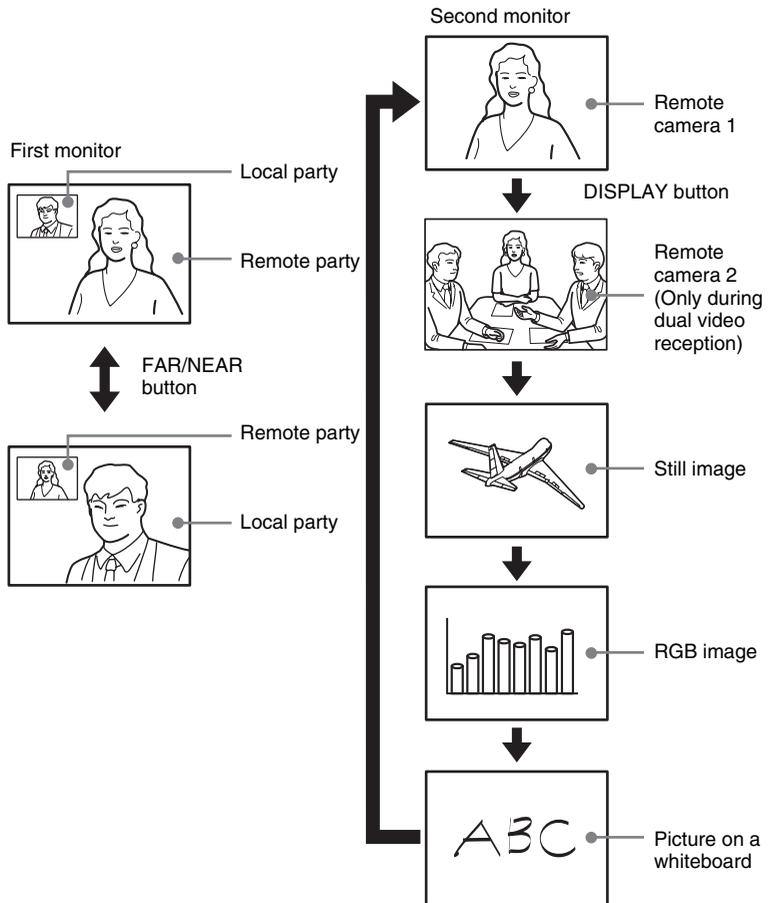
### **Note**

You cannot perform this operation on the second monitor.



## To change the images displayed in a dual monitor setup

You can display the following on the monitors during communication in a dual monitor setup.



### First monitor

You can display either local or remote camera video.

When alternating between local and remote video, press the FAR/NEAR button of the Remote Commander, and then make the appropriate selection on the display control menu that appears.

### Second monitor

You can display local camera video, received or transmitted still images, RGB images transmitted through the Data Solution Box PCSA-DSB1S, or whiteboard images.

Each time that you press the DISPLAY button of the Remote Commander, the display changes.

**Note**

If there is no RGB or still image feed, it is not possible to alternate the display as outlined above.





---

## To change the settings

Set “Monitors” in “Monitor Out” of the Video Setup menu to “3”. Next, you must select the connector where the second monitor is connected. To do so, set “Monitor” in “Monitor Out” of the Video Setup menu to “SUB”. Once the settings are changed, the first monitor displays video, while the second and third display video or still images.

*For details, see “To change the images displayed in a triple monitor setup” on this page.*

---

## To view the picture as a window picture

When you press the PinP button of the Remote Commander during communication, the picture appears as a smaller window picture over the display of the first monitor.

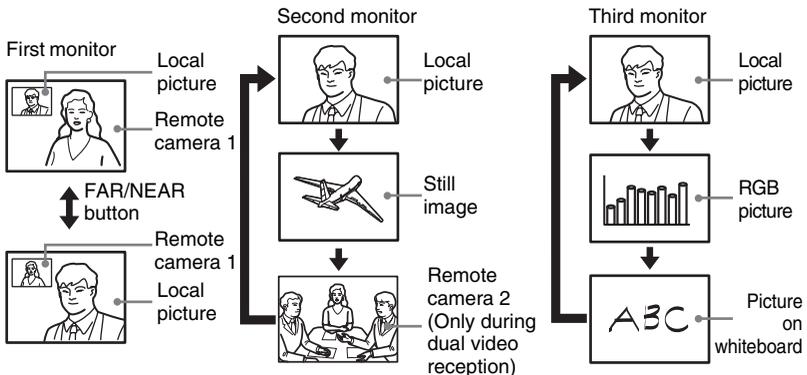
### Note

You cannot perform this operation on the second and third monitors.

---

## To change the images displayed in a triple monitor setup

You can display the following on the monitors during communication in a triple monitor setup.



In this setup, each time that you press the DISPLAY button on the Remote Commander, the entire display structure changes in sequence.

### First monitor

You can display remote camera video.

### Second monitor

You can display local camera video, received or transmitted still images, or remote camera video.

Each time that you press the DISPLAY button of the Remote Commander, the display changes.

### **Third monitor**

You can display local camera video, RGB images transmitted through the Data Solution Box PCSA-DSB1S, or whiteboard images.

#### **Note**

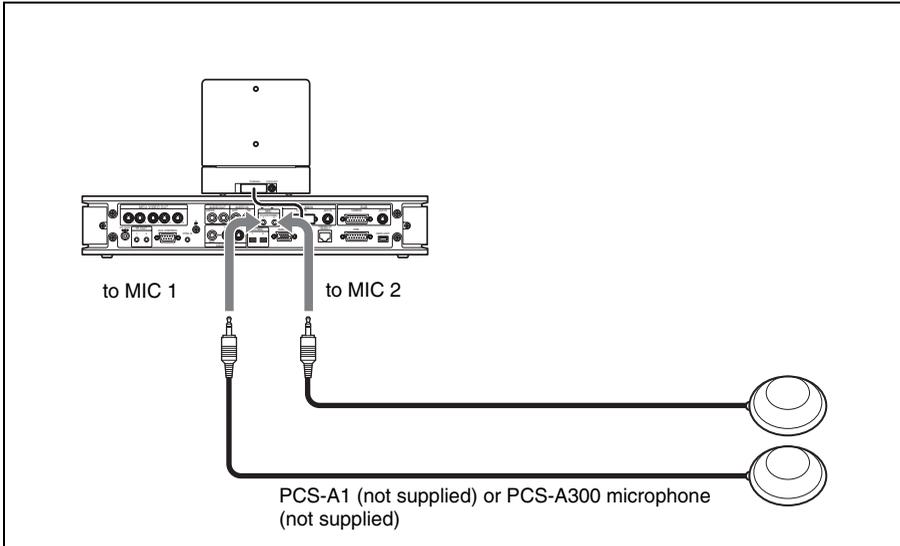
If there is no RGB or still image feed, it is not possible to alternate the display as outlined above.

# Using Multiple Microphones

You can connect several optional PCS-A1 or PCS-A300 microphones to the system, allowing more people to participate in the conference.

## To connect the optional microphones

Connect the optional microphones to the MIC 1 and MIC 2 connectors on the Communication Terminal. Power is supplied to the microphones from the terminal.



## To use the connected microphone

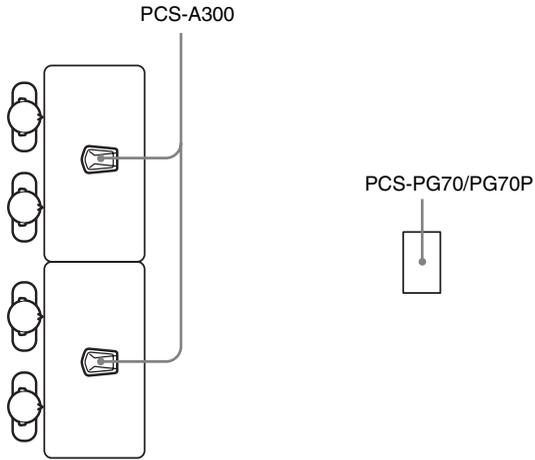
Set "Mic Select" to "MIC" on page 1 of the Audio Setup menu.  
(See page 50.)

### Notes on installation of the microphones

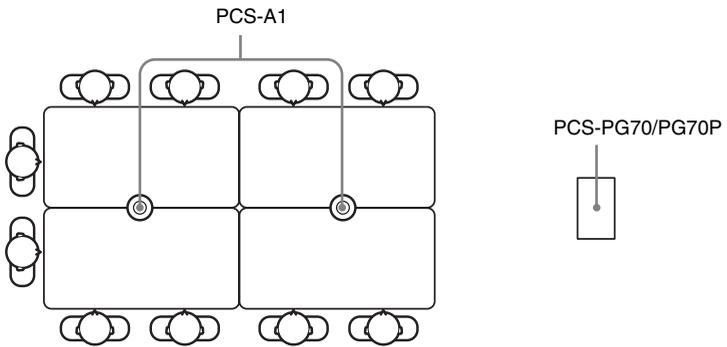
- Install microphone about 50 cm away from the participants.
- Install the speakers behind the microphones.
- Place the microphone in a quiet, echo-free location.
- Install microphones away from equipment that may cause noise.
- Avoid covering a microphone with paper, etc., or moving it. If you do either, extreme noise and echo may be heard temporarily by the remote party. In this case, wait until the echo disappears.

## Microphone layout examples

### PCS-A300 microphones



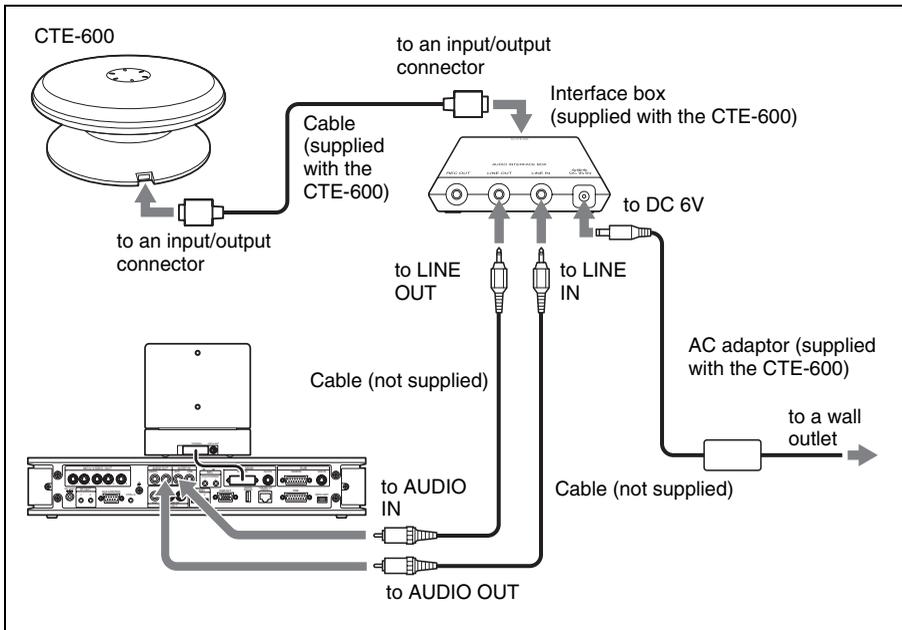
### PCS-A1 microphones



# Using the Communication Transducer (CTE)

The CTE Communication Transducer is an integrated system equipped with uni-directional microphones and omni-directional acoustic speaker. The unit is enabled to pick up clear voice with minimum background noise from all directions and to emit clear sound equally in all directions.

## To connect the CTE-600 Communication Transducer

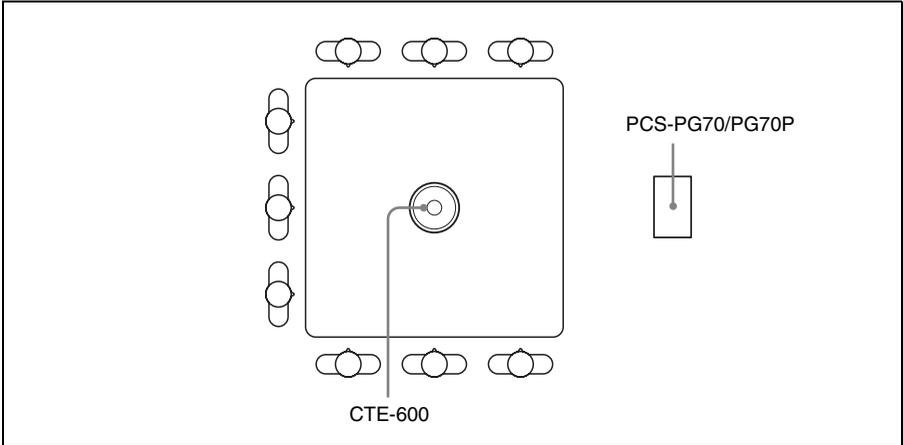


## To use the Communication Transducer (CTE)

- Set “CTE” on page 1 of the Audio Setup menu to “LINE”. (page 50)
- Set the SYSTEM SELECT switch at the bottom of the Communication Transducer to “PCS”.

*For detailed information on the Communication Transducer, refer to the Operating Instructions that come with the Communication Transducer.*

## CTE layout example



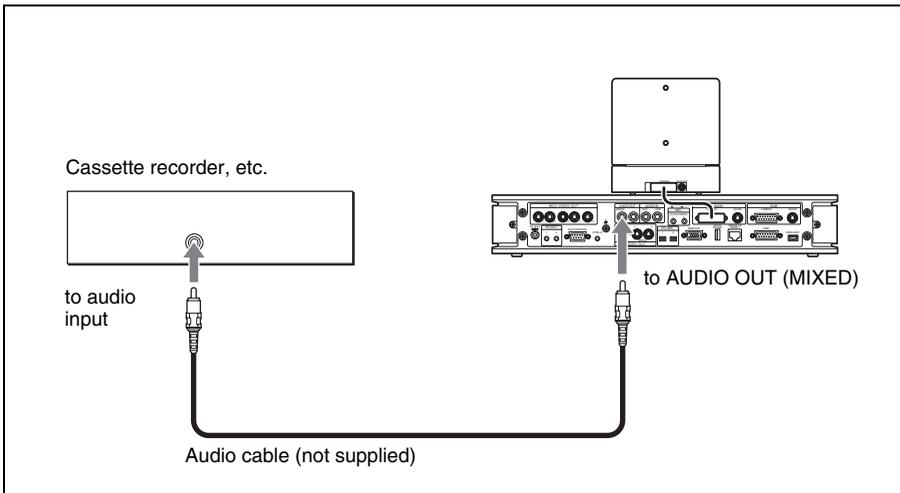
---

# Recording Audio During a Conference

You can record the voices of the participants on both the remote and local sites during a conference if you connect a cassette recorder to the AUDIO OUT (MIXED) jack on the Communication Terminal. This is convenient for taking minutes of the conference.

---

## To connect a cassette recorder



---

## When recording with a cassette recorder

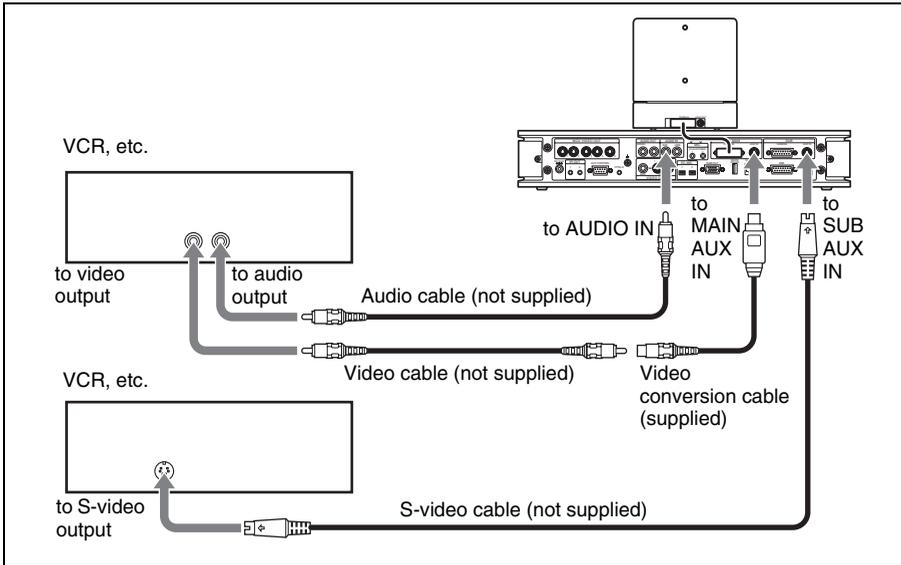
When a cassette recorder is connected to both the AUDIO IN and AUDIO OUT (MIXED) jacks, set “Recording Mute” to “On” on page 1 of the Audio Setup menu to prevent from reflecting echo on a remote party. (See page 50.)

# Sending Audio/Video from the External Equipment to a Remote Party

The Communication Terminal allows you to send the picture and sound output from the connected equipment such as a VCR to the remote party.

## To connect the video equipment for input

The Communication Terminal is equipped with two video inputs.



### Note

Be sure to connect the audio cable to either of two VCRs.

## To input audio/video from external equipment

### To input video

Open the Video Input Select menu by pressing the VIDEO INPUT SELECT button on the Remote Commander, then select the desired video input from the "Near" text box in the menu.

To input the video from the equipment connected to the MAIN AUX IN or SUB AUX IN jack, choose "AUX 1" or "AUX 2", respectively.

### **To input audio**

Set “Input Select” to “AUX” or “MIC + AUX” on page 1 of the Audio Setup menu. (See page 50.)

When set to “AUX”, the sound from the external equipment is input and the sound from a microphone is deactivated. When set to “MIC + AUX”, both sounds are input.



---

# Conducting a Conference Without the Picture – Voice Meeting

Using the PCS-G70/G70P Video Communication System, you can conduct a voice only conference via a normal phone without connecting the videoconferencing system. **(Voice Meeting)**

Basic connection procedures are the same as those for videoconferencing.

---

## Conducting a voice meeting with a remote party not registered in the phone book

Set “Line I/F” to “ISDN(Telephone)” on page 1 of the Dial Setup menu. During the Voice Meeting, the “Voice Only” indicator is displayed.

*For “Line I/F” setting, see “To call a remote party not registered in the Phone Book” on page 79.*

---

## To register a remote party for a Voice Meeting

Set “Line I/F” to “ISDN(Telephone)” in the List Edit menu displayed from the Phone Book menu.

*For registration, see “Registering a Remote Party – Phone Book” on page 68.*

---

## To set the audio compression format

Select the audio compression format by setting “Telephone Mode” on page 1 of the Dial Setup menu.

When you initiate the voice meeting, set “Telephone Mode” to “Auto”. When set to “Auto”, the G.711  $\mu$ -law format is automatically selected.

You need not set the audio compression format when receiving a call from the remote party.

*For the “Telephone Mode” setting, see page 44.*

---

# Controlling the Remote System With the Tone Signal – DTMF Transmission

The Video Communication System enables you to control the remote system connected by transmitting the tone signal (DTMF: Dual Tone Multi Frequency) assigned to the numbers for dialing (0-9, #, \*).

- 1** Press the \* button on the Remote Commander during communication.  
The DTMF menu appears on the monitor screen.
- 2** Press one of the number buttons (0-9, #, \*) on the Remote Commander corresponding to the tone signal you want to transmit to the remote party.  
The tone signal will be transmitted when the button is pressed.
- 3** To stop transmitting the tone signal, press the PUSH ENTER button on the Remote Commander.  
The DTMF menu disappears.



# Conducting a Data Conference Using NetMeeting – T.120 Data Conference

Connecting the Communication Terminal to the computer with NetMeeting\* installed enables conduct of a data conference in compliance with the T.120 standard of the ITU-T Recommendation via the PCS-G70/G70P Video Communication System only when it is connected over ISDN.

\* NetMeeting is a registered trademark of Microsoft Corporation.

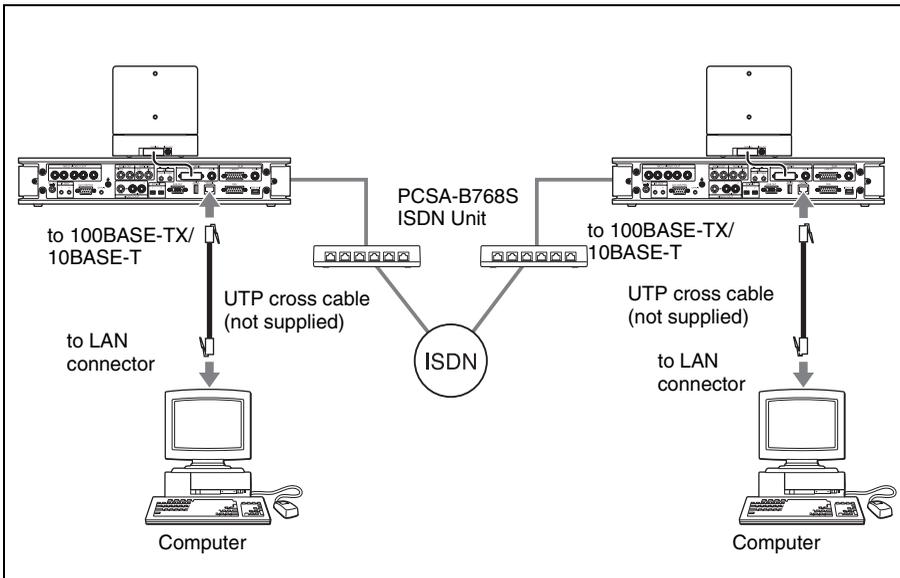
## Notes

- When the Communication Terminal is used for a multipoint videoconference, the T.120 data conference is not available.
- When the PCS-G70/G70P Video Communication System is connected with a videoconferencing system at the remote party via LAN, conduct the T.120 data conference using a computer instead of the PCS-PG70/PG70P.

## To connect a computer

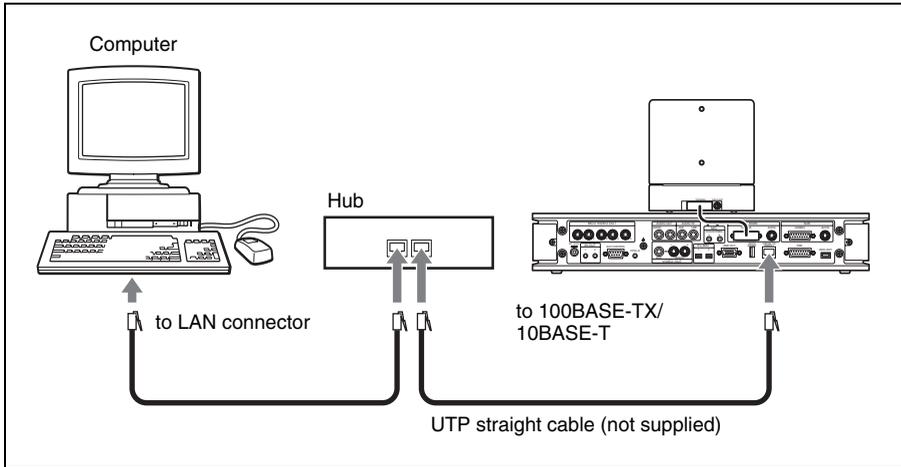
### To connect a computer to the connector on the Communication Terminal

Use a commercially available UTP cross cable (category 5) to connect the LAN connector on the computer with the 100BASE-TX/10BASE-T connector on the Communication Terminal.



