

Video Communication Terminal Operating Instructions

Model No.

KXC-AP150



Please read these Operating Instructions before using the unit and save them for future reference.

Introduction

Getting Started

Basic Operation

Additional Features

Programming Features

Miscellaneous Information

Thank you for purchasing the Panasonic Video Communication Terminal. For optimum performance and safety, please read these instructions carefully.

Retain this information

Model number: _____ Date of purchase: _____

Serial number: _____ Dealer's name: _____

Dealer's address: _____

Kit Composition

Check that the main unit and the accessories listed below are all present.
 In the unlikely event that any of them cannot be accounted for, contact your dealer.

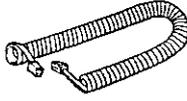
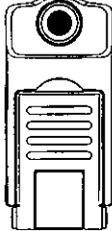
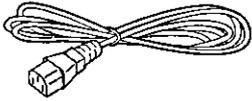
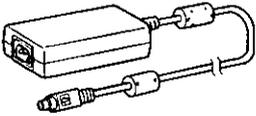
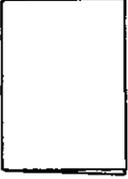
<p>Main Unit1 pc.</p> 	<p>Handset1 pc.</p>  <p>PFJXE0105Z</p>	<p>Handset cord(4-pin)···1 pc.</p>  <p>PSJA1027Z</p>
<p>Camera1 pc.</p>  <p>PSOU1002Z</p>	<p>Camera cord(6-pin) ···1 pc.</p>  <p>PSZZ10AP150</p>	<p>Power cord1 pc.</p>  <p>PQJA200Z</p>
<p>Telephone line cord ···1 pc.</p>  <p>PQJA102Y</p>	<p>AC adaptor1 pc.</p>  <p>PSLP1051Y</p>	<p>Operating Instructions ···1 pc.</p>  <p>PSQX1232Z</p>
<p>Quick Reference Guide ···1 pc.</p>  <p>PSQX1339Z</p>	<p>Installation Manual ···1 pc.</p>  <p>PSQX1375Z</p>	

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Important Safety Instructions

When using this unit, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from AC outlets before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit near water, for example, near a bathtub, washbowl, kitchen sink, or the like.
5. Place this unit securely on a stable surface. Serious damage and/or injury may result if the unit falls.
6. Do not cover slots and openings on the unit. They are provided for ventilation and protection against overheating. Never place the unit near radiators, or in a place where proper ventilation is not provided.
7. Use only the power source marked on the unit. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
8. Do not place objects on the power cord. Install the unit where no one can step or trip on the cord.
9. Do not overload wall outlets and extension cords. This can result in fire or electric shock.
10. Never push any objects through slots in this unit. This may result in fire or electric shock. Never spill any liquid on the unit.
11. To reduce the risk of electric shock, do not disassemble this unit. Take the unit to an authorized service center when service is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the unit is subsequently used.
12. Unplug this unit from the wall outlet and contact authorized service center when the following conditions occur:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the unit.
 - C. If the unit has been exposed to rain or water.
 - D. If the unit does not work normally by following the operating instructions. Adjust only controls covered by the operating instructions. Improper adjustment may require extensive work by an authorized service center.
 - E. If the unit has been dropped or physically damaged.
 - F. If the unit exhibits a distinct change in performance.
13. During thunderstorms, avoid using telephones except cordless types. There may be a remote risk of an electric shock from lightning.
14. Do not use this unit to report a gas leak, when in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.

CAUTION:

THE POWER SUPPLY CORD IS USED AS THE MAIN DISCONNECT DEVICE, ENSURE THAT THE SOCKET-OUTLET IS LOCATED/INSTALLED NEAR THE EQUIPMENT AND IS EASILY ACCESSIBLE.

Important Safety Instructions

Do not use this unit near a fire or heating appliance. This can cause deformation or malfunctioning.



Do not place the unit in direct sunlight or near a cooling or heating (air-conditioning) unit. Using the unit at temperatures above 35°C or below 5°C can cause incorrect operation, deformation or malfunctioning.



Position the unit at least 20 cm away from any wall.

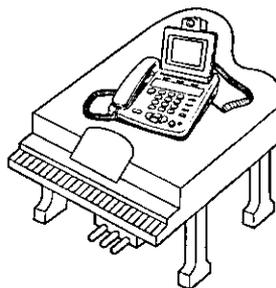
Placing the unit closer can result in incorrect operation caused by the heat which the unit generates.