## To connect to a computer via a hub

Connect the Communication Terminal to a computer using the UTP straight cable.



---

## To configure the Communication Terminal

Open the “Device Setup” on page 1 of the General Setup menu, and then enter the IP address of the computer where the NetMeeting application is installed in the “T.120 PC Address” text box. (See page 54.)

Set “T.120 Data” to “On” on page 3 of the Communication Setup menu. (See page 48.)

### Note

We recommend that you set “Audio Mode” to “G.728” on page 3 of the Communication Setup menu.

---

## To connect to a remote party using NetMeeting

Before connecting, install the NetMeeting application in your computer.

- 1 Double-click the NetMeeting icon, or click “NetMeeting” from the Start menu on the computer’s window.  
NetMeeting starts.
- 2 Set the Communication Terminal to communication mode.  
Check that the “T.120” indicator is displayed on the monitor screen.
- 3 Click “Calling” in the NetMeeting window on the computer of either a local or remote party.
- 4 Enter the IP address set for the Communication Terminal in the “Address” text box of the “Call to” dialog box.

## **5** Click “Call”.

After a while the connection is completed.

*For details on how to operate, refer to the Help menu of the NetMeeting application.*

### **About the transmission rate**

The Communication Terminal supports the following transmission rates:

**MLP:** 6.4 Kbps, 24 Kbps, 32 Kbps

**HMLP:** 62.4 Kbps, 64 Kbps, 128 Kbps.

---

# Accessing the Communication Terminal

The following controls are available to access the Communication Terminal. For details on each control, consult your Sony dealer.

## Using a Web Browser

Accessing the IP address of the Communication Terminal from a Web browser allows you to control or set up the terminal.

*For details on the password to access or Web monitoring feature, see “Administrator Setup Menu” on page 56.*

## Using Telnet

Accessing the IP address of the Communication Terminal from Telnet allows you to control or set up the terminal.

*For details on the password to access or Web monitoring feature, see “Administrator Setup Menu” on page 56.*



# Chapter 5: Data Conference

This chapter shows you how to use the data from a computer, etc. connected to the optional PCSA-DSB1S Data Solution Box for a conference.

The optional PCSA-DSB1S Data Solution Box is equipped with various input/output connectors. For example, connecting the RGB output on a computer enables you to transmit the pictures or text data displayed on the computer to a remote party. When you connect a projector, you can display a high-resolution image from a computer on the projector at a high transmission rate. The PCSA-DSB1S is also equipped with connectors for connecting active speakers and microphones. The PCSA-DSB1S is connected with the Communication Terminal using the interface cable for exclusive use.

The party who receives the data, even if the party has no Data Solution Box or uses another videoconferencing system such as PCS-11/11P and PCS-1600, can view the computer images sent from the other party. However, the quality of the picture received varies with the components of the system. If the Data Solution Box is used by the party who receives the data, a larger number of frames per second is obtained than the system without the Data Solution Box. It allows you to obtain a high-resolution motion picture from a computer.

*For details on picture quality depending on the system components, see "Picture quality of the data solution box" on page 148.*

*For details on RGB signal specifications, see "Acceptable RGB Input/Output Signals" on page 215.*

## **Restrictions on the IP address of the system when using the Data Solution Box**

The IP address available for the PCS-G70/G70P Video Communication System is restricted when you use the Data Solution Box. Moreover, a network for communication between the Data Solution Box and the Communication Terminal should be set up to be a separate segment.

As a result, unusable IP address is the value obtained from the AND operation with the address of the Data Solution Box for communication and the network mask.

(Unusable IP address for the PCS-PG70/PG70P) = (IP address of the PCSA-DSB1S) & (Network mask)

The IP address of the PCSA-DSB1S is fixed at "192.254.1.2". If the Network mask is assumed to be "255.255.0.0", an unusable IP address is as follows:

$$192.254.m.n \ (0 \leq m \leq 255, 0 \leq n \leq 255)$$

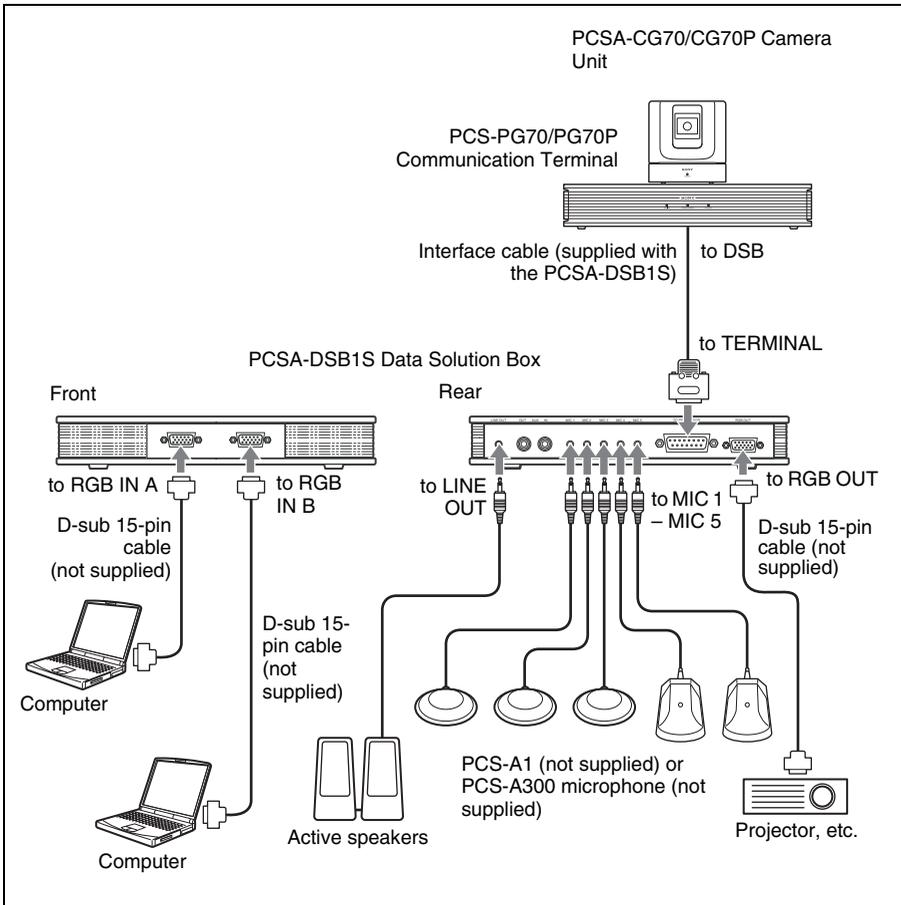
## **Note on the camera picture when using the Data Solution Box**

When transmitting a signal via the Data Solution Box, the camera picture quality will be lower owing to the decreased number of frames.

# Connection Example Using the Data Solution Box

## Notes

- Be sure not to turn on the power of each unit until all the connections are completed.
- Do not connect/disconnect the camera cable or the interface cable with the power on. Doing so may damage the Camera Unit, Communication Terminal or Data Solution Box.
- Used with the Data Solution Box for the first time, the Communication Terminal may automatically upgrade the software of the Data Solution Box. While the upgrading message is displayed on the monitor screen, be sure not to turn off the Communication Terminal. Doing so may cause malfunction of the system.



### **Notes on the connection example**

- Power to the Data Solution Box is supplied from the PCS-PG70/PCS-PG70P Communication Terminal with a connection described above.
- Connect a projector, etc. to the RGB OUT connector on the Data Solution Box.

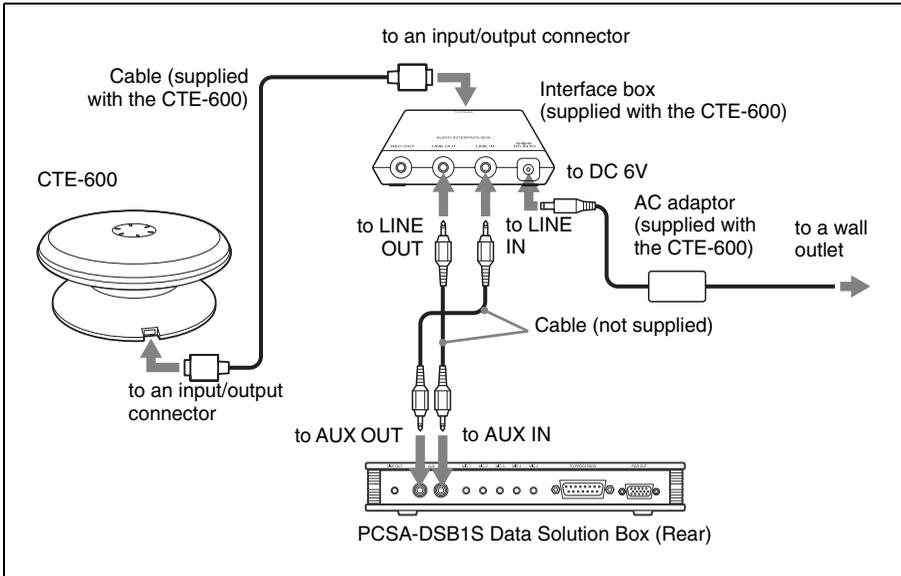
This connection enables you:

- To display the computer picture on the local site while transmitting it to the remote site.
  - To display the received computer picture with optimum picture quality.
- The received computer picture can also be output from the VIDEO OUT or RGB OUT connector on the PCS-PG70/PCS-PG70P Communication Terminal, but the computer picture while transmitting cannot be output from these connectors.

### **Notes on the connection of a microphone**

- Up to five microphones can be connected with the Data Solution Box.
- When using external microphones, the sound transmitted to the remote party may become unclear due to noises in a conferencing room. In this case speak close to the microphone.
- When using multiple microphones, the Echo Canceler function cannot be fully utilized depending on the type of conference room. In this case, try to suppress any echo in the room or decrease the number of microphones.
- You cannot use the microphones connected to the Data Solution Box together with those connected to the Communication Terminal or the built-in microphone.

## Connecting the CTE-600 Communication Transducer



### To use the Communication Transducer connected to the Data Solution Box

- Set “CTE” on page 1 of the Audio Setup menu to “DSB AUX IN” (page 50).
- Set the SYSTEM SELECT switch at the bottom of the Communication Transducer to “PCS”.

#### Note

You cannot use two or more Communication Transducers in a room and cannot use it together with other microphones.

*For detailed information on the Communication Transducer, refer to the Operating Instructions that come with the Communication Transducer.*

# Using Audio/Video Signal from the Connected Equipment for a Conference

## Setting Before Conferencing

### To use a microphone connected to the Data Solution Box

Set “Mic Select” to “DSB MIC” on page 1 of the Audio Setup menu (page 50).

### To use a projector, etc. connected to the RGB OUT connector on the Data Solution Box

Set “Connection” to “RGB OUT (DSB)” on page 1 of “Monitor Out” on the Video Setup menu (page 52).

## Operating the System During a Conference

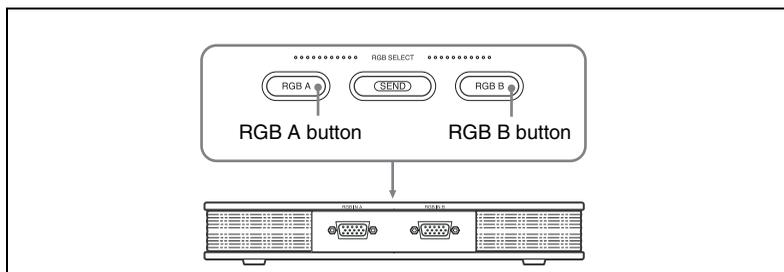
### To select a picture from a computer connected to the Data Solution Box

#### When using the buttons on the Data Solution Box

Press the RGB A or RGB B button on the upper panel of the Data Solution Box.

To select the picture from the computer connected to the RGB IN A connector, press the RGB IN A button, or the RGB IN B button to select that from the computer connected to the RGB IN B connector.

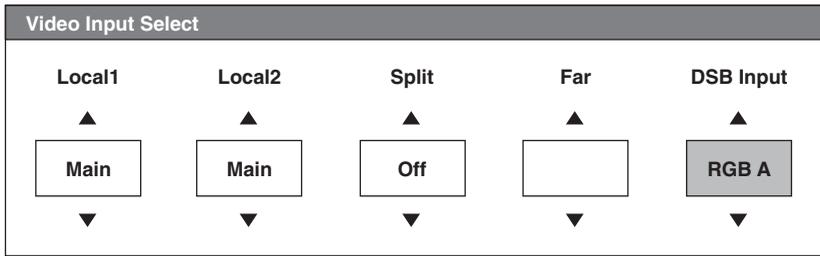
The indicator of the selected button lights.



#### When using the Remote Commander

- 1 Press the VIDEO INPUT SELECT button on the Remote Commander. The Video Input Select menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select the “RGB A” or “RGB B” input from “DSB Input”.  
**RGB A:** Select the picture from the computer connected to the RGB IN A connector.

**RGB B:** Select the picture from the computer connected to the RGB IN B connector.



**3** Press the PUSH ENTER button on the Remote Commander.

The indicator of the RGB A or RGB B button on the upper panel of the Data Solution Box lights according to the selected input.

**Note**

Even if you select the input with the buttons on the Data Solution Box, the display in the Video Input Select menu will not change.

---

**To transmit a picture from a computer connected to the Data Solution Box**

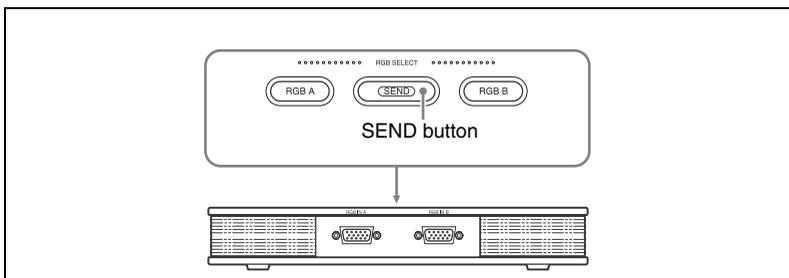
Press the SEND button on the upper panel of the Data Solution Box.

The indicator on the SEND button lights and the picture of the equipment selected with the RGB A or RGB B button or the VIDEO INPUT SELECT button is displayed on the projector, etc. connected to the RGB OUT connector on the Data Solution Box. While in communication, the picture selected on the Data Solution Box is transmitted to the remote party simultaneously.

Such computer picture is displayed without any conversion as input to the Data Solution Box. The detailed portion of the picture transmitted to the remote party may not be clearly seen and the number of frames may be reduced.

*For details on picture quality, see "Picture quality of the data solution box" on page 148.*

*For picture transmission using the Remote Commander, see page 121.*



**Note**

While you are transmitting the computer picture, you cannot receive a still image or a computer picture from any other terminal. Ending your transmission enables you to receive it. When you are receiving a still image or computer picture from any other terminal, you cannot transmit a computer picture from equipment connected to the Data Solution Box.

---

**To transmit the picture from a computer to multiple points**

If you install the optional PCSA-M3G70 H.323 (for LAN) or PCSA-M0G70 H.320 (for ISDN) MCU software, you can transmit the picture from the computer to multiple points.

---

**Picture quality of the data solution box**

The picture quality received by the remote party varies depending on the type of the terminal or connecting method, or “Monitor Out (or Sub Monitor Out)” setting on the remote site. Using the Data Solution Box on the remote site enables receipt of a high-quality computer picture with larger number of frames.

**When the PCS-PG70/PG70P is used as a receiving terminal**

Monitor used to display the picture of the Data solution Box	Output connector for a computer picture on receiving terminal	Resolution	Video frame rate	Picture quality
VIDEO OUT 1 or VIDEO OUT 2	VIDEO OUT 1 or VIDEO OUT 2 on the PCS-PG70/PG70P	○	○	Outputs the signal by converting a transmitted VGA, SVGA or XGA signal into a 4CIF signal. The original high-resolution picture cannot be obtained and details cannot be clearly seen. The number of frames displayed per second depends on the interface transmission rate. For example, one frame per second is obtained at 1 Mbps.
RGB OUT	RGB OUT on the PCS-PG70/PG70P	◎	○	Outputs the signal by converting a transmitted VGA, SVGA or XGA signal into an XGA signal. The high-resolution picture can be obtained. The number of frames displayed per second depends on the interface transmission rate. For example, one frame per second is obtained at 1 Mbps.
DSB	RGB OUT on the PCSA-DSB1S (only when the PCSA-DSB1S is enabled)	◎	◎	Outputs the signal by converting a transmitted VGA, SVGA or XGA signal into an XGA signal. The high-resolution picture can be obtained. You can view more vivid picture than the picture output from the RGB OUT connector on the Communication Terminal. The number of frames displayed per second depends on the interface transmission rates. For example, five frames per second is obtained at 1 Mbps.

◎ : High, ○ : Middle, △ : Low

*For details about the settings concerning video output from each output connector, see “Displaying the Picture on a Projector or Monitor” on page 151, and the Video Setup menu “Monitor Out” on page 52.*

### When the PCS-11/11P is used as a receiving terminal

Resolution	Video frame rate	Remarks
○	○	Outputs the signal by converting a transmitted VGA, SVGA or XGA signal into a 4CIF signal. The original high-resolution picture cannot be obtained and details cannot be clearly seen. The number of frames displayed per second depends on the interface transmission rate. For example, one frame per second is obtained at 1 Mbps.

◎ : High, ○ : Middle, △ : Low

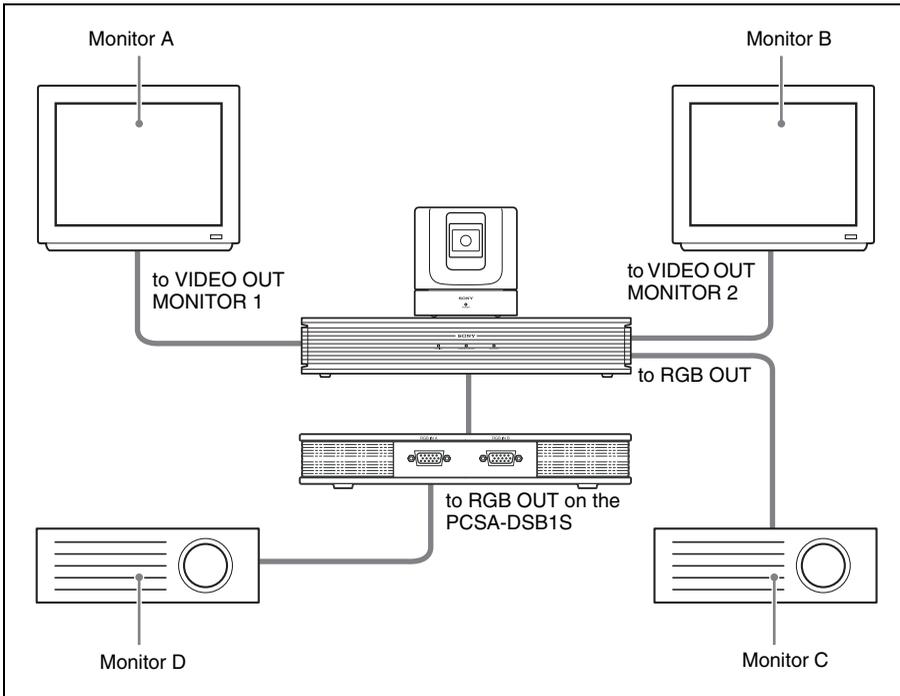
### When a videoconferencing system other than the PCS-G70/G70P or PCS-11/11P such as the PCS-1600 is used

Resolution	Video frame rate	Remarks
○	△	Sends and receives the pictures in 4CIF, and the original high-resolution picture cannot be obtained and detailed portion cannot be clearly seen. The number of frames displayed per second depends on the interface transmission rates. For example, one frame per several seconds is obtained.

◎ : High, ○ : Middle, △ : Low

# Displaying the Picture on a Projector or Monitor

When you connect the Data Solution Box to the Communication Terminal, connections with external monitors, etc. using the following four outputs are available. The connections allow output of the picture to one, two or three monitors selected from among four.



## Outputting the Signal to One Monitor

Select the output with “Monitor Out” in the Video Setup menu.

**VIDEO 1:** Outputs the signal to the monitor (monitor A in the illustration above) connected to the VIDEO OUT MONITOR 1 connector of the Communication Terminal.

**VIDEO 2:** Outputs the signal to the monitor (monitor B in the illustration above) connected to the VIDEO OUT MONITOR 2 connector of the Communication Terminal.

**RGB OUT:** Outputs the signal to the monitor (monitor C in the illustration above) connected to the RGB OUT connector of the Communication Terminal.

**RGB OUT (DSB):** Outputs the signal to a monitor (monitor D in the illustration above) connected to the RGB OUT connector of the Data Solution Box.

### **When connecting a monitor to the RGB OUT connector on the Data Solution Box**

The menus may not be displayed. In this case, change the setup of your system as described below.

- 1** Connect your monitor to the RGB OUT connector of the Communication Terminal.
- 2** Set “Connection” in the Video Setup menu to “RGB OUT (DSB)”.
- 3** Reconnect the monitor to the RGB OUT connector of the Data Solution Box.

## **Outputting the Signal to the Second or Third Monitor**

The first monitor for displaying motion pictures is fixed to the monitor connected to the VIDEO OUT MONITOR 1 connector of the Communication Terminal (monitor A in the illustration of the previous page).

Select the output to the second and third monitors with “Connection” in the Video Setup menu.

**VIDEO OUT2:** Outputs the signal to the monitor connected to the VIDEO OUT MONITOR 2 connector (monitor B in the illustration of the previous page) of the Communication Terminal.

**RGB OUT:** Outputs the signal to the monitor (monitor C in the illustration of the previous page) connected to the RGB OUT connector of the Communication Terminal.

**DSB:** Outputs the signal to the monitor (monitor D in the illustration of the previous page) connected to the RGB OUT connector of the Data Solution Box.

# Chapter 6: Videoconference Using a Whiteboard

This chapter describes how to use your whiteboard for your videoconferencing system.

You can transmit and receive notes written on the whiteboard in real-time in a videoconference. You can also store the transmitted or received data in a Memory Stick as still images.

Your whiteboard is usable for a videoconference only when the optional mimio Xi\* is used together with the system.

*For product information on the mimio Xi, contact your nearest Sony dealer.*

\* mimio® is a registered trademark of Virtual Ink Corporation of the United States.  
minio Xi is a trademark of Virtual Ink Corporation of the United States.