Do not place the unit on a carpet, rug, etc. This will block the unit's ventilation holes, causing the unit to heat up and the carpet or rug to become discolored.

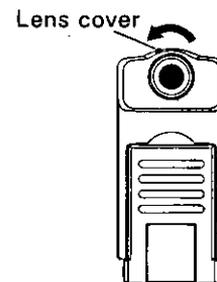


Do not place the unit on a piano, etc. This can cause cracks, scratches and discoloration.



Keep the lens cover closed when the unit is not being used.

Exposure of the lens to a strong source of light over a prolonged period of time can cause the image to become discolored.



- Do not place heavy objects on top of this unit.
- Place the unit on a flat surface.
- Care should be taken so that objects do not fall into and liquids are not spilled into the unit.
- Do not subject this unit to excessive smoke, dust, mechanical vibration, or shock.
- Do not touch the plug with wet hands.
- Keep the unit away from electrical noise generating devices, such as fluorescent lamps and motors.
- The manufacture will not be liable for any communication failures caused by the product and/or any incidental damage sustained as a result of such failures.

Important Safety Instructions

FCC Information

If required by the telephone company, inform them as follows.

- FCC Registration No.:
(found on the bottom of the unit)
- Ringer Equivalence:0.4B
- The particular telephone line to which the equipment is connected.

This unit must not be connected to a coin operated line. If you are on a party line, check with your local telephone company.

Ringer Equivalence Number(REN):

The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

In the event that terminal equipment causes harm to the telephone network, the telephone company should notify the customer, if possible, that service may be stopped. However, where prior notice is impractical, the company may temporarily cease service providing that they:

- a) Promptly notify the customer.
- b) Give the customer an opportunity to correct the problem with their equipment.
- c) Inform the customer of the right to bring a complaint to the Federal Communication Commission pursuant to procedures set out in FCC Rule and Regulations Subpart E of Part 68.

The Telephone Company may make changes in its communications facilities, equipment, operations, or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68.

If such changes can be reasonably expected to render any customer's terminal equipment incompatible with telephone company communications facilities, or require modification or alteration of such terminal equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customer an opportunity to maintain uninterrupted service.

Important Safety Instructions

When programming emergency numbers and/or making test calls to emergency numbers:

1. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
2. Perform such activities in the off-peak hours, such as early morning hours or late evenings.

This telephone provides magnetic coupling to hearing aids.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Operation Overview

- This unit is a video communication terminal which uses a regular telephone line to transmit moving images, still images and sound.
- This is an all-in-one unit which requires neither any special installation nor any external line connection device.
- The unit complies with the ITU-T H.324 international standard.
- The unit's wide-ranging functions and its support for a wide spectrum of applications make it useful in the following different ways.
- Video connection problems may occur when trying to communicate with another H.324 Videophone if it is made by another company.
We recommend that the Panasonic VICTPRO be used as the receiving Videophone.

Telephone (See page 21)

- The unit can be used as a regular telephone if it is connected to an ordinary telephone line.

Video phone (See page 23)

- The unit can be used to have conversations while each party views the image of the other party.

Monitoring (See page 57)

- An unattended store or other facility can be monitored by connecting the monitoring camera to a VICTPRO at the far end.

Alarm monitoring (See page 69)

- When a sensor or other monitoring device is connected to the alarm connector and the monitoring device is activated, images can be sent automatically to another party who has been registered.

Programming functions (See page 50)

- The unit and the device connected to the RS-232C connector on the unit can be controlled provided that commands have been programmed and registered in advance.
- When commands are registered in the dial buttons:
The unit and the device connected to it can be controlled by pressing the dial buttons.
- Auto answering program:
The unit and the device connected to it can be controlled when calls are answered automatically.
- Alarm program:
The unit and the device connected to it can be controlled when changes in the alarm signals have occurred.
- Timer program:
The unit and the device connected to it can be controlled at a designated time.

Modem functions (See page 80)

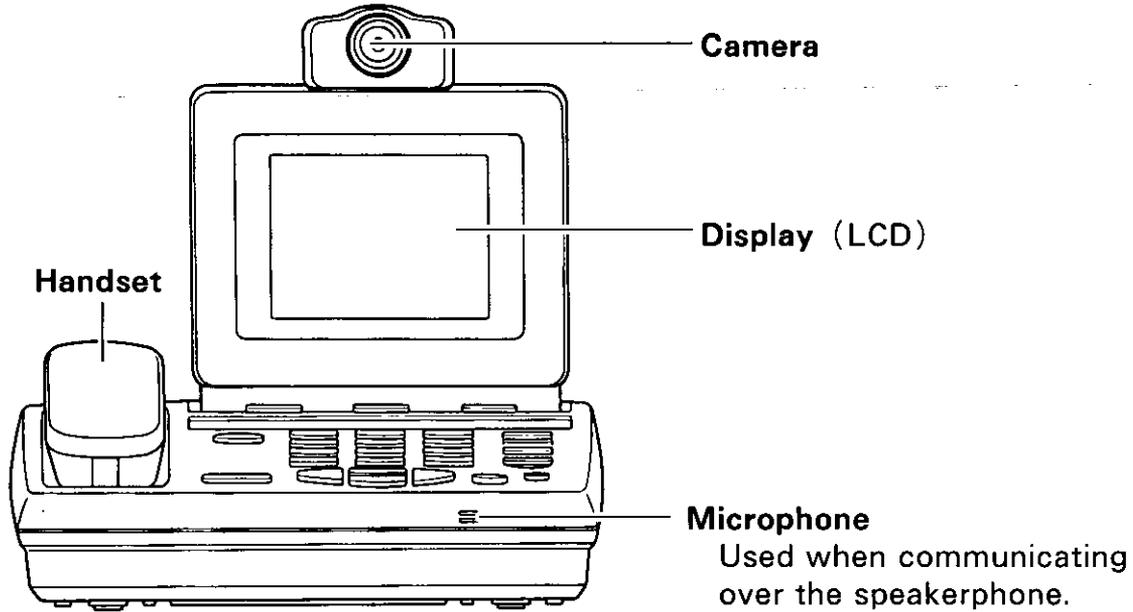
- The unit can be used as a modem when it is connected to a personal computer.

PC control functions (See page 82)

- The unit's functions can be controlled from a personal computer by connecting the unit to a personal computer and creating applications.

Overview

Front and side views (camera and display)



Lens cover

Used to cover the lens when you do not want your image to be transmitted and to protect the lens when video mode is not being used.

Contrast control

Used to adjust the contrast of the LCD screen.

Brightness control

Used to adjust the brightness of the LCD screen.

Focus control

Used to adjust the camera's focus.