## **Note**

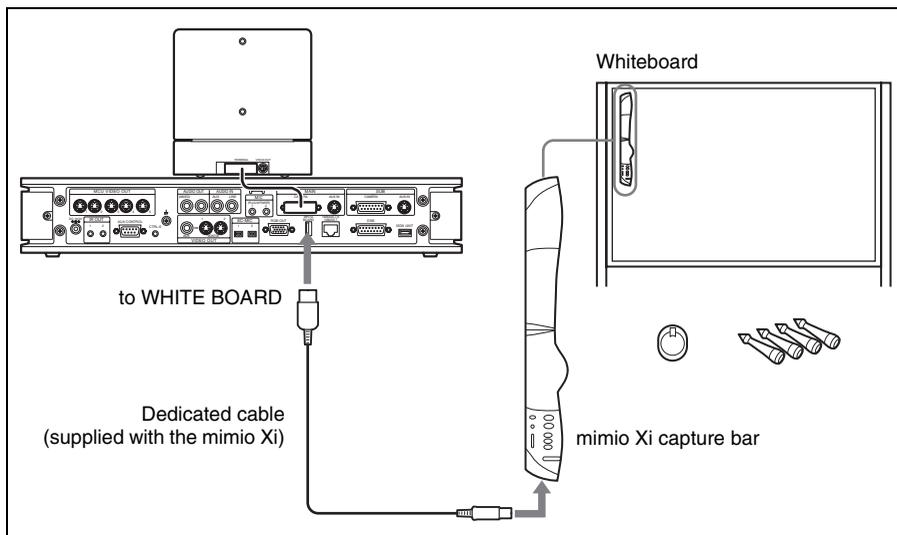
Videoconferencing using the whiteboard is available only between PCS-G70/G70P systems or when a receiving terminal is PCS-11/11P. You cannot use this function with other Sony videoconferencing systems such as PCS-1600, or other manufacturers' systems.



# Connection Example With a Whiteboard

## Notes

- Be sure to turn off all the equipment before making any connections.
- Do not connect/disconnect the cable with the power on. Doing so may damage the Camera Unit, Communication Terminal or mimio Xi.



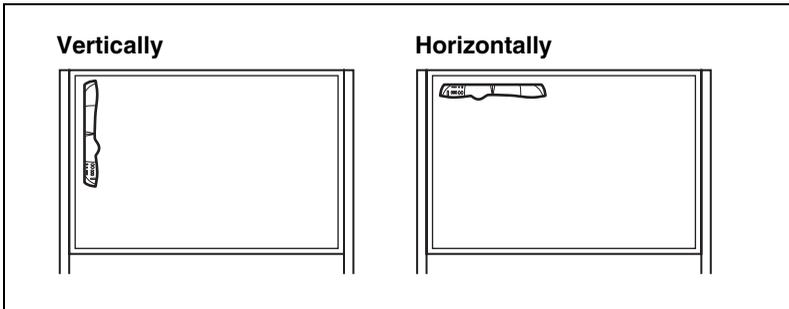
## Notes on using the mimio Xi

- Do not use any cable other than the dedicated cable supplied with the recorder.
- Attach the capture bar at the upper left corner of the whiteboard.
- Use only the stylus, marker and eraser that come with the mimio Xi for writing on a whiteboard.
- Do not connect a device other than the mimio Xi to the WHITE BOARD connector on the Communication Terminal.

---

# Attaching the mimio Xi on the Whiteboard

Attach the mimio Xi at the upper left corner of a whiteboard vertically or horizontally, then set the attachment orientation of the mimio Xi and the size of the whiteboard using the menu.



---

## To set the attachment orientation of the mimio-Xi

According to the orientation of the mimio Xi, set “Whiteboard Attachment” to “Vertical” or “Horizontal” in “Whiteboard” of the General Setup menu (page 53).

---

## To specify the whiteboard size to be used

After selecting “Inches” or “Meters” from “Whiteboard Size Measurement” in “Whiteboard” of the General Setup menu, select the size of the whiteboard from “Whiteboard Size” (page 56).

You can select one of the following sizes (height × width):

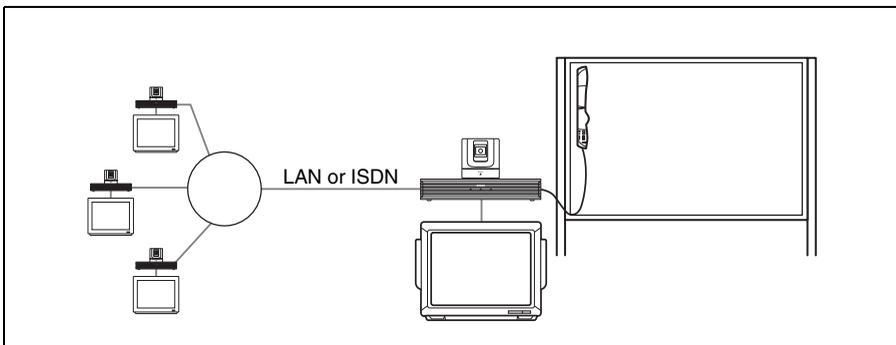
**When you attach the mimio Xi vertically**

2'0" × 3'0" (0.6 × 0.9 m), 3'0" × 4'0" (0.9 × 1.2 m), 4'0" × 6'0" (1.2 × 1.8 m),  
4'0" × 8'0" (1.2 × 2.4 m)

**When you attach the mimio Xi horizontally**

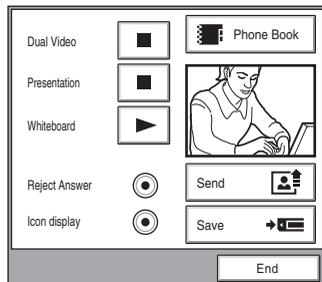
3'0" × 2'0" (0.9 × 0.6 m), 4'0" × 3'0" (1.2 × 0.9 m), 6'0" × 4'0" (1.8 × 1.2 m),  
8'0" × 4'0" (2.4 × 1.2 m)

# Conducting a Videoconference Using a Whiteboard



- 1 Start the videoconference.
- 2 When you intend to send the whiteboard picture, press the PUSH ENTER button on the Remote Commander to display the communication submenu on the monitor screen.

## Communication submenu

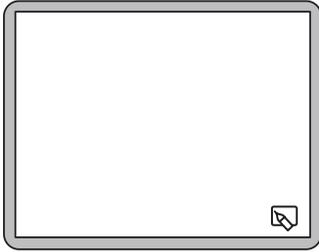


- 3 Press the  $\uparrow$  or  $\downarrow$  button on the Remote Commander to select “Whiteboard ”, then press the PUSH ENTER button.

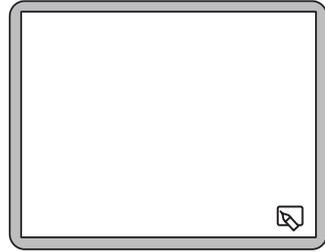
The whiteboard picture and icon appears on the monitors of both the local and remote parties.

When the local party uses the dual monitor mode, it will be displayed on the sub-monitor (second monitor).

Local monitor screen

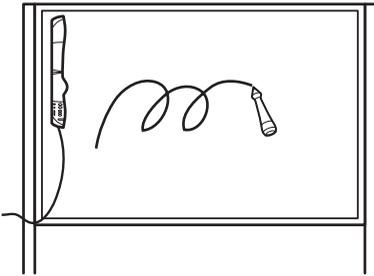


Remote monitor screen

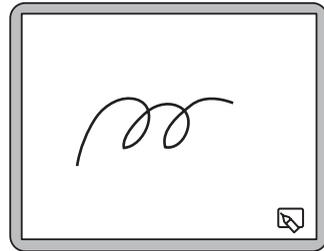


- 4** Write anything using the stylus, marker or eraser that come with the mimio Xi on the whiteboard.  
The notes you are writing are displayed in real-time on the remote and local monitor screens.

Whiteboard



Monitors on the local and remote parties



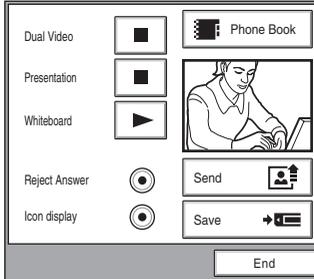
#### Notes

- Only one whiteboard can be used at a time. If more than two terminals use the whiteboard with the mimio Xi connected, the whiteboard picture written by the party who has turned on the whiteboard first will be displayed on the monitors of all the terminals.
- Set both “Far End Camera Control” on page 3 of the Communication Setup menu (page 48) to “On”. The whiteboard cannot be used for a videoconference this item items are set to “On” for all the participating terminals.
- If a party joins in during the middle of the multipoint conference using a whiteboard, the monitor of the party displays only the whiteboard picture written from that time. The pictures transmitted before participation are not displayed on his monitor.

---

## To store the notes written on the whiteboard

Display the communication submenu and then select “Save”.  
The whiteboard picture displayed on the monitor will be stored in the “Memory Stick” as a still image.



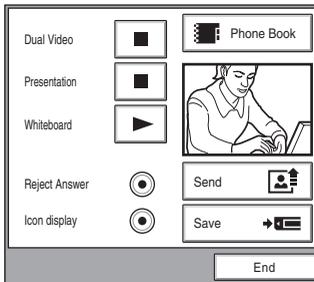
---

## To exit from the whiteboard mode

The whiteboard user should open the communication submenu, select “Whiteboard ”, then press the PUSH ENTER button.

The pictures displayed on the monitors of all the terminals switch to the normal camera pictures.

Under this circumstance, any terminal may turn on the whiteboard.



### Note

Once the conference has ended, you cannot display the notes written on the monitor screen. If you want to do so, storing the notes on a “Memory Stick” is recommended. See “To store the notes written on the whiteboard”.

# Chapter 7: Encrypted Videoconference via LAN

When a highly confidential videoconference is required or a videoconference is held via internet, the Video Communication System enables transmission and reception of encrypted video, audio and data output from the Data Solution Box between the systems identified as the same password. Conducting a videoconference using this feature is known as an encrypted videoconference via LAN.

This chapter describes how to conduct an encrypted videoconference via LAN.

The encrypted videoconference via LAN is available only among PCS-G70/G70P Video Communication Systems or between PCS-G70/G70P and remote parties (receiver) using PCS-11/11P, PCS-1/1P or PCS-TL50/TL50P Video Communication Systems connected via LAN. You cannot conduct an encrypted videoconference if the system is connected via an ISDN, via ISDN & LAN, or with Sony video communication systems other than the PCS-G70/G70P, PCS-11/11P, PCS-1/1P or PCS-TL50/50P, or with other manufacturers' videoconferencing systems.

The encryption feature can also be used in multipoint conference using LAN connection (including the cascade connection via LAN).

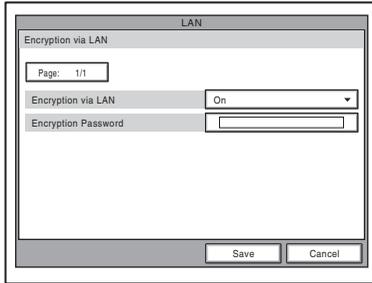
## Note

In an encrypted conference only video signals, audio signals and RGB signals from a computer connected to the Data Solution Box are encrypted. Camera control signals (for controlling the other party's camera) and whiteboard pictures cannot be encrypted.

---

# Preparing for an Encrypted Videoconference via LAN

To start an encrypted videoconference, each terminal has to set the same password and set “Encryption via LAN” to “On” in the LAN Setup menu.



- 1** Enter a password using 13 to 20 alphabetical characters, numbers, or symbols.
- 2** Select “On” for “Encryption via LAN” in the LAN Setup menu.

*For details on setting, see “Encryption via LAN Page 1/1” on page 63.*

## Notes

- If you set “Encryption via LAN” to “On”, you cannot connect to a terminal that is not equipped with the encryption feature to a terminal with “Encryption via LAN” set to “Off”, or to a terminal without the same password as that of your system.
- You can conduct a videoconference without an encryption feature with a terminal connected via an ISDN even if you set “Encryption via LAN” to “On”.

# Starting an Encrypted Videoconference via LAN

You can start an encrypted videoconference via LAN by calling a remote party in the same manner as a daily videoconference.

During an encrypted videoconference via LAN, the  (encryption) icon is displayed on the screen.



## Notes

- When the  icon is not displayed on the screen, transmission and reception data will not be encrypted. Be sure to confirm if the  icon is displayed before starting an encrypted videoconference.
- As the encryption feature is not available for a terminal connected via an ISDN, the  icon does not appear on the screen of such a terminal.

## When the encrypted videoconference via LAN is disabled

If the following message appears when you call a remote party, an encrypted videoconference via LAN is not available.

Error Messages	Causes
The encryption feature on a far-end system is disabled.	The encryption feature via LAN on the remote system is disabled.
The entered password for the encryption feature is not correct.	The password entered on the remote system is not the same as that on the local system.
The encrypted videoconference is not available if any terminal is connected via ISDN.	While the videoconference is held via an ISDN connection, you cannot connect any terminal via the LAN connection if your encryption via LAN feature is activated.

# Chapter 8: Multipoint Videoconference

This chapter describes how to conduct a multipoint videoconference. For conducting a multipoint videoconference, installation of the optional PCSA-M3G70 MCU software (for LAN connection) based on the H.323 standard or the optional PCSA-M0G70 MCU software (for ISDN connection) based on the H.320 standard is required. Multipoint videoconference among up to ten points including the local site is available when connecting via a LAN. When connecting via ISDN lines, you can conduct a multipoint videoconference among up to six points including the local site. You can use a normal phone at up to five points over ISDN. A multipoint videoconference using the ISDN and LAN connections mixed is also available.

## **Restrictions on the use of the MCU software**

- When a multipoint videoconference is held via LAN, the bandwidth is automatically set so that the total value of all the points is 4 Mbps at maximum. The bit rate for each point varies with the points you connect.
- When a multipoint videoconference is held via ISDN, the same number of channels should be used on all the points and the total channels are up to 12B.
- The supported video modes are H.264, H.263, and H.261 only.
- The supported audio modes are G.711, G.722, G.728, and MPEG4 AAC only.

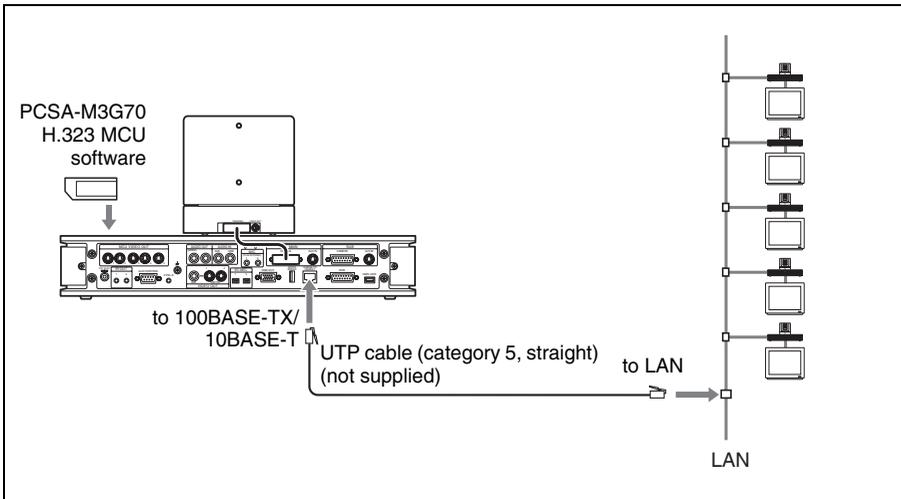
# Connection Examples for a Multipoint Videoconference

## Using the LAN Connection (Up to 6 Points)

Installing the optional PCSA-M3G70 H.323MCU software in a Communication Terminal allows you to conduct multipoint videoconferences with up to six points.

Connecting five monitors allows you to display several points on the monitors. The point names are displayed on-screen.

If you are already conducting a two-point videoconference when a third point call, the system automatically opens a multipoint conference. This is referred as the “on-the-fly” function.

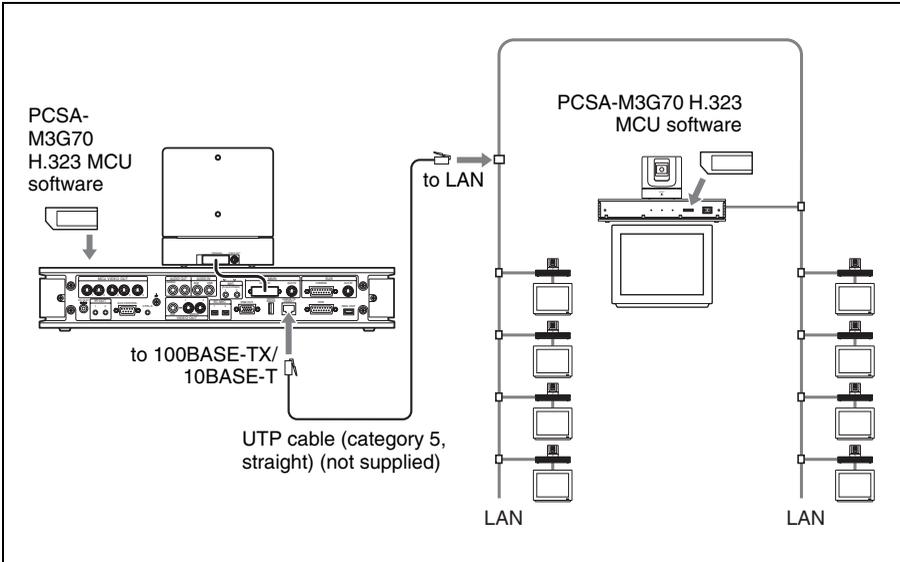


### Note

For a multipoint videoconference only the Communication Terminal in which the PCSA-M3G70 H.323 MCU software can be installed is used as main terminal. If you want to use multiple Communication Terminals as main terminals depending on the type of conference, the same number of H.323 MCU software as that of the main terminals is required.

## Using the Cascade Connection via LAN (Up to 10 Points)

Installing the optional PCSA-M3G70 H.323MCU software in two Communication Terminals enables cascade connection, allowing you to conduct a multipoint videoconference with up to ten points.

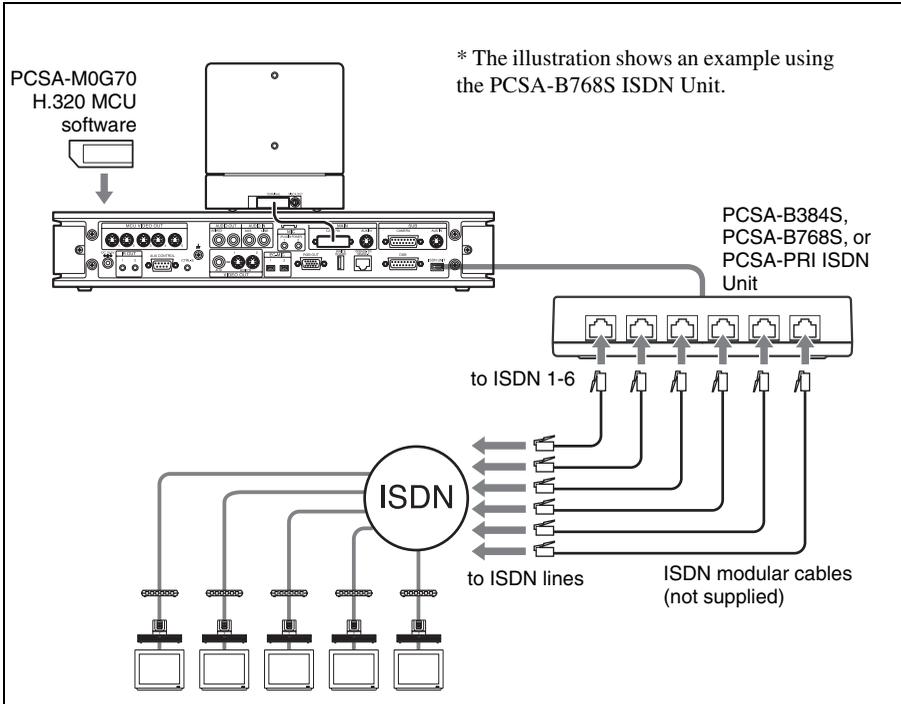


### Notes

- Installing the PCSA-M3G70 H.323 MCU software into three or more Communication Terminals does not allow cascade connection. Note that the third or later terminals should set “Multipoint Mode” to “Off” on page 4 of the Communication Setup menu.
- For cascade connection, the “Split” and “Split (Fixed)” modes are not available. Only the “Voice Activate” mode is available.

## Using the ISDN Connection

Installing the optional PCSA-M0G70 H.320 MCU software in one Communication Terminal allows you to conduct a multipoint videoconference with up to six points by using the optional PCSA-B384S, PCSA-B768S, or PCSA-PRI ISDN Unit.



### Notes on the number of ISDN lines used and number of remote parties for a multipoint conference

You can select the number of ISDN channels to be used for connecting the first remote point using "Number of Lines" in the Communication menu.

The number of connectable remote points is defined by the number of ISDN lines used and the "Number of Lines" setting. For example, when you use three ISDN lines (up to 6B channels are usable) and set the menu to "4B (256K)," 4B channels are used for the first remote point connection, and the remaining 2B channels are used for the second remote point connection.

**Note**

When you are called from a remote party and the remote party has set a lower number of ISDN channels than that in this terminal, the setting on the remote party's terminal has priority.

**To connect with a normal phone**

When you are using an ISDN connection, a normal phone can be connected at up to five points.

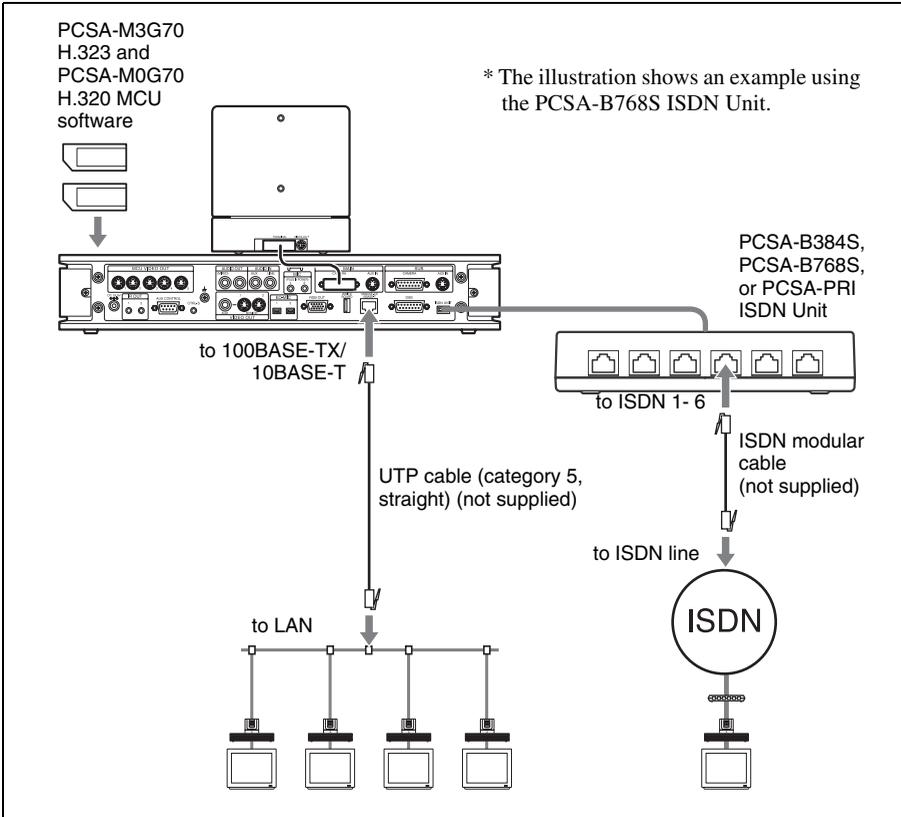
Only the 1B (64K) connection is available for a normal phone.