 ...For a close-up view

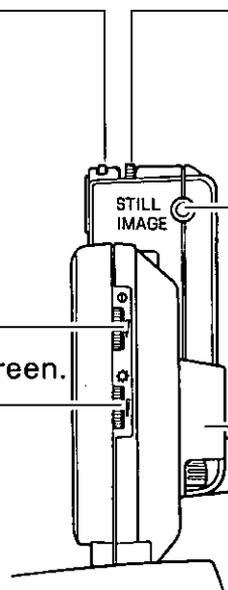
 ...For a normal view

STILL IMAGE button

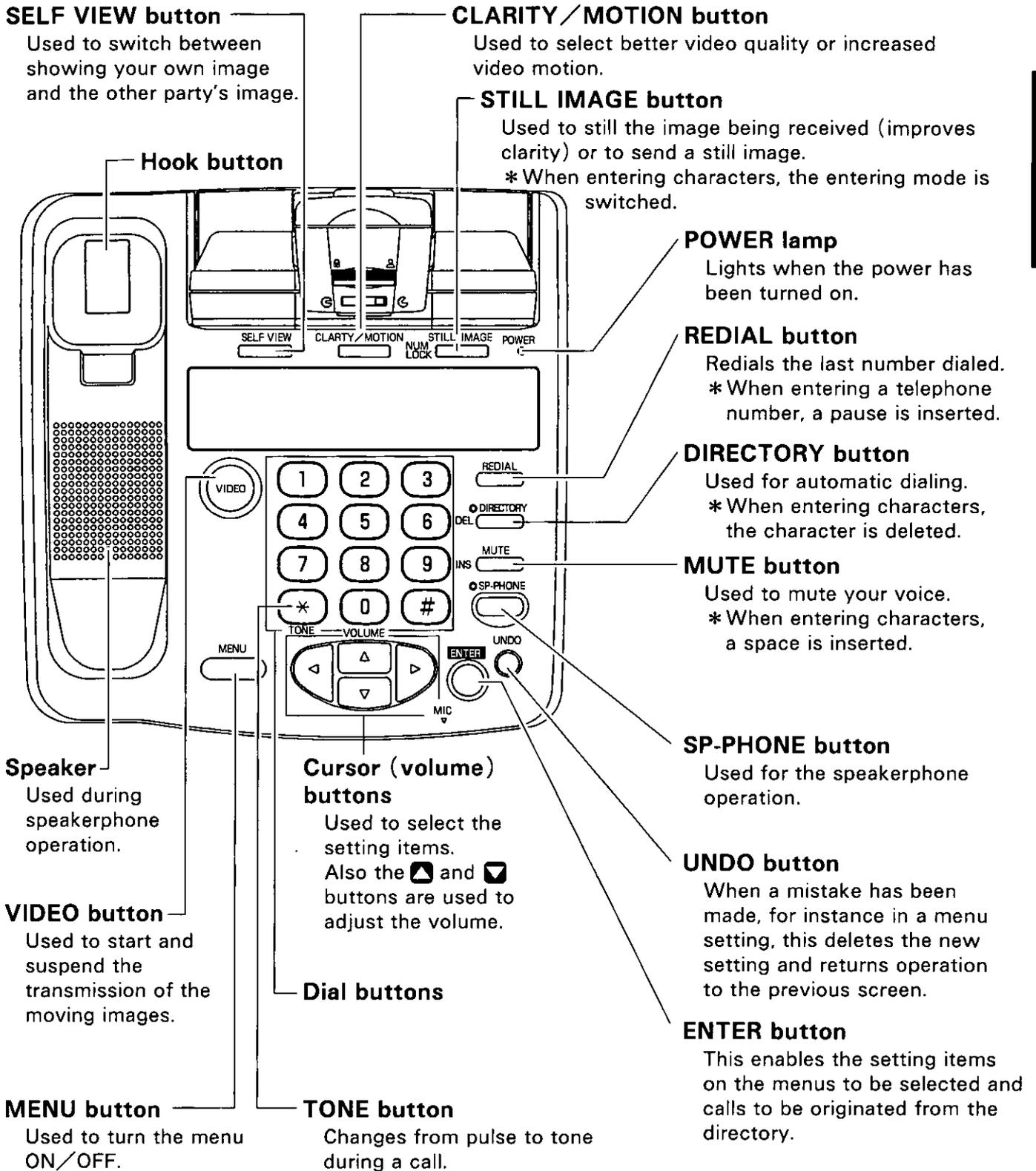
Used to capture and send a still image.

Camera holder

Used to hold the camera.

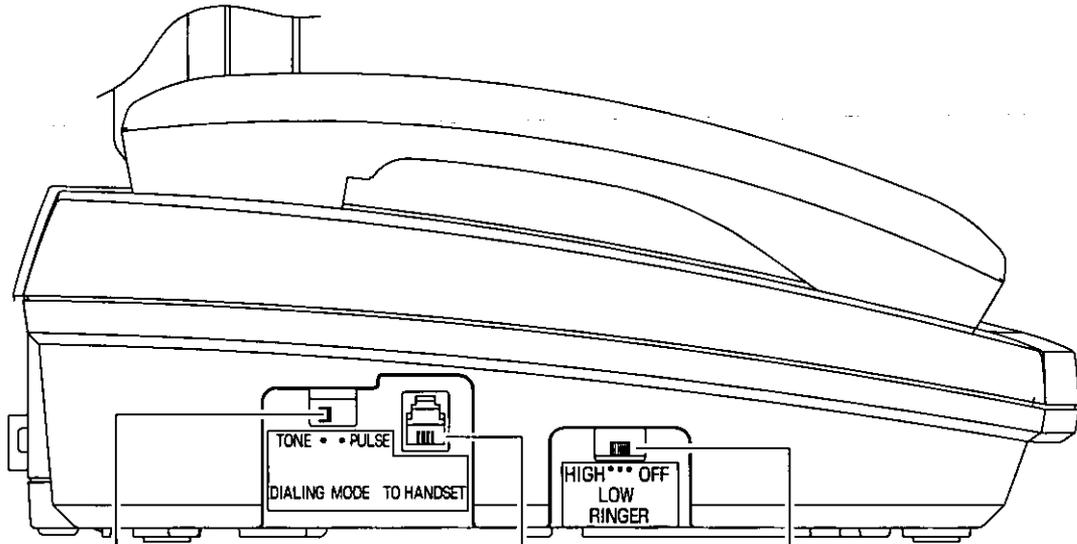


Top view



Overview

Left side view



DIALING MODE switch

Used to set dialing mode.
(See page 16.)

HANDSET jack

The handset is connected here.
(See page 17.)

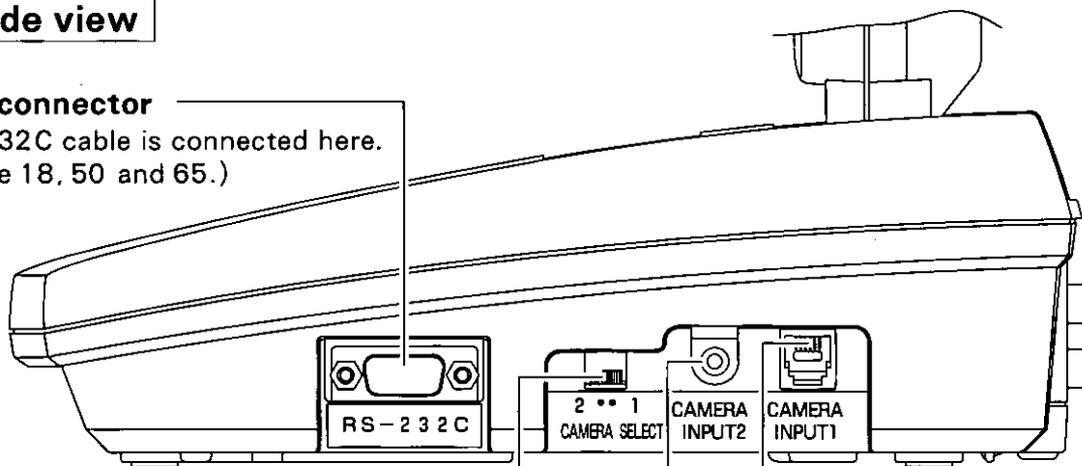
RINGER switch

Used to adjust the ringer volume.
(See page 22.)

Right side view

RS-232C connector

The RS-232C cable is connected here.
(See page 18, 50 and 65.)



CAMERA SELECT switch

Switches between camera input 1
and camera input 2.
(See page 16 and 34.)

CAMERA INPUT 1 connector

The accessory camera is connected here.
(See page 17.)

CAMERA INPUT 2 connector

A video camera or other input device is connected here.
(See page 34.)

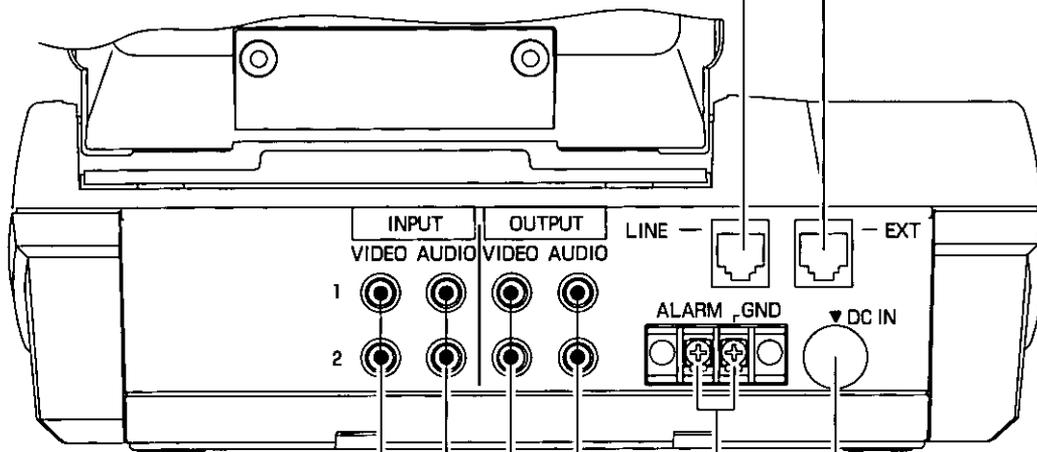
Rear view

Telephone line jack

The telephone line cord is connected here.
(See page 17.)