**Notes**

- When using the ISDN connections, installing the PCSA-M0G70 H.320 MCU software into two or more Communication Terminals does not allow cascade connection.
- For a multipoint videoconference only the Communication Terminal in which the PCSA-M0G70 H.320 MCU software is installed is used as the main terminal. If you want to use two or more Communication Terminals as main terminals depending on the type of conference, the same number of H.320 MCU software as that of the main terminals is required.

## Using Both LAN and ISDN

Installing both the PCSA-M3G70 H.323 and PCSA-M0G70 H.320 MCU software in one Communication Terminal enables conduct of a multipoint videoconference with the terminals connected via a LAN and ISDN.

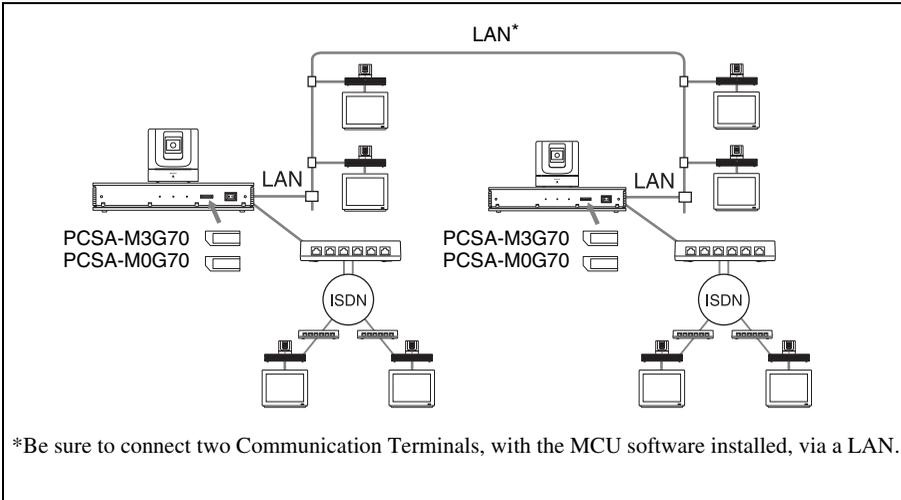


### Note

The connection example above includes four terminals via the LAN connection and one terminal via the ISDN connection. There is no limitation on the number of LAN and ISDN connections.

## Using the LAN and ISDN cascade connection

Installing both the PCSA-M3G70 H.323 and PCSA-M0G70 H.320 MCU software in two Communication Terminals enables cascade connection including two main terminals. Connecting four terminals to one main terminal allows you to conduct a multipoint videoconference via a LAN and ISDN with up to ten points.



### Note

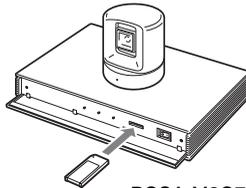
Be sure to make connection between two Communication Terminals via LAN. Even if the PCSA-M0G70 H.320 MCU software is installed in both the Terminals, cascade connection via an ISDN is not available.

# Installing the MCU Software

## Notes on installing the MCU software

- You cannot install the software if the write-protect tab on the Memory Stick where the MCU software is stored is set to “LOCK”.
- Once the MCU software is installed in the Communication Terminal, the software is not used again.
- You cannot install MCU software that was copied to another Memory Stick with a computer, etc.

- 1** Open the front panel of the Communication Terminal, and then slide the power switch on the right to the off position (O).
- 2** Insert the “Memory Stick” containing the PCSA-M3G70 or PCSA-M0G70 MCU software into the Memory Stick slot.  
Insert the “Memory Stick” in the direction of the arrow with the mark facing upward.

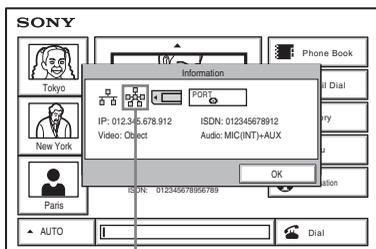


PCSA-M3G70 or PCSA-M0G70 MCU software

- 3** Slide the power switch on the right to the off position (I).  
The MCU software is installed in the Communication Terminal.

## To check if the installation of the software is complete

Press the launcher's Information button to display the information. When a multipoint mode icon appears, the MCU software is installed correctly. If the "Multipoint Mode" is "On", the icon is highlighted.



Multipoint mode icon

The installed software in the Information menu.

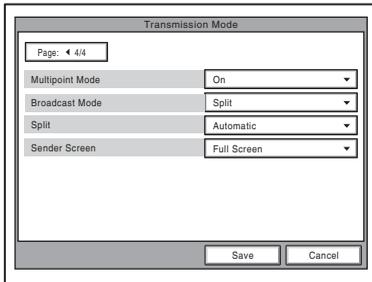
*For details on the Information menu, see "Using the Launcher Menu" on page 75.*

# Setting for a Multipoint Videoconference

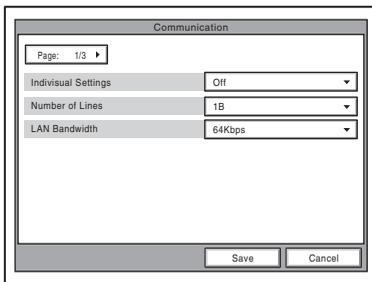
## Communication Setup menu

You can configure various multipoint videoconferencing settings in the Communication Setup menu.

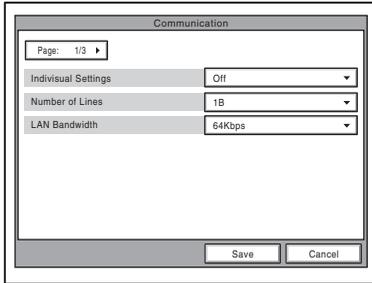
- 1 Set the “Multipoint Mode” on page 4 of the Communication Setup menu to “On”.



- 2 Select the number of ISDN channels to be used for connecting with the first remote point of a multipoint videoconference in “Number of Lines” on page 1 of Communication Setup menu. The number of connectable remote points is defined by the selected number of channels and the number of ISDN lines used.



- 3** Select the LAN bandwidth to be used for multipoint videoconferencing in “LAN Bandwidth” on page 1 of the Communication Setup menu.



The screenshot shows a window titled "Communication" with a page indicator "Page: 1/3". It contains three settings:

Individual Settings	Off
Number of Lines	1B
LAN Bandwidth	64Kbps

At the bottom of the window are "Save" and "Cancel" buttons.

## Registering the Remote Parties in the Multipoint Connection List

You can register the multipoint connection list that includes all remote parties for a multipoint videoconference in the Phone Book. It allows you to dial all the parties simultaneously.

You can enter new remote parties to register the multipoint connection list, or add the parties registered in the Phone Book to the multipoint connection list.

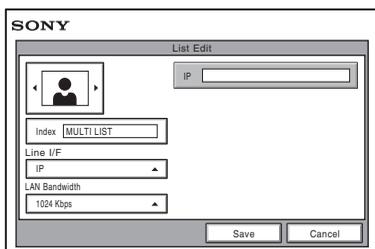
### To register a multipoint connection list in the Phone Book

The basic procedure for registration is the same as the registration of a remote party for a point-to-point videoconference.

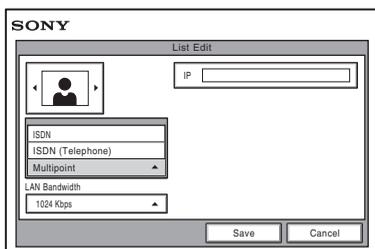
*For details on the procedure, see “Registering a New Remote Party” on page 68.*

- 1 Select “New Entry” in the Phone Book menu to display the List Edit menu, then enter the name of the multipoint connection list in the Index text box.

*For details on entry, see steps 1 to 3 “Registering a New Remote Party” on page 68.*



- 2 Select “Multipoint” under “Line I/F”.



- 3 Select the line interface icon or a still image to be displayed in the Phone Book.

The icon is shown as “”.

- 4 Set up the line interface of the remote parties.

**When PCSA-M3G70 H.323 MCU software (for LAN) is installed**

Select “IP”, and enter the IP addresses of all the parties for the multipoint videoconference in text boxes A to E.

### When PCSA-M0G70 H.320 MCU software (for ISDN) is installed

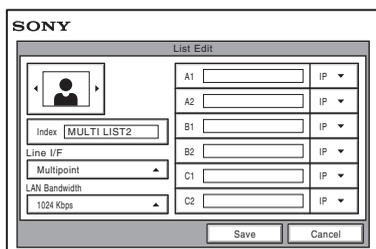
Select “ISDN” or “ISDN (Telephone)”, and enter the line numbers or phone numbers of all the parties for the multipoint videoconference in text boxes A to E.

### When both PCSA-M3G70 H.323 MCU software (for LAN) and PCSA-M0G70 H.320 MCU software (for ISDN) are installed

Select Multipoint and a drop-down list is displayed to the right of text boxes A to E. When using a LAN, enter the IP address, and select “IP” from the drop-down list. When using ISDN, enter the line number, and select “ISDN” from the drop-down list.

When using ISDN (Telephone), enter the telephone number, and select “ISDN (Telephone)” from the drop-down list.

Enter all the parties for the multipoint videoconference.



*For details on the setups, see step 5 in “Registering a New Remote Party” on page 68.*

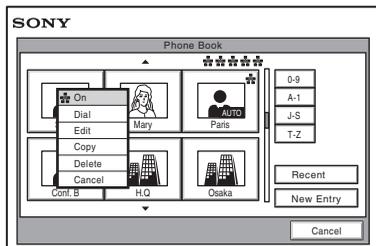
- 5 Press the  $\uparrow$  or  $\downarrow$  button to select “Save”, then press the PUSH ENTER button.

The registration of the multipoint connection list is completed.

---

## To specify a remote party registered in the Phone Book to the multipoint connection list

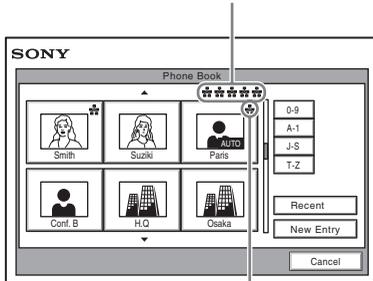
- 1 Use the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$  or  $\rightarrow$  button on the Remote Commander to select the name you want to register in the multipoint connection list.
- 2 Press the  $\star$  button on the Remote Commander, or press the PUSH ENTER button to open the submenu, press the  $\uparrow$  or  $\downarrow$  button to select “ $\star$  On”, then press the PUSH ENTER button.



The ☒ (multipoint) mark is added to the upper right of the selected name in the list and the remote party is registered in the multipoint connection list.

You can add the ☒ marks for up to five parties using the same procedure as above. The ☒ marks are displayed at the upper right corner of the Phone Book, showing how many points you registered for a multipoint connection.

Number of registered points



Multipoint mark

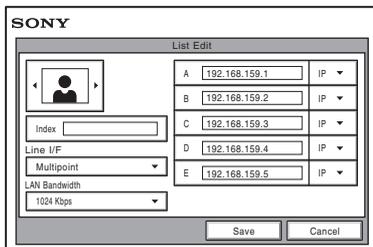
### Note

To delete the ☒ mark from the name list, press the ✖ button again, or press the PUSH ENTER button to open the submenu, press the ▲ or ▼ button to select “☒ Off”, then press the PUSH ENTER button.

**3** Select one of the remote parties with the ☒ mark, then press the PUSH ENTER button.

**4** Press the ▲ or ▼ button to select “☒ Edit” from the submenu, then press the PUSH ENTER button.

The List Edit menu appears. All the IP addresses or telephone numbers of the parties marked with ☒ are entered in the number text boxes.



**5** Enter the name of the multipoint connection list in the Index text box.

**6** Select “Save”, then press the PUSH ENTER button.

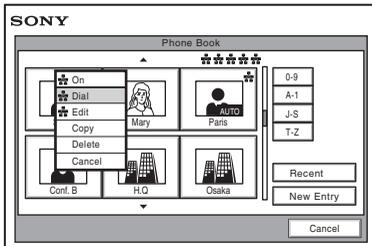
The registration of the multipoint connection list is completed.

# Starting a Multipoint Videoconference

## Calling Remote Parties

### To call remote parties registered in the multipoint connection lists

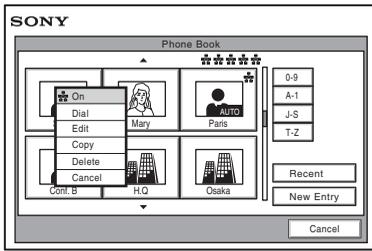
- 1 Select the multipoint connection list registered in the Phone Book.  
The multipoint connection lists are marked with “☒ IP”.
- 2 Press the CONNECT/DISCONNECT (☒ / ☒) button on the Remote Commander, or press the PUSH ENTER button to display the submenu, press the ▲ or ▼ button to select “☒ Dial”, then press the PUSH ENTER button.



The system begins dialing the numbers of the remote parties registered in the multipoint connection list. “Dialing” appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks. When the system connects to all the remote points, the message “Meeting starts!” appears on the screen, and the ON LINE indicator stops blinking and lights.

### To call remote parties by selecting from the Phone Book

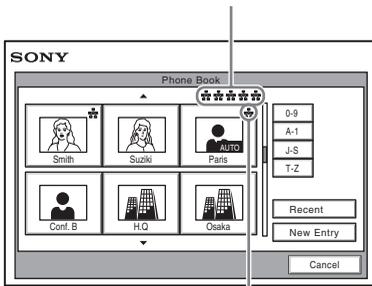
- 1 Select a remote party to which you want to connect for a multipoint videoconference from the Phone Book.
- 2 Press the \* button on the Remote Commander, or press the PUSH ENTER button to open the submenu, press the ▲ or ▼ button to select “☒ On”, then press the PUSH ENTER button.



The **✱✱✱✱** (multipoint) mark is added to the upper left of the selected name in the Phone Book list and the remote party is specified to the party for multipoint connection.

You can add the **✱✱✱✱** marks for up to five parties using the same procedure as above. The **✱✱✱✱** marks added are displayed at the upper right corner of the Phone Book menu.

Number of specified points



Multipoint mark

### Note

To delete the **✱✱✱✱** mark from the name list, press the **✱** button again, or press the PUSH ENTER button to open the submenu, press the **▲** or **▼** button to select “**✱✱✱✱ Off**”, then press the PUSH ENTER button.

- 3** Select one of the remote parties with the **✱✱✱✱** mark.
- 4** Press the CONNECT/DISCONNECT (**☎ / ☎**) button on the Remote Commander, or press the PUSH ENTER button to open the submenu, press the **▲** or **▼** button to select “**✱✱✱✱ Dial**”, then press the PUSH ENTER button.

The system begins dialing the number of the remote party with the ☒ marks. “Dialing” appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks.

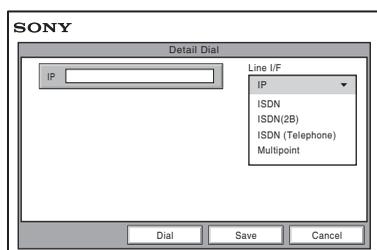
When the system connects to all the parties, the message “Meeting starts!” appears on the screen, and the ON LINE indicator stops blinking and lights.

---

## To call remote parties not registered in the Phone Book

Basic operations are the same as those for starting a point-to-point conference. For details, see “To call a remote party not registered in the Phone Book” on page 79.

- 1 Select “Detail Dial” in the launcher menu to open the Detail Dial menu.
- 2 Select the multipoint connection under “Line I/F”.



- 3 Set up the line interface of the remote parties.

**When PCSA-M3G70 H.323 MCU software (for LAN) is installed**

Select “IP”, and enter the IP addresses of all the parties for the multipoint videoconference in text boxes A to E.

**When PCSA-M0G70 H.320 MCU software (for ISDN) is installed**

Select “ISDN” or “ISDN (Telephone)”, and enter the line numbers or phone numbers of all the parties for the multipoint videoconference in text boxes A to E.

**When both PCSA-M3G70 H.323 MCU software (for LAN) and PCSA-M0G70 H.320 MCU software (for ISDN) are installed**

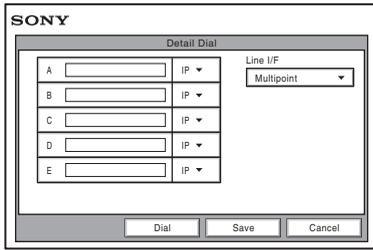
Select Multipoint and a drop-down list is displayed to the right of text boxes A to E.

When using a LAN, enter the IP address, and select “IP” from the drop-down list.

When using ISDN, enter the line number, and select “ISDN” from the drop-down list.

When using ISDN (Telephone), enter the telephone number, and select “ISDN (Telephone)” from the drop-down list.

Enter all the parties for the multipoint videoconference.



*For details on the setups, see step 3 in “To call a remote party not registered in the Phone Book” on page 79.*

- 4** Select “Dial”, and press the PUSH ENTER button on the Remote Commander. You can also press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

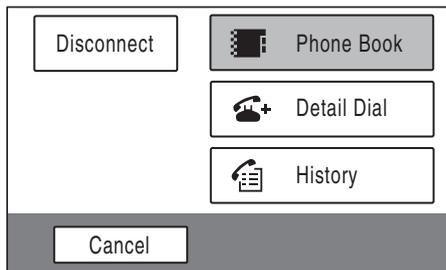
The system begins dialing the numbers selected in step 3. “Dialing” appears on the monitor screen, and the ON LINE indicator (blue) on the Communication Terminal blinks.

When the system connects to all the remote parties, the message “Meeting starts!” appears on the screen, and the ON LINE indicator stops blinking and lights.

---

### To call additional remote parties

After starting communication with the remote party selected first, press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander to open the submenu.



Perform steps 1 through 4 of the procedure shown in “To call remote parties by selecting from the Phone Book” on page 176 or steps 1 through 4 of the procedure in “To call remote parties not registered in the Phone Book” on page 178 depending on the registration status of each remote party.

---

## If some points are not connected

The following dialog appears. Select the desired item.

Some Positions were not connected.					
Status	A	B	C	D	E
	<input type="checkbox"/>				
Cause Code				XX	YY

Start Meeting

Disconnect All      Redial

**Start Meeting:** Starts a conference with remote parties connected.

**Disconnect All:** Cancels all the connections and restores the launcher menu.

**Redial:** Redials the numbers of the points that you failed to connect.

## Receiving a Call from a Remote Party

Operations are the same as those for a point-to-point conference.

*For details, see "Receiving a Call from a Remote Party" on page 87.*

# Using the Display Control

During a multipoint videoconference with the MCU software installed in the communication Terminal you can control the following operations.

## What is “Broadcast Mode”?

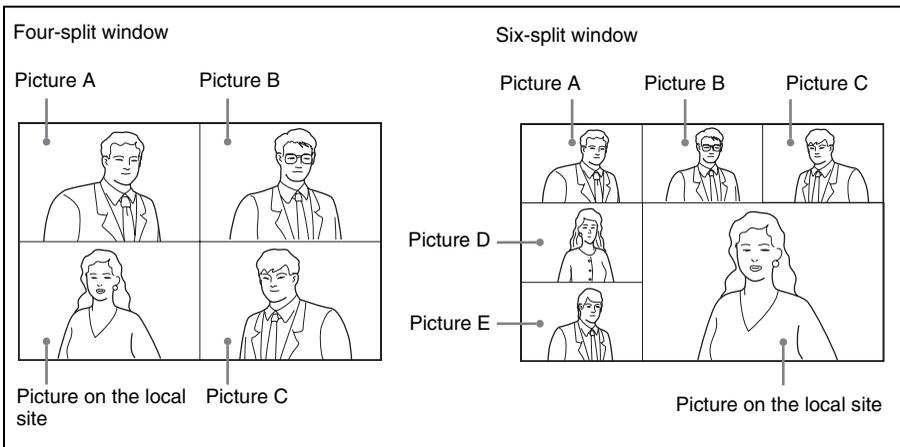
You can use the “Split”, “Split (Fixed)”, “Voice Activate” and “Broadcast” modes.

### Split mode

This mode allows display of the pictures from the connected remote terminals and the picture of the local terminal by splitting the monitor screen.

The display is split into six, regardless of the number of terminals. You can also use “Automatic” to split the screen into four or six depending on the number of terminals. When there are up to three terminals, the display is automatically split into four. When there are four or five terminals, the display is automatically split into six.

Pictures A to C or A to E appear in connection order.



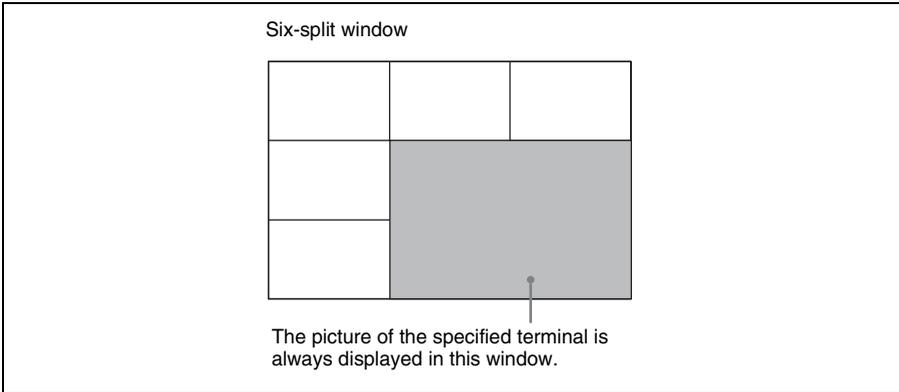
### Notes

- When the six-split window is displayed, the system detects the terminal including the loudest sound among all the terminals and displays the picture of that terminal in the lower right window. The picture on the local site is then displayed in the window where the picture of the detected terminal was displayed.
- If you switch the broadcast mode from Split mode to Voice Activate mode in which a picture of a specified terminal is shown in full screen during communication, the location of Pictures A to E will be changed when the Split mode is restored.
- When the six-split window is displayed, the picture on the local site is always displayed in the lower right window.
- When your system is in the Split or Split (Fixed) mode, you cannot control the camera on any connected remote terminals.

## Split (Fixed) mode

The pictures from the connected remote terminals and the picture of the local terminal are displayed by splitting the monitor screen as the same manner as those in the split mode.

You can specify a picture among the split windows to fix it in the lower right window for the six-split mode. Pictures other than the specified one will be displayed in the split windows in order of connecting.



## Voice Activate mode

Detects the terminal with the speaker with the loudest voice among the connected terminals, and displays the picture of that terminal in full screen on all the sites. The “V.A” indicator appears when the Voice Activate mode is activated. The  indicator with alphabet showing the terminal of the displayed picture also appears. The  indicator is displayed while the local picture is broadcast.