External telephone jack

An external telephone or answering machine can be connected here. (optional)
(See page 88.)



VIDEO INPUT connectors 1, 2 (yellow)
(See page 37.)

Power socket
The AC adaptor is connected here.
(See page 17.)

ALARM connectors
The alarm sensors are connected here.
(See page 65.)

AUDIO OUTPUT connectors 1, 2 (white)
(See page 38.)

AUDIO INPUT connectors 1, 2 (white)
(See page 37.)

VIDEO OUTPUT connectors 1, 2 (yellow)
(See page 38.)

Getting Started

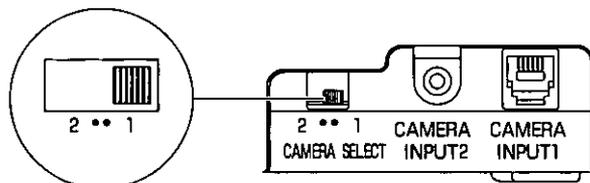
Connection / Initial Setup

Step 1. Connect Handset

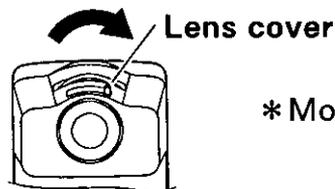
Plug the handset cord into the handset and main unit.

Step 2. Connect Camera

- Plug the camera cord into the camera and main unit.
- Set the camera select switch to 1.



- Open the lens cover.



* Move the lens cover until it clicks into place.

* Close the lens cover to protect camera lens when not using video mode.

Step 3. Connect Telephone Line

Plug the telephone line cord into the main unit and telephone outlet.

Step 4. Connect AC Adaptor

Plug the AC adaptor into the main unit.

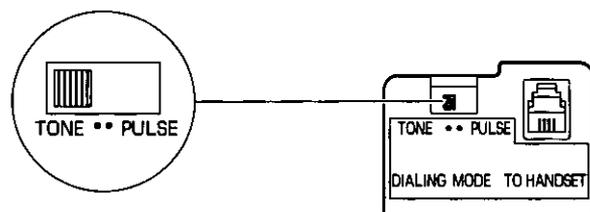
* USE ONLY Panasonic AC ADAPTOR PSLP1051Y.

Step 5. Connect Power Cord

Plug the power cord into the AC adaptor and AC power outlet.