## Broadcast mode

You can specify the terminal to display the picture of that terminal in full screen on all the sites. The  indicator with alphabet showing the terminal of the displayed picture also appears. The  indicator is displayed while the local picture is broadcast.

## Broadcast Modes and Displayed Windows

The chart described below shows the window displayed on the monitor screen when you select one of the Broadcast Modes. According to the connection status of your system, some modes cannot be selected. In the connection status with no window shown in the chart, the corresponding mode is not available.

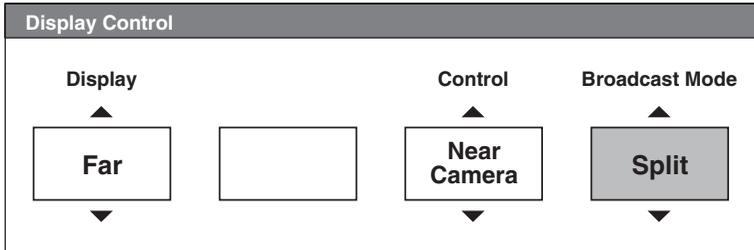


Connection status		Non-cascade connection	Cascade connection	
		LAN connection (See page 163.) ISDN connection (See page 165.) LAN & ISDN connection (See page 167)	LAN cascade connection (See page 164.) LAN&ISDN cascade connection (See page 168.)	
Connecting points (max.)		6	10	
Broadcast Mode	Automatic	1-3 terminals connected	Four-split window 	—
		4-5 terminals connected	Six-split window 	—
	Six-screen mosaic		Six-screen mosaic 	—
	Split (Fixed)	1-3 terminals connected	—	—
		4-5 terminals connected	Six-split window 	—
	Voice Activate		Full screen 	Full screen 
	Broadcast		Full screen 	—

## Switching the Broadcast Mode

At the beginning of the conference, the mode set for “Broadcast Mode” on page 4 of the Communication Setup menu is applied. You can change the mode during communication.

- 1 Press the FAR/NEAR button on the Remote Commander.  
The Display Control menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button on the Remote Commander to select “Broadcast Mode”, then press the PUSH ENTER button.



**Split:** Selects the Split mode.

**Split (A Fixed):** Specifies the picture of the terminal connected first to fix in the Split (Fixed) mode.

**Split (B Fixed):** Specifies the picture of the terminal connected second to fix in the Split (Fixed) mode.

**Split (C Fixed):** Specifies the picture of the terminal connected third to fix in the Split (Fixed) mode.

**Split (D Fixed):** Specifies the picture of the terminal connected fourth to fix in the Split (Fixed) mode.

**Split (E Fixed):** Specifies the picture of the terminal connected fifth to fix in the Split (Fixed) mode.

**Split (Near End Fixed):** Fixes the local picture in the Split (Fixed) mode.

**Voice Activate:** Selects the Voice Activate mode.

**Self Broadcast:** Broadcasts the near end (local) party in the Broadcast mode.

**A Broadcast:** Broadcasts the picture of the terminal connected first in the Broadcast mode.

**B Broadcast:** Broadcasts the picture of the terminal connected second in the Broadcast mode.

**C Broadcast:** Broadcasts the picture of the terminal connected third in the Broadcast mode.

**D Broadcast:** Broadcasts the picture of the terminal connected fourth in the Broadcast mode.

**E Broadcast:** Broadcasts the picture of the terminal connected fifth in the Broadcast mode.

**Stop Broadcast:** Stops broadcasting in the Broadcast Mode.

---

## To display the local picture in the Voice Activate mode

You can display the local picture only on your monitor screen while the broadcast mode remains in Voice Activate mode.

- 1 Press the FAR/NEAR button on the Remote Commander.  
The Display Control menu appears.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Near” under “Display”, then press the PUSH ENTER button.  
The local picture appears on your monitor screen.

## To restore the Voice Activate mode

Press the FAR/NEAR button on the Remote Commander again, and select “Far” under “Display”.

## Receiving the Broadcast Requested From Any Other Terminal

When you receive “Self Broadcast” command from one of the terminals connected, the picture of that terminal is broadcast in full screen.

When you receive “Stop Broadcast” command from one of the terminals connected, the system returns to the previous mode.

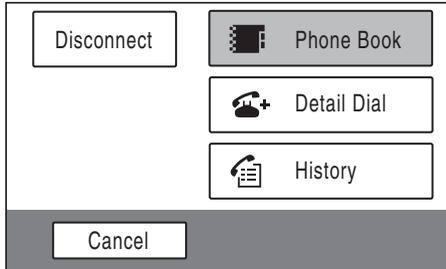
### Notes

- If you have received “Self Broadcast” command from another terminal, the operation above will not be carried out.
- When you use a cascade connection, the Video Communication System supports the Voice Activate mode only.

# Ending the Multipoint Videoconference

- 1 Press the CONNECT/DISCONNECT (  /  ) button on the Remote Commander.

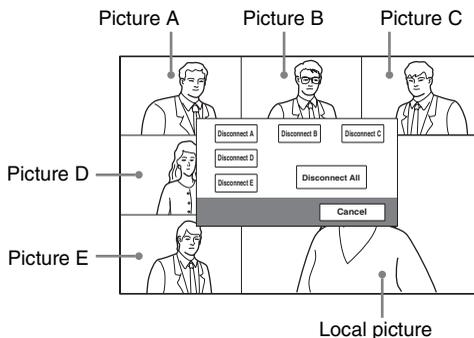
The following submenu appears.



- 2 Use the , ,  or  button to select “Disconnect”, then press the PUSH ENTER button.

The screen changes to the split window screen and the following menu appears. The location of the pictures in the split windows A to E (or A to C) is restored to that when the terminals were connected.

You can display the terminal names in this window if you set “Display Terminal Name” to “On” in the Multipoint Setup menu.



- 3 Use the , ,  or  button to select the terminal to be disconnected, then press the PUSH ENTER button.

**Disconnect A:** Disconnects the terminal connected first.

**Disconnect B:** Disconnects the terminal connected second.

**Disconnect C:** Disconnects the terminal connected third.

**Disconnect D:** Disconnects the terminal connected fourth.

**Disconnect E:** Disconnects the terminal connected fifth.

**Disconnect All:** Disconnects all the terminals.

The selected terminal is disconnected.

You can disconnect all the terminals by pressing the CONNECT/DISCONNECT (  /  ) button again.

## To cancel the disconnection

Select “Cancel” in step 3, then press the PUSH ENTER button.

---

# Notes on Secondary Terminals

## When a terminal whose video mode is QCIF standard only

The system does not send video to the QCIF terminal.



If there is a terminal that is not adequate for the settings set by this system, that terminal is called the secondary terminal.

Communication capabilities between the secondary terminal and this system are shown below.

- Sending/receiving audio
- Receiving video from the secondary terminal
- Disables transmission of video to the secondary terminal

*For details on the secondary terminal, see the glossary on page 224.*

### When a normal phone is connected

The audio mode of the other terminals is not affected if a normal phone is connected or disconnected any time.

### When terminals with “Far End Camera Control” set to “On” and “Off” are mixed

As the bit rate of video signals differs depending on the setting of “Far End Camera Control”, the picture is not displayed on some terminals.

### When a 56K network is mixed among the terminals if the conference is held via 64K network

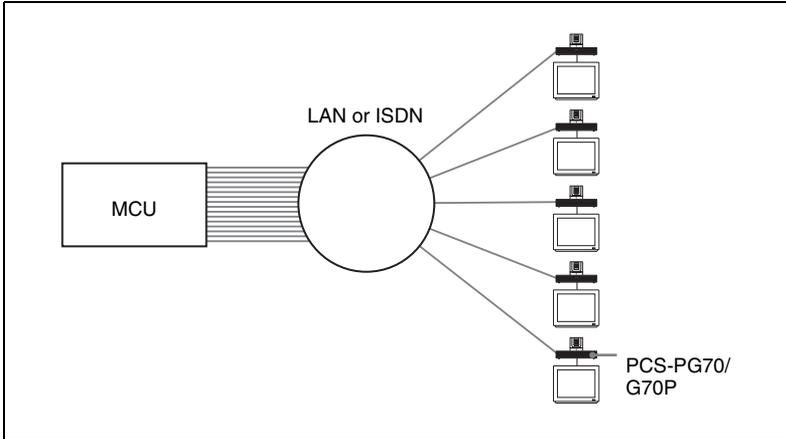
The conference automatically changes to that via 56 K network. Terminals that cannot change to that network are regarded as secondary terminals, and the transmission of video is not available.

### When a terminal with different audio mode is connected and its video bit rate is different

The conference is conducted in the video mode according to the terminal with the lowest video bit rate. A terminal that cannot fit this rate is regarded as a secondary terminal, and the transmission of video is not available.

# Connecting the External MCU

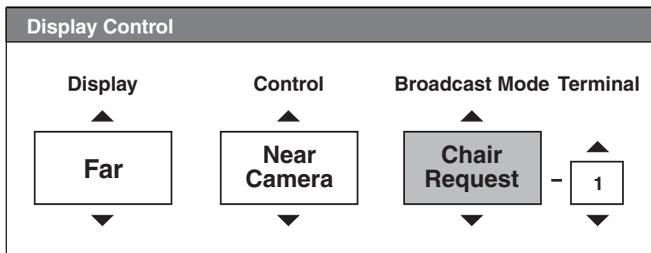
Connecting the external MCU (Multipoint Control Unit) enables conduct of a multipoint videoconference unless the MCU software is installed into the Communication Terminal.



## Activating the Chair Control

If the MCU for the ISDN connection is equipped with the chair control function, the chair control can be activated for up to 99 terminals connected. The chair control mode allows you to specify any terminal to display on the monitor screen, to broadcast the specified picture to all the terminals, or to broadcast the local picture to all the terminals.

- 1 Press the FAR/NEAR button on the Remote Commander.  
The Display Control menu opens.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Chair Request” under “Broadcast Mode”.



- 3 Press the PUSH ENTER button on the Remote Commander.  
The chair control is activated and you can control up to 99 terminals. The chair control feature is canceled if you set “Broadcast Mode” to “Chair Release”.

**Note**

When you operate incorrectly, the message “MCU operation rejected.” will appear on the monitor screen.

---

## Displaying the picture of the selected terminal

- 1 Open the Display Control menu.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Receive” under “Broadcast Mode”.
- 3 Use the **↑**, **↓**, **←** or **→** button to select the number of the terminal you want to view in the box under “Terminal”, then press the PUSH ENTER button.  
The picture of the selected terminal is displayed on the local screen.

**Notes**

- When no terminal is selected, the picture of the smallest terminal number will be displayed.
- The terminal number is assigned to a terminal based on the information on each terminal obtained from the MCU.

---

## To broadcast the selected picture to all terminals

- 1 Open the Display Control menu.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Broadcast” under “Broadcast Mode”.
- 3 Use the **↑**, **↓**, **←** or **→** button to select the number of the terminal you want to broadcast in the box under “Terminal”, then press the PUSH ENTER button.  
The picture of the selected terminal is displayed on the local screen and is broadcast to all terminals.

---

## To broadcast a local picture to all terminals

- 1 Open the Display Control menu.
- 2 Use the **↑**, **↓**, **←** or **→** button to select “Broadcast” under “Broadcast Mode”.
- 3 Use the **↑**, **↓**, **←** or **→** button to display “0” in the box under “Terminal”, then press the PUSH ENTER button.  
The local picture is broadcast to all terminals. The  indicator is shown on the monitor screen.

---

## Exiting the chair control

- 1** Open the Display Control menu.
- 2** Use the **↑**, **↓**, **←** or **→** button to select “Chair Release” under “Broadcast Mode”.

The chair control is not available for the local party.

# Multipoint Attributes

Number	Attribute	Value (H.320 MCU)	Value (H.323 MCU)
1	Maximum number of terminals that can be connected to a single MCU	5 (6 when including the local terminal)	5 (6 when including the local terminal)
2	Maximum number of concurrent (independent) conferences that can be supported in a single MCU	1	1
3	Maximum number of ports that can be connected to other MCUs	0	1
4.1	Network interfaces at each port	BRI, PRI (T1/E1)	LAN
4.2	Restricted network capability	Restrict_Required	–
5	Transmission rates available at each port	1B, 2B, 4B, 6B (BRI) 1B, 2B, 4B, 6B, 8B, 12B (PRI (T1/E1))	Total rate of all points Max. 4 Mbps
6	Audio Processor	Equipped	Equipped
6.1	mixed/switched noise/echo suppression on “silent” ports	Mixed No	Mixed No
6.2	audio algorithm at each port	G.711, G.728, G.722	G.711, G.728, G.722
7	Video Processor (motion pictures)	Equipped	Equipped
7.1	switched/mixed	Voice activated/four-split/six-split/user control	Voice activated/four-split/six-split/user control
7.2	video algorithm at each port	H.261, H.263, H.264	H.261, H.263, H.264
8	Data Processor	Equipped	Equipped
8.1	data broadcast facility, LSD data broadcast facility, HSD	Equipped No	– –
8.2	MLP Processor	Equipped	–
9	Encryption	No support	Support

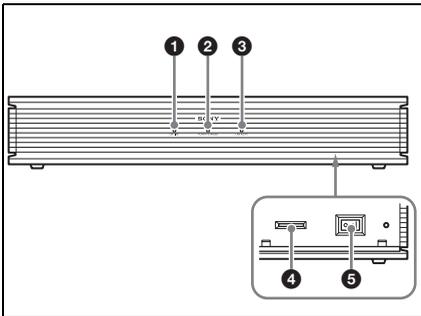
Number	Attribute	Value (H.320 MCU)	Value (H.323 MCU)
10	Method of choosing Selected Communication Mode - SCM	Custom: Number of lines (1B/2B/4B/6B) Audio algorithm (G.711, G.728, G.722, MPEG4 ACC) Auto: Video frame rate (7.5/10/15/30fps) Video encoding mode (CIF/QCIF) Fixed or switched automatically: Video algorithm (H.261 fixed, H.261, H.263 or H.264 switched automatically) Restrict (56K fixed/Auto)	Custom: LAN bandwidth (Total rate of all points, max. 1920 Kbps) Audio algorithm (G.711, G.728, G.722, MPEG4 ACC) Auto: Video frame rate (7.5/10/15/30fps) Video encoding mode (CIF/QCIF) Fixed or switched automatically: Video algorithm (H.261 fixed, H.261, H.263 or H.264 switched automatically)
11	Capability of secondary terminals	Capable of audio sending/receiving and video receiving only. Capable of audio sending/receiving only via a normal phone.	Capable of audio sending/receiving and video receiving only. Capable of audio sending/receiving only via a normal phone.
12	Call setup provision(s)	No call/receive reservation	No call/receive reservation
13	Control capabilities	–	–
13.1	Numbering of terminals Simple chair control using BAS	No No	Equipped No
13.2	MLP facilities [refer to ITU-T T series]	No	No
13.3	H.224 (simplex data)	Equipped	Equipped
14	Cascading	No	Equipped
14.1	Fixed rates (“simple”)	No	No
14.2	Master/Slave	No	Equipped
15	Terminal identification	No	Equipped
16	MBE capability Register necessary information such as the telephone number and index number.	No	–

# Appendix

## Location and Function of Parts and Controls

### PCS-PG70/PG70P Communication Terminal

#### Front/Right side

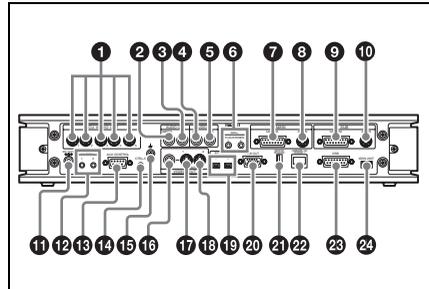


- 1 ON LINE indicator**  
Blinks during dialing or answering and lights in blue when connection is completed. It turns off when the system is disconnected.
- 2 POWER/STANDBY indicator**  
Lights in green when the power switch is set to on (I). Lights in orange when the Communication Terminal is set to standby mode.
- 3 LAN ALERT indicator**  
Lights in yellow when packet error (loss) or link error occurs during communication.
- 4 Memory Stick slot**  
Insert a "Memory Stick" (not supplied) into this slot.

#### 5 Power switch

Turns on/off the Communication Terminal. The power is on when the switch is set to the I side and off when the switch is set to the O side.

#### Rear



- 1 MCU VIDEO OUT (1 - 5) connectors (mini DIN 4-pin)**  
During a multipoint conference, the video signal from each point is output to the corresponding connector.
- 2 AUDIO OUT (MIXED) jack (phono jack)**  
Used when recording the sound to minute a conference. The mixed sounds of a local and remote parties are output from this jack.
- 3 AUDIO OUT jack (phono jack)**  
Connect to the audio input of the TV monitor.
- 4 AUDIO IN AUX jack (phono jack)**  
Connect to the audio output of the optional VCR or audio equipment.
- 5 AUDIO IN LINE jack (phono jack)**  
Used when connecting to the optional CTE-600 Communication Transducer or an external microphone mixer.
- 6 MIC1/MIC2 (PLUG IN POWER) jacks (minijack)**  
Connect to the optional PCS-A1 or PCS-A300 microphone. Power is supplied to the microphone from the Communication Terminal.

**7 MAIN CAMERA connector**

Connect to the TERMINAL connector on the rear of the Camera.

**8 MAIN AUX IN connector (mini DIN 4-pin)**

Connect to the video output of external video equipment.

**9 SUB CAMERA connector**

Connect to the TERMINAL connector on the rear of the secondary camera.

**10 SUB AUX IN jack (mini DIN 7-pin)**

Connect to the video output of external video equipment.

**11 DC 19.5V jack**

Connect the supplied PCS-AC19V6 AC power adaptor.

**12 IR OUT 1/2 jacks**

Connect the supplied IR repeater. Connect the IR repeater for the monitor connected to the VIDEO OUT MONITOR MAIN connector to the IR OUT 1 jack, and the IR repeater for the monitor connected to the VIDEO OUT MONITOR SUB connector to the IR OUT 2 jack.

**13 AUX CONTROL connector (D-sub 9-pin)**

Used for maintenance service.

**14 CTRL-S jack (minijack)**

Connect to the optional Remote Commander Signal Receptor. The remote sensor of the Camera Unit does not operate when this connector is in use.

**15 ⏏ (ground) terminal**

Connect a ground wire.

**16 VIDEO OUT AUX jack (phono jack)**

Connect to the video input of the TV monitor or VCR.

**17 VIDEO OUT MONITOR 1 connector (mini DIN 4-pin)**

Connect to the S-video input on the TV monitor or VCR.

**18 VIDEO OUT MONITOR 2 connector (mini DIN 4-pin)**

Connect to the S-video input on the second TV monitor when the system uses the dual monitor mode.

**19 EC-MIC jacks (1, 2)**

For future expansion. Not used.

**20 RGB OUT connector (D-sub 15-pin)**

Connect to the RGB input of the optional projector or display unit.

**21 WHITE BOARD connector**

Connect to the optional mimio Xi.

**22 100BASE-TX/10BASE-T connector (8-pin modular)**

Used to conduct a conference via a LAN. Connect to a hub using the category 5 cable.

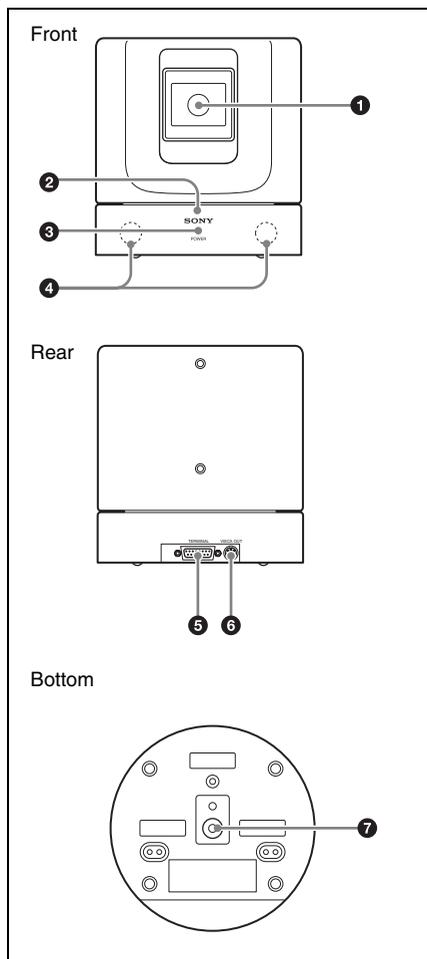
**23 DSB connector (D-sub 15-pin)**

Connect to the TERMINAL connector on the optional PCSA-DSB1S Data Solution Box.

**24 ISDN UNIT connector**

Connect to the TERMINAL connector on the optional ISDN Unit such as PCSA-B384S, PCSA-B768S and PCSA-PRI.

## PCSA-CG70/CG70P Camera Unit (Optional)



### 1 Lens

### 2 Remote sensor

Point the Remote Commander to the sensor when operating this system.

### 3 POWER indicator (green)

Lights when the power switch on the Communication Terminal is set to on and goes out when it is set to off or the terminal is set to standby mode.

### 4 Infrared sensor

Receives the infrared wireless signal from the optional PCS-DS150 Document Stand. The received signal is used as object input.

### 5 TERMINAL connector

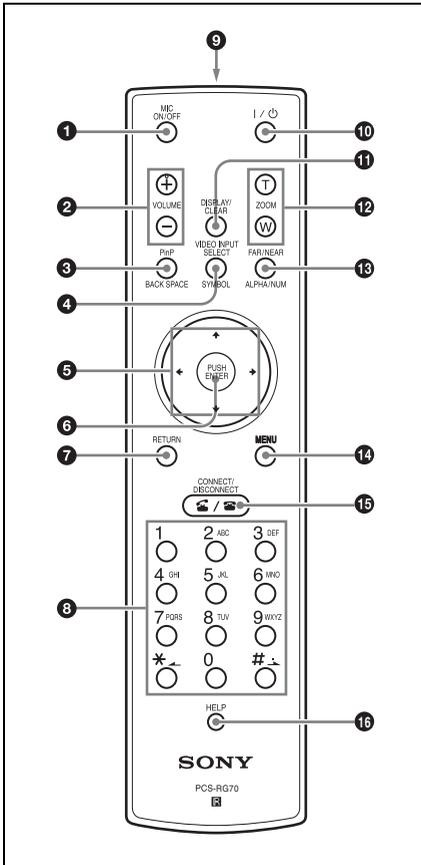
Connect to the CAMERA UNIT connector on the Communication Terminal.

### 6 VISCA OUT connector

### 7 Tripod hole

Use to attach the camera on a tripod.

## PCS-RG70 Remote Commander



You can set for a beep not to sound by pressing the button on the Remote Commander with the Audio Setup menu.

For the setting, see "Audio Setup Menu" on page 50.

### 1 MIC ON/OFF button

Turns off the local sound to be sent to a remote party. To restore the sound, press the button again.

### 2 VOLUME +/- buttons

Adjusts the volume of the sound received from a remote party.  
+ : to increase the volume  
- : to decrease the volume

### 3 PinP (BACK SPACE) button

Displays a window picture when pressed during communication.  
Each time you press this button, the location of the window picture changes. Pressing the button displays the picture in full screen while the Camera menu opens.  
When used for character input, deletes the character you entered last.

### 4 VIDEO INPUT SELECT (SYMBOL) button

Selects the video input signal. Each time you press the button, the input signal switches.  
Used to enter a symbol for character input.

### 5 Arrow buttons (↑/↓/←/→)

Used to select the menu or make various settings in the menu. Also used for camera angle adjustment.

### 6 PUSH ENTER button

Executes the selection or setting in the menu and goes to the next layer.

### 7 RETURN button

Used to return to the previous layer in the menu.

### 8 Number (0-9, #, \*) buttons

Used to enter the letters or numbers of a telephone number, etc.  
Used for focus, brightness and backlight compensation adjustments.

### 9 Battery compartment (rear)

Insert two size AAA (R03) batteries.

**10 I/⏻ (power on/off) button**  
 Sets the Communication Terminal to standby mode when it is turned on.  
 Turns on the Communication Terminal when it is in standby.

**11 DISPLAY (CLEAR) button**  
 Switches the picture displayed on the monitor screen.  
 Deletes a line when used for character input.

**12 ZOOM (T/W) buttons**  
 Zooms in or out.  
**T:** to enlarge the picture  
**W:** to reduce the picture

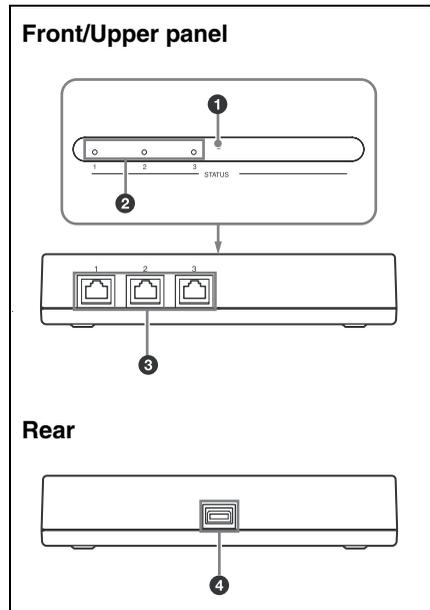
**13 FAR/NEAR (ALPHA/NUM) button**  
 Switches the picture on a local or remote site.  
 Switches the input mode between alphabets and numbers for character input.

**14 MENU button**  
 Used to display a menu.

**15 CONNECT/DISCONNECT (📞 / 📞) button**  
 Used to connect or disconnect a remote party for a conference.

**16 HELP button**  
 Used to show the help guide.

## PCSA-B384S ISDN Unit (Optional)



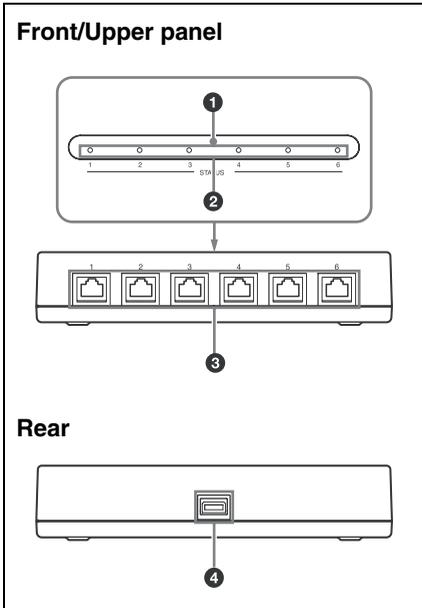
**1 POWER indicator**  
 Lights in orange when power is supplied to the ISDN Unit. When initializing is complete, blinks in green.

**2 STATUS 1-3 indicators**  
 Lights in orange when link synchronization of each ISDN connector is established. Lights in yellow when each ISDN line is connected.

**3 ISDN 1-3 terminals (8-pin modular jack)**  
 Connect to the ISDN lines using the ISDN modular cable.

**4 TERMINAL connector**  
 Connect to the ISDN UNIT connector on the Communication Terminal with the interface cable supplied with the ISDN Unit.

## PCSA-B768S ISDN Unit (Optional)



### 1 POWER indicator

Lights in orange when power is supplied to the ISDN Unit. When initializing is complete, blinks in green.

### 2 STATUS 1-6 indicators

Lights in orange when link synchronization of each ISDN connector is established. Lights in yellow when each ISDN line is connected.

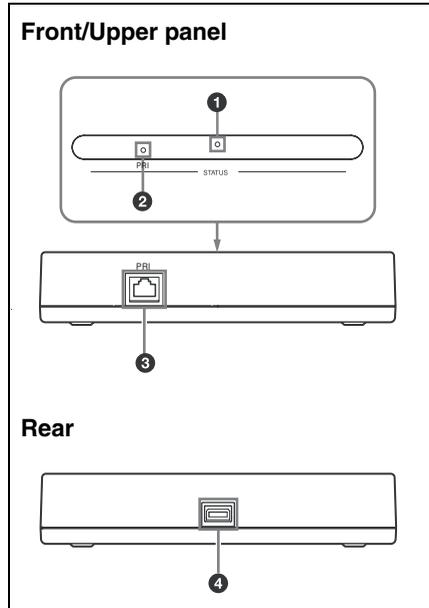
### 3 ISDN 1-6 terminals (8-pin modular jack)

Connect to the ISDN lines using the ISDN modular cable.

### 4 TERMINAL connector

Connect to the ISDN UNIT connector on the Communication Terminal with the interface cable supplied with the ISDN Unit

## PCSA-PRI ISDN Unit (Optional)



### 1 POWER indicators

Lights in orange when power is supplied to the ISDN Unit. When initializing is complete, blinks in green.

### 2 STATUS PRI indicator

Lights in orange when link synchronization of the ISDN connector is established. Lights in yellow when each ISDN line is connected.

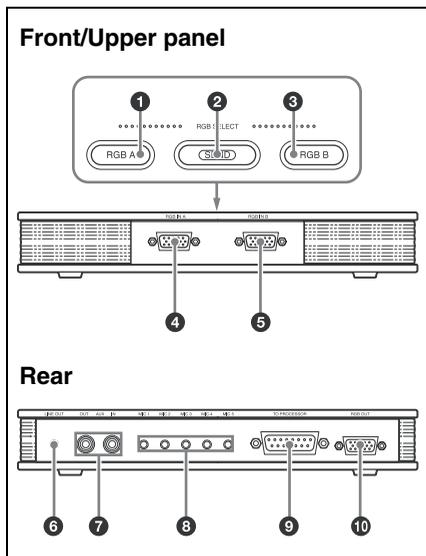
### 3 ISDN PRI terminal (8-pin modular jack)

Connect to the ISDN line using the ISDN modular cable.

### 4 TERMINAL connector

Connect to the ISDN UNIT connector on the Communication Terminal with the interface cable supplied with the ISDN Unit.

## PCSA-DSB1S Data Solution Box (Optional)



### 1 RGB A input select button and indicator

Selects the video input from the video equipment connected to the RGB IN A connector.

### 2 SEND button and indicator

Sends the selected input picture to the Communication Terminal.

### 3 RGB B input select button and indicator

Selects the video input from the video equipment connected to the RGB IN B connector.

### 4 RGB IN A connector (D-sub 15-pin)

Connects to the RGB output connector on a computer, etc.

### 5 RGB IN B connector (D-sub 15-pin)

Connect to the RGB output connector on a computer, etc.

### 6 LINE OUT jack (stereo minijack)

Connect to the audio input jack on the active speaker, etc.  
Outputs monaural sound.

### 7 AUX IN/OUT jacks (phono jack)

Connects to the optional CTE-600 Communication Transducer.

### 8 MIC 1–MIC 5 jacks (minijack)

Connect to the optional PCS-A1 or PCS-A300 microphone.

### 9 TO PROCESSOR connector (D-sub 15-pin)

Connect to the DSB connector on the Communication Terminal using the interface cable supplied with the Data Solution Box.

### 10 RGB OUT connector (D-sub 15-pin)

Outputs the video signal to a projector, TV monitor, etc.

# On-screen Messages

Check the following if a message appears on the TV monitor when operating the Communication Terminal.

Message	Meaning
Incorrect dialing setup.	Make sure the selected entry is correctly registered.
CANNOT COMPLETE CONNECTION (The following code and message appear.)	—
0 Unknown network error:	Try again later.
1 Number does not exist:	Check the number and try again.
2,3,6 Network congestion:	Try again later.
16 Normal disconnection:	(The line has been disconnected normally.)
17 Line is busy:	Try again later.
18,19 System not responding:	Check if the remote system is connected.
20 No such subscriber	Confirm the site number.
21 Call rejected:	Check if the remote system is connected.
22 Called party number changed:	Check the number and try again.
26 Connection restoration request:	Try again later.
27 Remote system out of order:	Check if the remote system is operational.
28 Invalid number entered:	Check the number and try again.
31, 34, 41 – 44, 47 Network not available:	Try again later.
50 Not a Subscriber:	Check the remote party's facility contract.
57,58 Bearer capability not authorized:	Check if "Restrict" is set correctly.
70 Restricted capability:	Set "Restrict" to "56K" and try again.
88 Terminal attribute error:	Check the connection of the remote system.
91, 95 – 102, 111 Protocol error:	Turn off and restart the system and try again.
128 H.221 negotiation timeout:	Turn off and restart the system and try again.
132 Invalid SPID:	Reregister the SPID.
134 Physical link synchronization error:	Check the connection of the ISDN cable.
144, 145 Bonding negotiation timeout:	Turn off and restart the system and try again.
177 LAN connection timeout:	Try again later.
178 LAN connection rejected:	Try again later.
179 DNS error:	Please check DNS.

<b>Message</b>	<b>Meaning</b>
180 Dialing your own number is invalid.	Please check the IP address of the remote party.
181 GateKeeper error.	Please check the IP address of the remote party.
Busy line - Connection not possible.	The telephone line of the remote party is busy and cannot be connected.
Far end inactive	The remote party operates the menu, and the still picture cannot be sent.
System not responding.	Check if the remote system is connected.
Close this menu to connect line	Close the menu when starting a conference.
Cannot establish all connections	Check the telephone number of the remote party.
Connection time out.	Wait for a while and then try dialing again.
Communication error	Wait for a while and then try dialing again.
Configuration error	Wait for a while and then try dialing again.
MCU operation rejected.	The function is not available when external MCU is connected.
Corrupted data stream-Terminating connection.	A signal error occurred. The line connections are compelled to be disconnected.
Memory full	The memory capacity of the "Memory Stick" is full.
Input title	Input an index title.
Operation disabled	—
Wrong password	The password is not correct. Enter the correct password.
01H LAN configuration error (IP address)	The IP address is not proper.
02H LAN configuration error (Netmask)	The netmask is not proper.
03H LAN configuration error (MAC address)	The MAC address is not proper.
04H LAN configuration error (DHCP error)	The IP address and netmask cannot be obtained.
05H Gatekeeper registration error	The setting of the Gatekeeper is not proper.
06H SNMP error	SNMP is not set properly.
LAN configuration error (Gatekeeper)	The setting of the Gatekeeper is not proper.
LAN configuration error (SNMP error)	The setting of the SNMP is not proper.
LAN configuration error	The settings in the LAN Setup menu are not proper.
Memory Stick error.	The format of the "Memory Stick" is wrong.
General error.	—

<b>Message</b>	<b>Meaning</b>
No Memory Stick.	Insert a "Memory Stick".
Memory Stick write-protected.	Release the lock of the erasure prevention switch on the "Memory Stick".
Memory full.	The data has been saved in the "Memory Stick" to its full capacity.
Memory Stick file error.	The file format of the "Memory Stick" is incorrect or abnormal.
Memory Stick file decode error.	Decoding the JPEG file has failed.
Memory Stick size error.	The file size of the "Memory Stick" is not acceptable.
There are no images recorded in the Memory Stick.	No images are recorded in the "Memory Stick".
File error.	There is an abnormality in the file.
File size error.	The file size is not acceptable.
File decode error.	Decoding the JPEG file has failed.
Format error.	The "Memory Stick" cannot be formatted.
Settings cannot be changed during communication.	Change the setting after disconnecting the system.
The still images were not sent.	Transmission of the still images has failed.
The presentation screen can not be sent.	Transmission of the RGB data from the Data Solution Box has failed.
Multipoint connection to this participant was not made.	Multipoint connection with this party is not available.
The LAN cannot be used.	You cannot use the LAN connection.
The DATA SOLUTION BOX cannot be used.	You cannot use the Data Solution Box connected.
Unknown device is connected.	An unacceptable device is connected to the WHITE BOARD connector.
ISDN UNIT is not available.	Communication with the ISDN unit cannot be made.
No more cascade connections are enabled.	Installing the MCU software into three or more Communication Terminals does not allow cascade connection.
Cascade connection via ISDN is not available.	You cannot use cascade connection when your system is connected via ISDN.
Cannot send RGB data while receiving.	While you are receiving an RGB picture from another terminal, you cannot send an RGB picture from equipment connected to the Data Solution Box.
A still image is being sent or received. The Data Solution Box is not usable.	While you are sending or receiving a still image, you cannot send or receive the RGB picture via the Data Solution Box.

<b>Message</b>	<b>Meaning</b>
Connection with the Data Solution Box is not correct. Please reset the system.	Connection between the Communication Terminal and the Data Solution Box is not correct. Turn off the Communication Terminal, then turn it on again.
Fan in the Data Solution Box does not work properly. The Data Solution Box is not usable.	The fan equipped with the Data Solution Box is not working properly. You cannot use the Data Solution Box.
The Whiteboard cannot be used.	The whiteboard can be used for a videoconference only between PCS-G70/G70P systems.
Battery in the stylus could be weak. Replace the battery.	The battery in the stylus for the whiteboard is low. Replace the battery in the stylus with a new one.
The far-end system is not compatible with the encryption feature.	When conducting an encrypted videoconference via LAN, you cannot connect to the system that is not compatible with the encryption via LAN feature.
The encryption feature on a far-end system is disabled.	When conducting an encrypted videoconference via LAN, you cannot connect to the system if the encryption via LAN feature is deactivated.
The encryption feature on a far-end system is enabled.	When conducting a daily conference, you cannot connect to the system if the encryption via LAN feature is activated.
The entered password for the encryption feature is not correct.	Enter the correct password.
The encrypted videoconference is not available if any terminal is connected via ISDN.	While the videoconference is held via the ISDN connection, you cannot connect any terminal via the LAN connection if your encryption via LAN feature is activated.
At least thirteen characters are required as a password for the encryption feature.	You have to enter 13 to 20 characters, numbers or symbols as the password required for conduct of an encrypted videoconference via LAN.
PPPoE connection has failed.	LAN connection has failed. Check the PPPoE setting.
PPPoE server admission has failed.	Access to a network is not admitted by the PPPoE server.
Connection to the PPPoE server fails.	Check the DNS server setting.
Communication via LAN is not available. Check the LAN cable.	The connection to a LAN cannot be made. Check the LAN cable.
An IP address is not obtained via DHCP.	Check the DHCP setting.
Please dial by entering the IP address.	Be sure to enter the IP address of the remote party when dialing.
Reference to DNS has failed.	The LAN connection has failed as you entered the user name when using the domain name server. Enter the IP address.
Your system attempts to connect to other equipment than a videoconferencing system.	Connect your system to the videoconferencing system.



<b>Message</b>	<b>Meaning</b>
Some trouble occurs during connection. Connection has failed.	Try to connect again.
Check the information registered to the gatekeeper.	When you use the gatekeeper mode, the registered information on gatekeeper appears in page 2/2 of the LAN Setup menu.
Connection has been rejected as the data exceeds the bandwidth of a gatekeeper.	Connection has failed as the data exceeds the bandwidth of a gatekeeper.
Gatekeeper does not respond.	Check the gatekeeper setting.
The ISDN Unit is not connected.	The ISDN Unit is not connected.
The ISDN line is invalid. Check the ISDN connection.	Check the ISDN connection.
ISDN lines are not connected correctly.	Check the ISDN connection.
Check the ISDN configuration.	Check the settings in the ISDN Setup menu.
A telephone number of a remote party has not been entered.	Enter the telephone number of the remote party.
The entered telephone number of a remote party is not correct.	Enter the correct telephone number of the remote party.
Problems connecting to a router or an ISDN connection.	The ISDN connection has not been made. There may be some problem in a router or in the ISDN connection on the remote party.
Line is busy. Try to dial again later.	Line is busy. Wait for a while and try dialing again.
A line has not been completely connected. The far-end videoconferencing system did not respond to our calling.	The videoconferencing system does not respond to the calling, and the connection has failed.
The terminal with the specified IP address does not exist, or the system is turned off.	The connection to the remote party cannot be made. You may specify a different IP address from that of the terminal or the system of the remote party is turned off.
Connection rejected.	The connection to the remote party has failed.
Call not responded.	The remote party does not respond to your calling.
H.245 Error.	Error occurs while connecting to the multiple points via LAN.
The remote terminal may not be compatible with the bonding function.	The bonding function may not be used. The remote terminal may not be equipped with this function.
The ISDN telephone number of the local party is not correctly set. Set it correctly.	Set your ISDN telephone number correctly.
The ISDN telephone number of the far-end party may be configured incorrectly.	The ISDN telephone number of the remote party may not be set correctly.
6B connection is available.	Connection has been made via 6B. More channel connection than 6B is not available.

The following messages indicate the state of the system. No action is required.

<b>Message</b>	<b>Meaning</b>
Meeting starts!	Connection with the remote party has been completed, and you can now start a conference.
Starting connection.	After receiving a call from the remote party the system starts connecting.
Meeting ends.	Operations for ending the conference have been completed.
Please wait.	The data is being saved.
Installation completed.	Installing the software is completed.
The still image has been sent.	A still picture has been transmitted to the remote party.
Still image transmission cancelled.	Transmission of a still image has been cancelled.
Preset 1 (-6) selected.	The camera angle and zoom setting has been changed to that registered in Preset number 1 (-6).
Still image saved to Memory Stick.	The still image has been saved to the "Memory Stick".
Registered to Preset number 1 (-6).	The camera angle and zoom setting has been registered in Preset number 1 (-6).
Terminal A (or B, C, D, E) has disconnected.	During a multipoint videoconference the remote party A (or B, C, D, E) has been disconnected.
Site A (or B, C, D, E) has disconnected.	During a multipoint videoconference the remote party A (or B, C, D, E) has ended the conference.
The still image from the object input has been transmitted.	The still image input from the Document Stand has been transmitted.
The slide show is over.	The slide show has been ended.
The 1st (-5th) position has been selected.	The terminal on the 1st (-5th) site for a multipoint videoconference has been selected from the Phone Book.
The terminal participated in the conference.	The remote party of the displayed terminal participates in the multipoint videoconference.
The terminal has dropped out of the conference.	The displayed terminal ends the multipoint videoconference.
Viewing the terminal. [Terminal name]	The picture of the displayed terminal can be seen on the screen.
Now upgrading. Wait for a while. Be sure not to turn off your system while upgrading.	The software is now upgrading. Be sure not to turn off the Communication Terminal until the upgrading is complete. Doing so may cause malfunction of the system.
Cascade connection is complete.	Cascade connection with the terminals has been completed.
Cascade connection has been made. Split mode is not available.	Cascade connection with the terminals has been made. You cannot display split windows.
Use of the Private Phone Book is available.	The "Memory Stick" in which the Private Phone Book is registered has been inserted into the Communication Terminal. You can use the Private Phone Book.



Message	Meaning
Use of the Private Phone Book is not available.	The “Memory Stick” in which the Private Phone Book is registered has been removed from the Communication Terminal. You cannot use the Private Phone Book.
The system is connecting to a LAN via PPPoE.	The Video Communication System is connecting to a LAN using PPPoE.

# Troubleshooting

If the Communication Terminal does not function correctly, check the following.

Symptom	Cause	Solution
The power is not turned on.	The power switch is not set to on.	Set the power switch to on (I) (page 27).
	The batteries in the Remote Commander are low or dead.	Replace the batteries with new ones (page 25).
Three indicators on the front of the Communication Terminal blink.	The fan inside the terminal stops.	Turn off the system immediately and consult with Sony dealer.
No sound or the volume is very low.	The volume of the system is too low.	Adjust the sound volume by pressing the VOLUME +/- buttons on the Remote Commander (page 31).
	The volume of the TV monitor is too low.	Adjust the volume of the TV monitor.
	The microphone on the remote party is turned off.	Ask the remote party to turn on the microphone.
	"Mic Select" is not set properly.	Set up "Mic Select" properly according to the microphone to be used (page 50).
	Audio input is not selected properly.	Set up "Input Select" properly (page 50).
	The microphone or external equipment is not connected correctly.	Check the connection (pages 129, 134 and 143).
Picture is blurred.	Manual focus is selected but picture remains blurred.	Adjust the focus (page 95).
	When auto focus is selected, the background is too bright, contrast is too high, or the background or the participants' clothes contain fine line patterns.	Select manual focus and adjust manually (page 96).



<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
No picture.	The selected picture source is not tuned on.	Turn on the selected video equipment.
	Video input is not selected properly.	Select the video input with the VIDEO INPUT SELECT button (page 100).
	The selected picture source is not correctly connected to the system.	Check the connections (page 134).
	A voice meeting is held.	This is not a malfunction.
	Movement of the camera is prevented.	Turn off the Communication Terminal, then turn it on again.
No connection.	Wrong number was dialed.	Check the entered number.
	The setting of "Line I/F" is not correct.	Set "Line I/F" to correct interface referring to "Calling a Remote Party" (page 78).
	The registered items in the Phone Book are not correct.	Register the party correctly referring to "Registering a Remote Party – Phone Book" (page 68).

Symptom	Cause	Solution
No connection.	Some of the system settings are not correct.	Set the system settings correctly referring to "Registering Local Information" (page 43).
	The IP address and network mask are not set correctly (when using LAN).	Ask the system administrator to set them correctly (page 59).
	The LAN or ISDN cable is disconnected.	Connect correctly (pages 23, 24).
	The LAN or ISDN cable is connected to the incorrect connector.	Connect correctly (pages 23, 24).
	The LAN or ISDN cable is down.	Replace the cable with a new one.
	The cable exclusively designed for the ISDN connection is used for LAN connection (when using LAN).	Use the cable for LAN connection.
	Incorrect type of cable (cross or straight cable) is used for the LAN or ISDN connection.	Use the correct type of cable.
	The DSU is turned off.	Turn on the DSU.
	If you disconnect the communication with an abnormal procedure, e.g., unplugging an ISDN cable or turning off the system during communication, you may not connect to the ISDN line for a while (when using ISDN).	Turn off the power of the system and wait for a few minutes before turning it on again.
	If you repeat plugging/unplugging or turning on/off, you may not connect to the network for a while (when using LAN).	Turn off the power of the system and wait for a few minutes before turning it on again.
	LAN connection timeout (when using LAN).	Try again later.
	Packet for videoconferencing is not acceptable under the current LAN environment (when using LAN).	Consult with the system administrator so that the packet for videoconferencing becomes acceptable under your LAN environment.
	The remote terminal is not turned on.	Ask the remote party to turn on the terminal.
	It takes a long time for the remote party to be able to answer from the standby mode.	Ask the remote party to cancel the standby mode.
The remote party is in communication with another party.	Call the remote party after they end the communication with another party.	



<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
No connection.	Answering the call is not permitted by the remote terminal as it is operating for setups, etc.	Ask the remote party to permit answering a call.
	The remote terminal is not set to auto answer mode.	Ask the remote party to set the terminal to auto answer mode, or to answer a call manually.
	The ISDN telephone numbers are not set up in the remote terminal (when using bonding).	Ask the remote party to set up "Area Code" and "Local Number" in the ISDN Setup menu correctly (page 64).
	The eighth digit and up of the ISDN telephone numbers are not the same when connecting using bonding (when the remote party uses the videoconference system of an older model such as the PCS-1600).	Connect without using bonding, or use the ISDN telephone numbers that are the same in the eighth digit and up.
	There is some problem with the remote terminal.	Try to dial the number of another terminal.
	A message appears on the screen.	See "On-screen Messages" (page 200).
Still pictures or the Phone Book cannot be saved to the "Memory Stick."	The write-protect tab on the "Memory Stick" is set to LOCK.	Release the lock.
	The "Memory Stick" has already been recorded to full capacity.	Use another "Memory Stick."

# Specifications

## PCS-PG70/PG70P Communication Terminal

This unit is compliant with ITU-T Recommendations H.320 and H.323.

### Motion picture

#### Operating bandwidth

- 64 Kbps to 4 Mbps (standard, LAN connection)
- 56 Kbps to 768 Kbps (when installing the PCSA-B768S, ISDN connection)
- 56 Kbps to 384 Kbps (when installing the PCSA-B384S, ISDN connection)
- 56 Kbps to 1472 Kbps (T1)
- 56 Kbps to 1920 Kbps (E1) (when installing the PCSA-PRI, ISDN connection)

#### Coding

- H.261/H.263/H.263+/H.263++/H.263 4CIF/H.264/Interlaced SIF (ITU-T Recommendation)/Interlaced SIF (H.264, H.263)
- MPEG4 Simple Profile (when using LAN)

#### Picture elements

- CIF: 352 pixels × 288 lines
- QCIF: 176 pixels × 144 lines

#### Color system

- NTSC (PCS-PG70)
- PAL (PCS-PG70P)
- Capable of connection between both color systems

### Still Picture

#### Pixels

- 704 pixels × 480 lines (PCS-PG70)
- 704 pixels × 576 lines (PCS-PG70P)

#### Encoding

- H.261 (ITU-T Recommendation) Annex. D (4CIF)
- H.263 (special format of this system)

### Sound

#### Bandwidth

- 14 kHz (MPEG4 Audio)
- 7 kHz (G.722/G.722.1 compliant with ITU-T Recommendation)

- 3.4 kHz (G.711/G.723.1/G.728/G.729 compliant with ITU-T Recommendation)

#### Transmission rate

- 56 Kbps, 64 Kbps (G.711 compliant with ITU-T Recommendation)
- 48 Kbps, 56 Kbps, 64 Kbps (G.722 compliant with ITU-T Recommendation)
- 64 Kbps, 96 Kbps (MPEG4 Audio) (when using LAN)
- 24 Kbps, 32 Kbps (G.722.1 compliant with ITU-T Recommendation) (when using LAN)
- 16 Kbps (G.728 compliant with ITU-T Recommendation)
- 8 Kbps (G.729 compliant with ITU-T Recommendation) (when using LAN)
- 5.3 Kbps, 6.3 Kbps (G.723.1 compliant with ITU-T Recommendation) (when using LAN)
- 48 Kbps (when using ISDN)

### Network

#### Multiplexing

- Video, audio, data

#### Frame format

- H.221 (compliant with ITU-T Recommendation)

#### Interface

- LAN (standard), 64 Kbps to 4 Mbps
- ISDN (BRI), up to 3 lines (when installing the PCSA-B384S) up to 6 lines (when installing the PCSA-B768S)
- ISDN (PRI) T1 or E1 (when installing the PCSA-PRI)

#### Data transmission rate

- LSD 1.2 Kbps, 4.8 Kbps, 6.4 Kbps
- MLP 6.4 Kbps, 24 Kbps, 32 Kbps
- HMLP 62.4 Kbps, 64 Kbps, 128 Kbps

#### LAN protocol supported

- HTTP
- FTP
- Telnet
- RTP/RTCP
- TCP/UDP
- SNMP

### Remote control

- Far end camera control

	H.281 (compliant with ITU-T Recommendation)
Data transfer	T.120 (compliant with ITU-T Recommendation)

## General

Power requirements	19.5 V
Power consumption	5 A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	420 × 70 × 256 mm (W × H × D) (16 1/2 × 2 3/4 × 10 1/16 in.) (not including projections)
Mass	Approx. 5.3 kg (11 lb. 11 oz.)
Supplied accessories	Remote Commander PCS-RG70 (1) Size AAA (R03) batteries for Remote Commander (2) IR repeater (2) S-video cable (1.5 m) (4.9 ft) (1) Audio cable (1 m) (3.3 ft) (1) AC adaptor PCS-AC19V6 (1) Power cord (1) 21-pin adaptor (1) (PCS-PG70P only) CD-ROM (1) Operation guide (1) Connection Sheet (1) Quick connection guide (1) Warranty booklet (1)

## PCSA-CG70/CG70P Camera Unit

Video signal	NTSC color, EIA standards (PCSA-CG70) PAL color, CCIR standards (PCSA-CG70P)
Image device	1/4 type CCD (Charge Coupled Device) Approx. 410 000 pixels (Effective: approx. 380 000 pixels) (PCSA-CG70)

	Approx. 470 000 pixels (Effective: approx. 440 000 pixels) (PCSA-CG70P)
Lens	f = 3.1 to 31 mm, F 1.8 to 2.9, Horizontal angle 6.6° to 65°
Focal distance	100 (WIDE) to 600 (TELE) mm
Minimum illumination	3.5 lux at F 1.8/50 IRE
Illumination range	3.5 lux to 100 000 lux
Horizontal resolution	470 TV lines (PCSA-CG70) 450 TV lines (PCSA-CG70P)
Pan/tilt action	Horizontal ±100° Vertical ±25°
Dimension	130 × 141 × 130 mm (W × H × D) (5 1/8 × 5 9/16 × 5 1/8 in.) (not including projections)
Mass	Approx. 1.0 kg (2 lb. 3 oz.)
Supplied accessory	Camera cable (3m) (9.8 ft)

## PCS-RG70 Remote Commander

Signal format	Infrared SIRCS
Control	DC 3V using two size AAA (R03) batteries
Dimensions	47 × 43 × 195 mm (W × H × D) (1 7/8 × 1 11/16 × 7 3/8 in.) (not including projections)
Mass	Approx. 180 g (6 oz.) (including batteries)

## PCS-AC19V6 AC Adaptor

Power requirements	100 to 240V AC, 50/60 Hz, 1.6 A to 0.7 A
Output	19.5 V, 6.15A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	160 × 80 × 38 mm (W × H × D) (6 3/16 × 3 1/8 × 1 1/2 in.)
Mass	Approx. 570 g (20 oz.)

## PCS-A1 Microphone (Optional)

Bandwidth	13 kHz
Directional characteristic	Omnidirectional
Dimensions	74 × 16 × 93 mm (W × H × D) (3 × <sup>21</sup> / <sub>32</sub> × 3 <sup>3</sup> / <sub>4</sub> in.)
Mass	Approx. 170 g (6 oz.)
Power	Plug in power

## PCS-A300 Microphone (Optional)

Bandwidth	13 kHz
Directional characteristic	Unidirectional
Dimension	68 × 16 × 96 mm (W × H × D) (2 <sup>3</sup> / <sub>4</sub> × <sup>21</sup> / <sub>32</sub> × 3 <sup>7</sup> / <sub>8</sub> in.)
Mass	Approx. 200 g (7 oz.)
Power	Plug in power

## PCSA-B384S ISDN Unit (Optional)

Power requirements	19.5 V
Power consumption	0.3 A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	166 × 34 × 128 mm (W × H × D) (6 <sup>9</sup> / <sub>16</sub> × 1 <sup>3</sup> / <sub>8</sub> × 5 <sup>1</sup> / <sub>16</sub> in.) (not including projections)
Mass	Approx. 400 g (14 oz.)
Supplied accessories	Interface cable (5 m) (16.4 ft) (1) Operating Instructions (1) Warranty booklet (1)

## PCSA-B768S ISDN Unit (Optional)

Power requirements	19.5 V
Power consumption	0.5 A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	166 × 34 × 128 mm (W × H × D) (6 <sup>9</sup> / <sub>16</sub> × 1 <sup>3</sup> / <sub>8</sub> × 5 <sup>1</sup> / <sub>16</sub> in.) (not including projections)
Mass	Approx. 400 g (14 oz.)
Supplied accessories	Interface cable (5 m) (16.4 ft) (1) Operating Instructions (1) Warranty booklet (1)

## PCSA-PRI ISDN Unit (Optional)

Power requirements	19.5 V
Power consumption	0.3 A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	166 × 34 × 128 mm (W × H × D) (6 <sup>9</sup> / <sub>16</sub> × 1 <sup>3</sup> / <sub>8</sub> × 5 <sup>1</sup> / <sub>16</sub> in.) (not including projected parts)
Mass	Approx. 400 g (14 oz.)
Supplied accessories	Interface cable (5 m) (16.4 ft) (1) Operating Instructions (1) Warranty booklet (1)

## PCSA-DSB1S Data Solution Box (Optional)

Power requirements	19.5 V
Power consumption	1.0 A
Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Storage humidity	20% to 80% (no condensation)
Dimensions	240 × 37 × 180 mm (W × H × D) (9 1/2 × 1 7/16 × 7 1/16 in.) (not including projections)
Mass	Approx. 1.1 kg (2 lb. 7 oz.)
Supplied accessories	Interface cable (8 m) (26.2 ft) (1) Operating Instructions (1) Warranty booklet (1)

## PCSA-M0G70 H.320 MCU Software (Optional)

Dimensions	50 × 2.8 × 21.5 mm (W × H × D) (2 × 1/8 × 7/8 in.)
Mass	Approx. 4 g (0.1 oz.)
Supplied accessories	Serial number seal (1) Operating Instructions (1)

## PCSA-M3G70 H.323 MCU Software (Optional)

Dimensions	50 × 2.8 × 21.5 mm (W × H × D) (2 × 1/8 × 7/8 in.)
Mass	Approx. 4 g (0.1 oz.)
Supplied accessories	Serial number seal (1) Operating Instructions (1)

Design and specifications are subject to change without notice.

## Acceptable RGB Input/Output Signals

### PCS-PG70/PG70P Communication Terminal (RGB OUT)

Picture element	Signal format	oh (kHz)	fV (Hz)	Dot clock (MHz)	Sync
1024 × 768	XGA VESA 60 Hz	48.363	60.004	65	H-neg V-neg

### PCSA-DSB1S Data Solution Box (RGB IN A/RGB IN B)

Picture element	Signal format	fH (kHz)	fV (Hz)	Dot clock (MHz)	Sync
640 × 480	VGA mode	31.469	59.94	25.17	H-neg V-neg
	Macintosh 13"	35	66.667	30.24	H-neg V-neg
	VGA VESA 72 Hz	37.861	72.809	31.5	H-neg V-neg
	VGA VESA 75 Hz	37.5	75	31.5	H-neg V-neg
	VGA VESA 85 Hz	43.269	85.008	36	H-neg V-neg
800 × 600	SVGA VESA 56 Hz	35.156	56.25	36	H-pos V-pos
	SVGA VESA 60 Hz	37.879	60.317	40	H-pos V-pos
	SVGA VESA 72 Hz	48.077	72.188	50	H-pos V-pos
	SVGA VESA 75 Hz	46.875	75	49.5	H-pos V-pos
	SVGA VESA 85 Hz	53.674	85.061	56.25	H-pos V-pos
1024 × 768	XGA VESA 60 Hz	48.363	60.004	65	H-neg V-neg
	XGA VESA 70 Hz	56.476	70.069	75	H-neg V-neg
	XGA VESA 75 Hz	60.023	75.029	78.75	H-pos V-pos

---

## PCSA-DSB1S Data Solution Box (RGB OUT)

Picture element	Signal format	fH (kHz)	fV (Hz)	Dot clock (MHz)	Sync
1024 × 768	XGA VESA 60 Hz	48.363	60.004	65	H-neg V-neg

- While the picture input from the RGB IN A or RGB IN B connector is transmitted, the picture of the input signal format (VGA, SVGA or XGA) is output from this connector.

## Pin Assignments

### 100BASE-TX/10BASE-T jack



### Modular jack

Pin	Signal	Description
1	TPOP	Transmit+
2	TPON	Transmit-
3	TPIP	Receive+
4	NC	—
5	NC	—
6	TPIN	Receive-
7	NC	—
8	NC	—

### ISDN UNIT connector



### 14-pin connector

Pin	Signal	Description
1	GND	Ground
2	19.5V	19.5V
3	DCLK+	Clock+
4	DCLK-	Clock-
5	DR+	Receive data+
6	DR-	Receive data-
7	FS+	Frame sync+
8	FS-	Frame sync-
9	DX+	Transmit data+
10	DX-	Transmit data-
11	RX	Serial receive data
12	TX	Serial transmit data
13	19.5V	19.5V

Pin	Signal	Description
14	GND	Ground

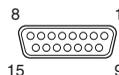
### VIDEO OUT MONITOR MAIN/SUB, VIDEO IN AUX 1/AUX 2 connectors



### Mini-DIN 4-pin connector

Pin	Signal	Description
1	GND	Analog Ground
2	GND	Analog Ground
3	Y	Brightness Signal
4	C	Chrominance Signal

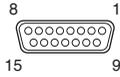
### CAMERA UNIT connector



### D-sub 15-pin connector (female)

Pin	Signal	Description
1	Y	Brightness signal
2	Y.GND	Brightness signal ground
3	C	Chrominance signal
4	C.GND	Chrominance signal ground
5	Video	Video signal
6	Video.GND	Video signal Ground
7	TXD	Transmit data
8	RXD	Receive data
9	19.5 V	19.5 V
10	MIC+	Microphone+
11	MIC-	Microphone-
12	SIRCS	Remote control data
13	DTR	Data terminal ready
14	STANDBY	Standby
15	GND	Ground

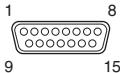
## TERMINAL connector



## D-sub 15-pin connector (female)

Pin	Signal	Description
1	Y	Brightness signal
2	Y.GND	Brightness signal ground
3	C	Chrominance signal
4	C.GND	Chrominance signal ground
5	Video	Video signal
6	Video.GND	Video signal Ground
7	RXD	Receive data
8	TXD	Transmit data
9	19.5 V	19.5 V
10	MIC+	Microphone+
11	MIC-	Microphone-
12	SIRCS	Remote control data
13	DTR	Data terminal ready
14	STANDBY	Standby
15	GND	Ground

## DSB connector

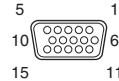


## D-sub 15-pin (male)

Pin	Signal	Description
1	Video	Video signal
2	Video.GND	Video signal ground
3	LINE A+	Line audio+
4	LINE A-	Line audio-
5	MIC+	Microphone+
6	MIC-	Microphone-
7	TD+	Receive+
8	TD-	Receive-

Pin	Signal	Description
9	19.5V	19.5V
10	NC	-
11	AGND	Analog ground
12	NC	-
13	RD+	Transmit data+
14	RD-	Transmit data-
15	GND	Ground

## RGB OUT connector



## Mini D-sub 15-pin (female)

Pin	Signal	Description
1	RED	R (red)
2	GREEN	G (green)
3	BLUE	B (blue)
4	NC	-
5	GND	Ground
6	RED.GND	R (red) signal ground
7	GREEN.GND	G (green) signal ground
8	BLUE.GND	B (blue) signal ground
9	NC	-
10	SYNC.GND	Sync signal ground
11	NC	-
12	NC	-
13	HSYNC	Horizontal sync
14	VSNC	Vertical sync
15	NC	-

## Pin Assignments on Optional Board Connectors

ISDN 1-3 jacks (PCSA-B384S)

ISDN 1-6 jacks (PCSA-B768S)

ISDN PRI jack (PCSA-PRI)



### Modular jack

Pin	Signal	Description
1	NC	–
2	NC	–
3	TA	Transmit+
4	RA	Receive+
5	RB	Receive–
6	TB	Transmit–
7	NC	–
8	NC	–

TERMINAL connector (PCSA-B384S/PCSA-B768S/PCSA-PRI)

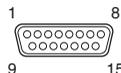


### USB connector

Pin	Signal	Description
1	GND	Chassis ground
2	19.5V	19.5V
3	DCLK+	Clock+
4	DCLK–	Clock–
5	DR+	Transmit data+
6	DR–	Transmit data–
7	FS+	Frame sync+
8	FS–	Frame sync–
9	DX+	Receive data+
10	DX–	Receive data–
11	TX	Serial transmit data

Pin	Signal	Description
12	RX	Serial receive data
13	19.5V	19.5V
14	GND	Ground

TERMINAL connector (PCSA-DSB1S)



### D-sub 15-pin connector (male)

Pin	Signal	Description
1	Video	Video signal
2	Video.GND	Video signal ground
3	LINE A+	Line audio+
4	LINE A–	Line audio–
5	MIC+	Microphone+
6	MIC–	Microphone–
7	RD+	Receive+
8	RD–	Receive–
9	19.5V	19.5V
10	NC	–
11	AGND	Analog ground
12	NC	–
13	TD+	Transmit data+
14	TD–	Transmit data–
15	GND	Ground

## List of Port Numbers Used on the PCS-PG70/PG70P

### When connecting one-to-one (Default)

When “Port Number Used” is set to “Default” in the LAN Setup menu, the PCS-G70/G70P uses the following port numbers. (MCU option not installed)

Signal	Port number
RAS (PCS-G70/G70P)	Any number from 2253 to 2255 (using GateKeeper)
RAS (GateKeeper)	1718 or 1719 (using GateKeeper)
Q.931 (dial)	Any number from 2253 to 2255
Q.931 (answer)	1720
H.245	Any number from 2253 to 2255
Audio RTP	49152
Audio RTCP	49153
Video RTP	49154
Video RTCP	49155
FECC RTP	49156
FECC RTCP	49157
Data conference/dual video RTP	49158
Data conference/dual video RTCP	49159

### When connecting one-to-one (Custom: TCP Port Number 3000 and UDP Port Number 3000)

When “Port Number Used” is set to “Custom” in NAT/Port of the LAN Setup menu, the PCS-PG70/PG70P uses the port numbers defined by the values entered in “TCP Port Number” and “UDP Port Number”.

For example, when “TCP Port Number” is set to “3000” and “UDP Port Number” is set to “3100”, the PCS-PG70/PG70P uses the following port numbers.

Signal	Port number
RAS (PCS-G70/G70P)	Any number from 3000 to 3002 (using GateKeeper)
RAS (GateKeeper)	1718 or 1719 (using GateKeeper)
Q.931 (dial)	Any number from 3000 to 3002
Q.931 (answer)	1720
H.245	Any number from 3000 to 3002
Audio RTP	3100
Audio RTCP	3101
Video RTP	3102
Video RTCP	3103
FECC RTP	3104
FECC RTCP	3105
Data conference/dual video RTP	3106
Data conference/dual video RTCP	3107

### Using as the main terminal of a multipoint videoconference (Default)

When “Port Number Used” is set to “Default” in NAT/Port of the LAN Setup menu, the PCS-PG70/PG70P operated as the main terminal uses the following port numbers.

Signal	Port number (First point)	Port number (N <sup>th</sup> point)
RAS (PCS-PG70/PG70P)	Any number from 2253 to 2263 (using GateKeeper)	
RAS (GateKeeper)	1718 or 1719 (using GateKeeper)	
Q.931 (dial)	Any number from 2253 to 2263	
Q.931 (answer)	1720	
H.245	Any number from 2253 to 2263	

Signal	Port number (First point)	Port number (N <sup>th</sup> point)
Audio RTP	49152	49152+20 × (N-1)
Audio RTCP	49153	49153+20 × (N-1)
Video RTP	49154	49154+20 × (N-1)
Video RTCP	49155	49155+20 × (N-1)
FECC RTP	49156	49156+20 × (N-1)
FECC RTCP	49157	49157+20 × (N-1)
Data conference/dual video RTP	49158	49158+20 × (N-1)
Data conference/dual video RTCP	49159	49159+20 × (N-1)

**Using as the main terminal of a multipoint videoconference (Custom: TCP Port Number 3000 and UDP Port Number 3000)**

When “Port Number Used” is set to “Custom” in NAT/Port of the LAN Setup menu, the PCS-PG70/PG70P uses the port numbers defined by the values entered in “TCP Port Number” and “UDP Port Number”.

For example, when “TCP Port Number” is set to “3000” and “UDP Port Number” is set to “3100”, the PCS-PG70/PG70P operated as the main terminal uses the following port numbers.

Signal	Port number (First point)	Port number (N <sup>th</sup> point)
RAS (PCS-PG70/PG70P)	Any number from 3000 to 3010 (using Gate Keeper)	
RAS (GateKeeper)	1718 or 1719 (using Gate Keeper)	
Q.931 (dial)	Any number from 3000 to 3010	

Signal	Port number (First point)	Port number (N <sup>th</sup> point)
Q.931 (answer)	1720	
H.245	Any number from 3000 to 3010	
Audio RTP	3100	3100+20 × (N-1)
Audio RTCP	3101	3101+20 × (N-1)
Video RTP	3102	3102+20 × (N-1)
Video RTCP	3103	3103+20 × (N-1)
FECC RTP	3104	3104+20 × (N-1)
FECC RTCP	3105	3105+20 × (N-1)
Data conference/dual video RTP	3106	3106+20 × (N-1)
Data conference/dual video RTCP	3107	3107+20 × (N-1)



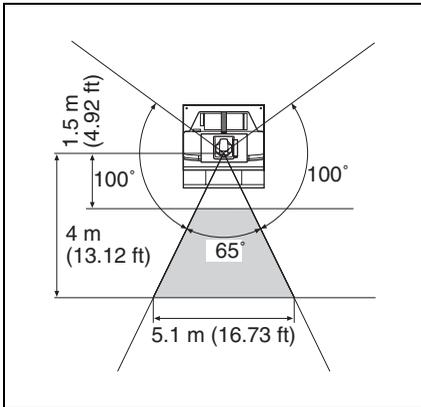
# Videoconferencing Room Layout

Be sure to position camera and microphone appropriately in your videoconferencing room.

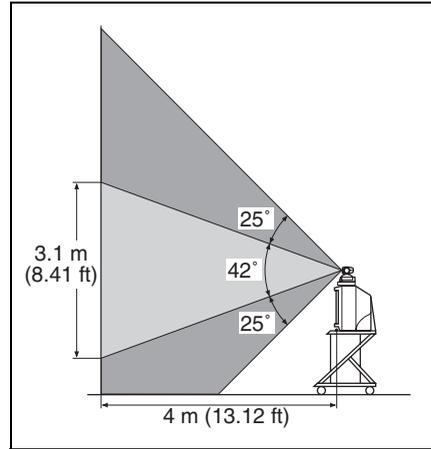
## Camera Range

■ represents the shooting area of the camera when the zoom has been extended fully. ■ indicates the shooting area of the camera when the left/right angling function is fully utilized. Use the measurements below as a guide for the layout of your videoconference room.

## Top view (horizontal range at maximum zoom-out)



## Side view (vertical range at maximum zoom-out)

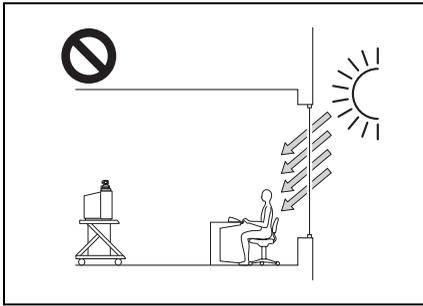


## Layout Considerations

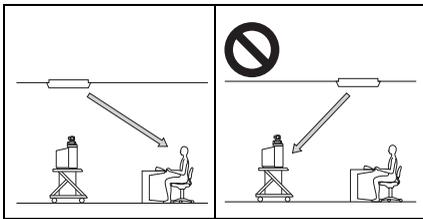
- Avoid having large, moving objects, especially people, behind the participants, as the quality of the picture transmitted to the remote party will deteriorate.
- Do not seat participants in front of a wall with fine stripe patterns.
- Choose a room where echo will not occur.
- Do not install the system near noise sources such as air conditioners or copy machines.
- Avoid placing the system in a room where there are the speakers used for an in-house broadcasting system.

## Lighting Considerations

Do not point the camera toward a window where sunlight comes in as back lighting may decrease the contrast. If it is necessary, cover the window with a thick curtain.



Adjust room lighting so that it falls on the participants. Avoid direct light on the TV monitor. Light intensity on faces should be about 300 lux or more.



If an inverter type or brightness-adjustable type of fluorescent lamp is used, the sensitivity of the Remote Commander may deteriorate.



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# Glossary

## **Bonding\***

Bonding is one of the Inverse Multiplexing methods allowing the connection of the videoconferencing system with multiple ISDN lines. Dialing the first ISDN line enables you to connect all other lines. Dialing the second and later lines is done automatically by the communication between the videoconferencing systems on both sites. To use bonding, it is required that both videoconferencing systems be equipped with the bonding function and that "Area Code" and "Local Number" in the ISDN Setup menu of the answering site be set correctly. As the communication between the systems when using the bonding function is made via the ISDN numbers of the answering site, the "Area Code" and "Local Number" settings in the ISDN Setup menu are not essential at the dialing site.

\* Bonding (Bandwidth on Demand Interoperability Group) is a registered trademark of THE BONDING CONSORTIUM.

## **BRI**

An abbreviation for Basic Rate Interface. Basic interface standardized by the ITU-T. Single ISDN has two B channels and one D channel.

## **CIF**

An abbreviation for Common Intermediate Format. This format allows communication between different color systems (NTSC and PAL).  
352 pixels × 288 lines

## **Codec**

An abbreviation for Coder-Decoder. An integrated device of a coder that converts an analog audio/video signal to a digital data stream and compresses it, and a decoder for expanding to restore the original analog signal.

## **DHCP**

An abbreviation for Dynamic Host Configuration Protocol. Manages IP addresses in the network.

## **DNS**

An abbreviation for Domain Name System. Defines the domain name system.

## **Echo Canceler**

Device to eliminate echo that occurs when transmitting audio.

## **Frame rate**

The number of frames which can be encoded/decoded in one second.

**G.711**

Audio encoding/decoding format recommended by the ITU-T. A phone bandwidth audio signal is converted to a digital signal with a data rate of 64 Kbps. It can be transmitted with a data rate of 56 Kbps.

**G.722**

Audio encoding/decoding format recommended by the ITU-T. A 7-kHz bandwidth audio signal is converted to a digital signal with a data rate of 48 Kbps, 56 Kbps or 64 Kbps.

**G.722.1**

Audio encoding/decoding format recommended by the ITU-T. A 7-kHz bandwidth audio signal is converted to a digital signal with a data rate of 24Kbps or 32 Kbps.

**G.723.1**

Audio encoding/decoding format recommended by the ITU-T. A phone bandwidth audio signal is converted to a digital signal with a data rate of 5.3 Kbps or 6.3 Kbps.

**G.728**

Audio encoding/decoding format recommended by the ITU-T. A phone bandwidth audio signal is converted to a digital signal with a data rate of 16 Kbps.

**G.729**

Audio encoding/decoding format recommended by the ITU-T. A phone bandwidth audio signal is converted to a digital signal with the data rate of 8 Kbps.

**Gatekeeper**

Controls the access of H.323 videoconference devices on a network. Administers the zone, access limitation, audio/video bandwidth, and alias etc.

**H.221**

Frame structure for a 64 to 1920 Kbps channel in audiovisual teleservices.

**H.239**

ITU-T standard for sharing data and presentations with video. This supports the dual video presentation mode, enabling endpoints to receive and transmit video and presentation data simultaneously.

**H.261**

Video codec for audio/visual services as  $p \times 64$  Kbps. Videoconferencing standard that defines a video coding algorithm, picture format and error correcting technology for communication between different manufacturers' video codecs.

**H.263**

A video coding algorithm based on the H.261 standard. This format enables communication via a lower bit rate.

**H.263+**

Video encoding/decoding format based on the H.263 standard, added by the Annex I to T (I, J, K ..... T), that allows enhanced picture quality and error resistance. Normally, this format is a profile used with a combination of some of the Annex for H.263/H.263+.

**H.264**

A video coding algorithm newly standardized by the ITU-T in May 2003. This format realizes high-quality picture via a lower bit rate. It provides an equal picture quality via half as low bit rate as the H.263 format. The H.264 format is also called as MPEG4 Advanced Video Coding (AVC).

**H.320**

A videoconferencing standard for communication between different videoconferencing system.

**H.323**

This enables communications on the non-QOS (Quality of Service) LAN.

**HMLP**

See "MLP".



## **I-MUX**

An abbreviation for Inverse Multiplexer. This protocol allows you to transmit the data at 384 Kbps via 6B-channel.

## **Interlaced SIF**

With TV pictures, 60 fields of pictures per second are interlaced to provide high resolution and smooth motion pictures. The conventional videoconferencing system uses CIF format pictures (352 pixel × 388 line) transmitted in 30 fields per second. In CIF format, smooth motion pictures like TV pictures cannot be obtained. In the Interlaced SIF format, interlaced SIF size pictures (352 pixel × 240 line) can be transmitted at 60 frames per second. This enables display of pictures with higher vertical resolution of 352 pixel × 480 lines, providing smooth motion picture. However, a relatively higher bit rate is required as the amount of information is twice as much as that of the CIF format.

## **ISDN**

An abbreviation for Integrated Services Digital Network. This is a communication protocol by CCITT on transmission of integrated voice, video, and data. Bandwidths include basic (64 Kbps) and primary rate (1.544 and 2.048 Mbps).

## **ITU-T**

An abbreviation for International Telecommunication Union, Telecommunications.

## **Lip synchronization**

A function that synchronizes sound with motion. Sound processing is much faster than motion processing, thus sound and motion sometimes get out of step with each other.

## **MCU**

An abbreviation for Multipoint Control Unit. When connecting a MCU, a multipoint videoconference can be held.

## **MLP**

Data communication is also available during communication of video/audio signals between the videoconferencing systems. The MLP or HMLP is a protocol for data communication such as NetMeeting. Using the HMLP protocol allows faster data transmission.

## **MPEG4**

A video coding algorithm recommended by the ISO/IEC based on the H.263+ standard. Adding some tools provides some improvement of picture quality compared with the H.263+ standard. The MPEG4 format is commonly used for personal computers, cellular phones, etc.

## **P in P**

An abbreviation for "Picture in Picture." This is a function which allows you to monitor your own party on a small window on your TV monitor.

## **QCIF**

An abbreviation for Quarter CIF. The number of pixels is a quarter than one of CIF format. 176 pixels × 144 lines

## **Secondary terminal**

Normally, a multipoint videoconference is not available unless the video and audio modes and transmission rate of the videoconferencing systems of all the sites are the same.\*<sup>1</sup> For a multipoint videoconference the terminal that can be connected in the same modes is called a primary terminal, while a secondary terminal is the terminal in which some of the functions are restricted since the connection is not enabled with the same modes. The restriction on the functions depends on the conditions described in "Notes on Secondary Terminals" under "in chapter 8 Multipoint Videoconference". For example, this system does not transmit video signals to a terminal that has no common formats but can communicate via audio signals. In this case, the terminal in which picture viewing is not available is regarded as a secondary terminal.\*<sup>2</sup> A terminal communicated via a normal phone included in the multipoint videoconference

is also called a secondary terminal. For details on secondary terminals, see “Notes on Secondary Terminals” on page 187.

- \*1 Difference between the NTSC and PAL color systems is permitted.
- \*2 Receiving the video signals from this terminal may be available with the system.

### **SNMP**

An abbreviation for Simple Network Management Protocol. This protocol is for management information between the management station and the managed terminals.

### **SPID**

An abbreviation for Service Profile ID.

### **Sub-address**

An identification number given to devices sharing a common ISDN line.

### **TOS**

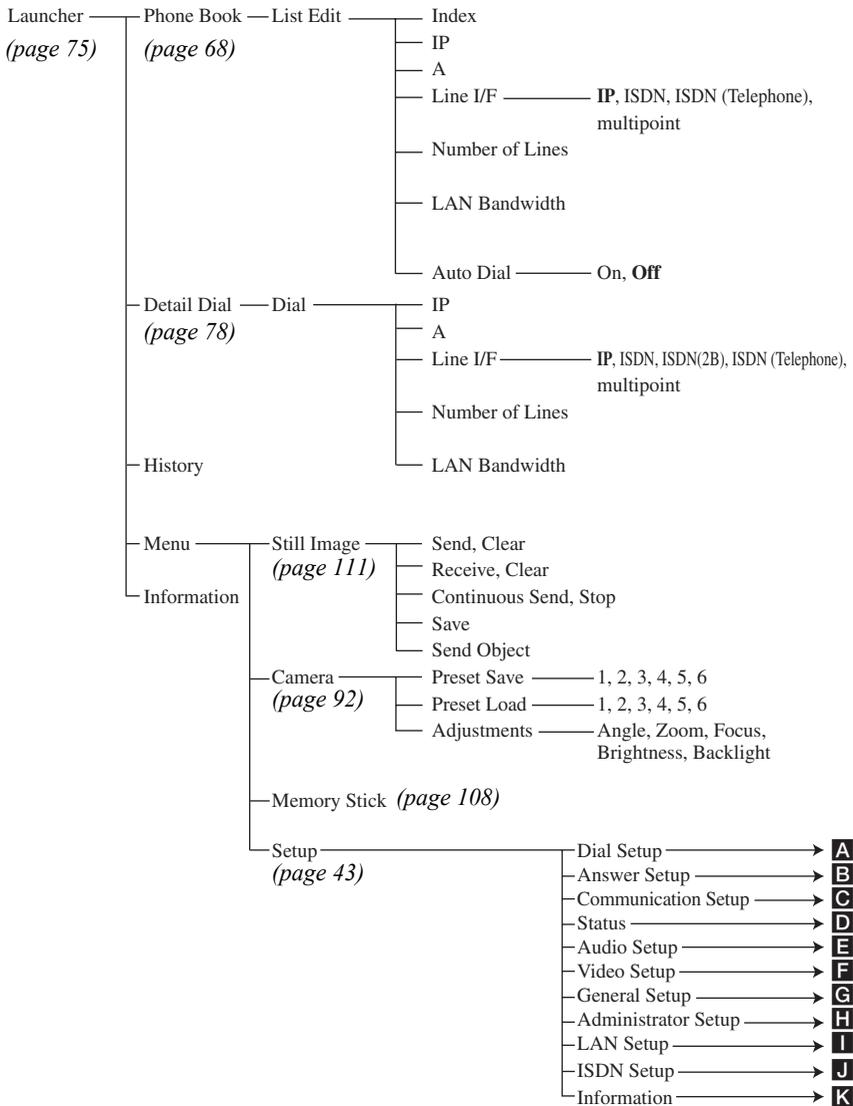
Inputting the information data in the TOS field of the IP address allows the communication system to judge the packet transmission priority, etc. It also enables change of path according to the types of service (Delay or Size).



# Menu Configuration

The menus of the camera are configured as described below.

For detailed information, see pages in parentheses. The initial settings of each item are **bolded**.



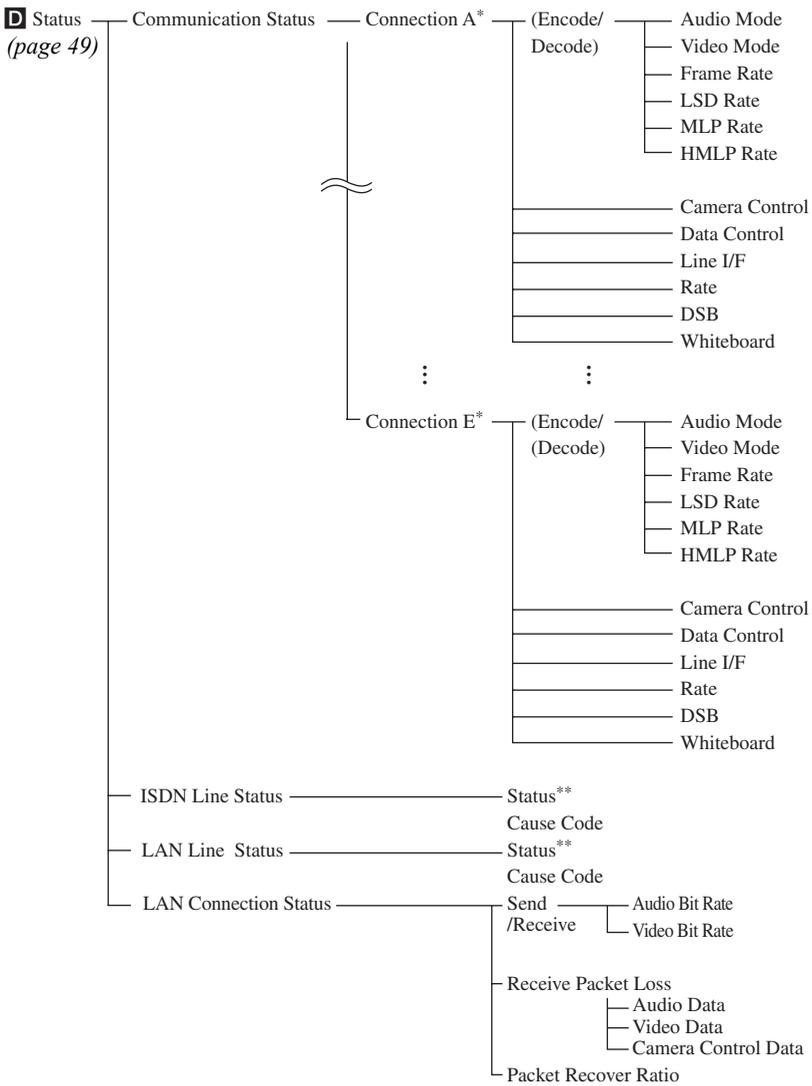
<b>A</b> Dial Setup (page 44)	Page: 1/2	Line I/F	IP ISDN, ISDN (Telephone)
		Bonding	Auto, On
		Telephone Mode	Auto, G.711μ-law, G.711A-law
		More Options Enable	On, Off
		User Name Input	On, Off
	Page: 2/2	Prefix	Prefix-None, Prefix-A, Prefix-B, Prefix-C
		Prefix-A	Number input
		Prefix-B	Number input
		Prefix-C	Number input
		Select LAN Prefix	Enable, Disable
LAN Prefix	Number input		

<b>B</b> Answer Setup (page 46)	Page: 1/1	Auto Answer	Auto Answer, Off
		ISDN MSN	On, Off
		Mic on Answer	On, Off
		Reject Answer	On, Off



**C** Communication Setup  
(page 46)

Page: 1/4	Individual Settings	On, <b>Off</b>
	Number of Lines	
	LAN bandwidth	
Page: 2/4	Video Mode	<b>Auto</b> , H.264, MPEG4, H.263+, H.261
	Interlace Mode	<b>On</b> , Off
	4CIF Mode	<b>On</b> , Off
	Video Frame	<b>Auto</b> , 15fps, 30fps
	Audio Mode	<b>Auto</b> , MPEG4 Audio, G.722.1, G.722, G.729, G.728, G.723.1, G.711
	Restrict	<b>Auto</b> , 56K
Page: 3/4	Far End Camera Control	<b>On</b> , Off
	T.120 Data	On, <b>Off</b>
	H.239	<b>On</b> , Off
Page: 4/4	Multipoint Mode	<b>Auto</b> , On
	Broadcast Mode	<b>Split</b> , Voice Activate
	Split	<b>Automatic</b> , Six-screen Mosaic
	Sender Screen	<b>Full Screen</b> , Automatic, Six-screen Mosaic



\* During a multipoint videoconference Connection A to E with the terminal name appear according to the points connected.  
 \*\* While not in communication only these items are displayed.

<b>E</b> Audio Setup (page 50)	Page: 1/2	Input Select	MIC, AUX, MIC + AUX
		Mic Select	MIC, DSB MIC, LINE
		CTE	Off, LINE, DSB AUX IN
		Echo Canceler	On, Off
		Lip Sync	On, Off
		Recording Mute	On, Off
	Page: 2/2	Beep Sound	On, Off
		Sound Effect	On, Off
		Dial Tone	On, Off
		Ringer Tone	On, Off

<b>F</b> Video Setup (page 52)	Video Input	Dual Video	On, Off
		Split	Off, Horizontal, Vertical
		MAIN	CAMERA, IR1, AUX1
		SUB	CAMERA, IR2, AUX2
	Custom Input Label	Main Camera	
		IR1	
		AUX1	
		Sub camera	
		AUX2	
	Monitor Out	Monitors	1, 2, 3
		Connection	VIDEO 1, VIDEO 2, RGB OUT, RGB OUT (DSB)
		Monitor	MAIN, SUB

**G** General Setup  
(page 53)

General Setup (page 53)	Device Setup Page: 1/2	Clock Set	
		Terminal Name	
		Standby Mode	On, Off
		Standby Time	1–99 minutes
		Last Number Registration	On, Off
	Device Setup Page: 2/2	Control by Far End	On, Off
		Language	English, French, German, Japanese, Spanish, Italian, Simplified Chinese, Portuguese
		IR Repeater Mode	MODE1, MODE2, MODE3, MODE4
	Menu Screens Page: 1/3	T.120 PC Address	
		Time Display	On, Off
		Display Terminal Name	Off, Show temporarily, Always show
	Menu Screens Page: 2/3	Character Input Help	On, Off
		Phone Book Button	On, Off
		Detail Dial Button	On, Off
		Menu Button	On, Off
Information Button		On, Off	
Menu Screens Page: 3/3	History Button	On, Off	
	Direct Phone Book Button	On, Off	
	Direct Dial Text Box	On, Off	
Whiteboard Page: 1/1	Guide	On, Off	
	Whiteboard Attachment	Vertical, Horizontal	
	Whiteboard Size	2'0"×3'0", 3'0"×4'0", 4'0"×6'0", 4'0"×8'0" 3'0"×2'0", 4'0"×3'0", 6'0"×4'0", 8'0"×4'0"	
	Whiteboard Size Measurement	Inches, Meters	

**H** Administrator Setup  
(page 56)

Administrator Setup (page 56)	Password Page: 1/3	Administrator Password	
		Phone Book Modification Password	
		Save Settings Password	
		Remote Access Password	
	Password Page: 2/3	Dial Setup	Enable, Disable
		Answer Setup	Enable, Disable
		Transmission Mode	Enable, Disable
		Audio Setup	Enable, Disable
		Video Setup	Enable, Disable
	Password Page: 3/3	General Setup	Enable, Disable
		LAN Setup	Enable, Disable
	Phone Book Page: 1/1	ISDN Setup	Enable, Disable
		Save Phone Book	
		Load Phone Book	
	Private Phone Book Page: 1/1	Clear Phone Book	
		Auto Dialing	On, Off
		Create Private Phone Book	
		Delete Private Phone Book	
Other Settings Page: 1/1	Copy to Private Phone Book		
	Web Monitor	On, Off	

**I** LAN Setup  
(page 59)

General Setup Page: 1/2	DHCP Mode Host Name IP Address Network Mask Gateway Address DNS Address	DHCP Mode	Auto, <b>Off</b>				
		General Setup Page: 2/2	LAN Mode	Auto Negotiation, 100Mbps Full Duplex, 100Mbps Half Duplex, 10Mbps Full Duplex, 10Mbps Half Duplex			
				Gatekeeper Mode Page: 1/1	Gatekeeper Mode Gatekeeper Address User Alias User Number	Auto, On, <b>Off</b>	
		SNMP Setup Page: 1/1	SNMP Mode Trap Destination Community Description Location Contact	On, <b>Off</b>			
				PPPoE Page: 1/2		PPPoE PPPoE User Name PPPoE Password	On, <b>Off</b>
							PPPoE Page: 2/2
	Specify, <b>Obtain automatically</b>						
	NAT/Port Setup Page: 1/1	NAT Mode NAT Address Port Number Used TCP Port Number UDP Port Number	On, <b>Off</b>				
			Custom, <b>Default</b>				
			QoS Setup Page: 1/1	Hybrid Forward Error Correction Packet Resend Request Adaptive Rate Control	On, Off On, Off On, Off On, Off		
					Type of Service Setup Page: 1/1	TOS IP Precedence Low Delay High Throughput High Reliability Minimum Cost Diffserve	<b>Off</b> , IP Precedence, Diffserve
	On, <b>Off</b>						
	On, <b>Off</b>						
	On, <b>Off</b>						
	On, <b>Off</b>						
Encryption via LAN Setup Page: 1/1	Encryption via LAN Encryption Password	On, Off					

**J** ISDN Setup  
(page 64)

Page: 1/6	Country/Region Protocol
Page: 2/6	Area Code Local Number
Page: 3/6	Sub Address
Page: 4/6	SPID
Page: 5/6	SPID A1-C2*
Page: 6/6	SPID D1-F2*

\* Displayed only when "USA" is selected in "Country/Region".

**K** Information

Page: 1/1  
(page 67)

- Host Version
- ISDN UNIT Version
- DSB Version
- DSP Version
- Software Option ————— None, Multipoint (H.323),  
Multipoint (H.320),  
Multipoint (H.320 + H.323)
- Option I/F ————— None, ISDN UNIT (B768), DSB,  
Whiteboard, ISDN UNIT (B384),  
ISDN UNIT (PRI)
- Host Name
- IP Address
- MAC Address
- Serial Number



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