Step 6. Select Dialing Mode

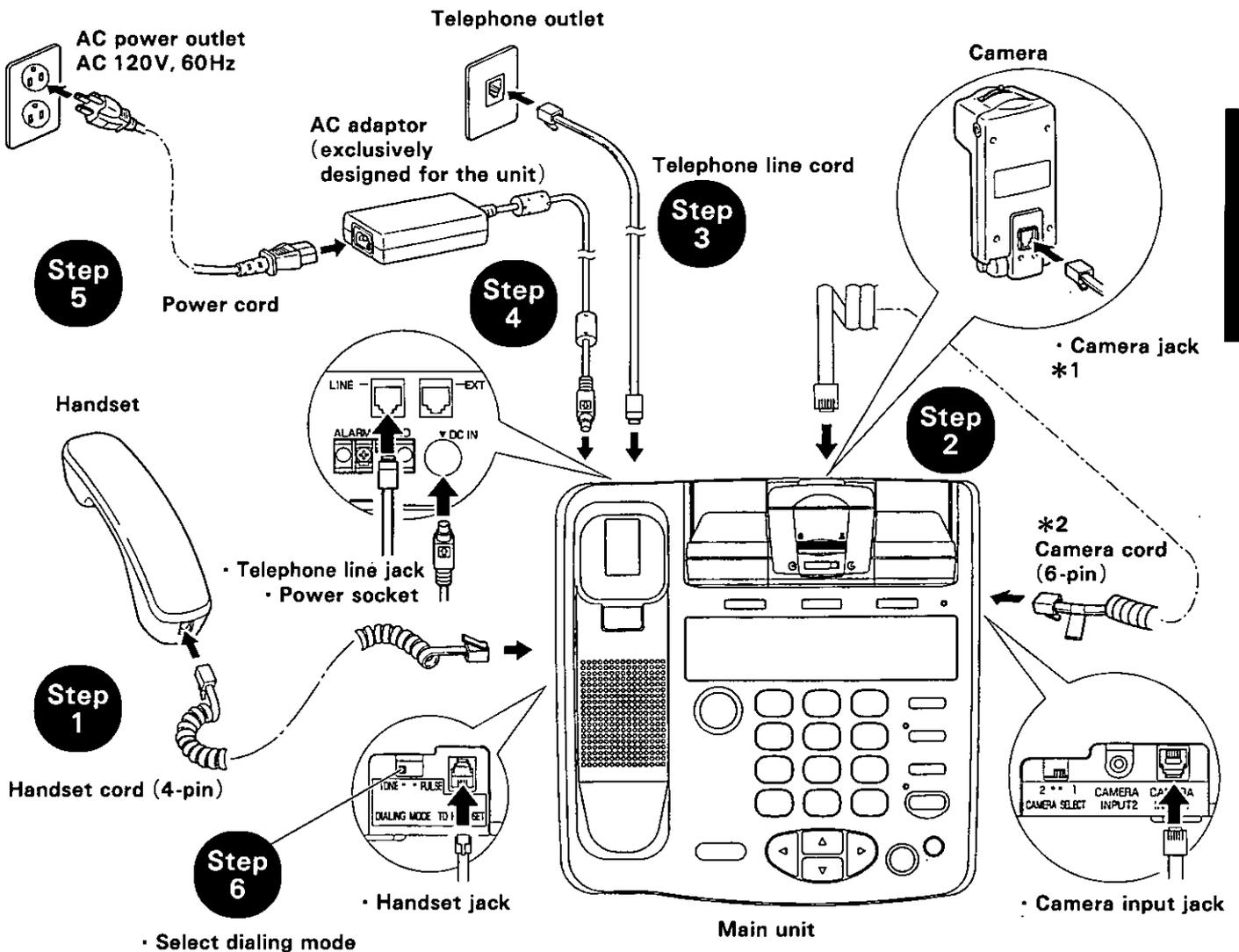
- Set dialing mode switch to TONE.
- If you cannot dial, set to PULSE.



Note:

- Plug the power cord into the AC power outlet after plugging the AC adaptor into the main unit. (Plugging in the power cord first could cause a malfunction.)
- Plug the camera cord into the main unit and the camera before connecting the power cord. (The camera may not work properly if the camera cord is plugged in with the power connected.)

Connection/Initial Setup



Getting Started

Connecting and disconnecting the cords

- Insert the telephone line cord, camera cord and handset cord until they click into place inside the respective jacks.
- To disconnect the cords, press the lever and disengage.



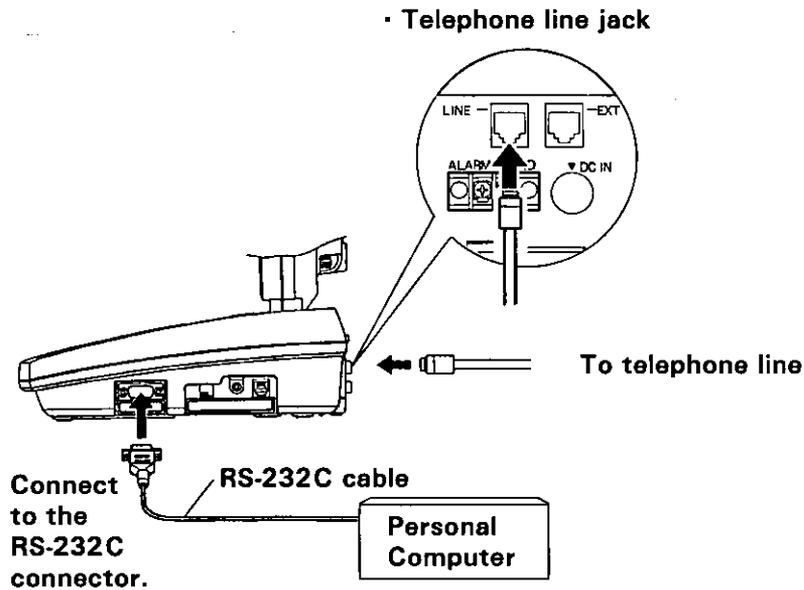
*1 Do not connect the telephone line cord to this jack by mistake.
The camera may malfunction as a result.

*2 The camera cord and handset cord do not have the same number of pins.
Check which one is which before connecting these cords.
(The camera cord is the one with the tag.)

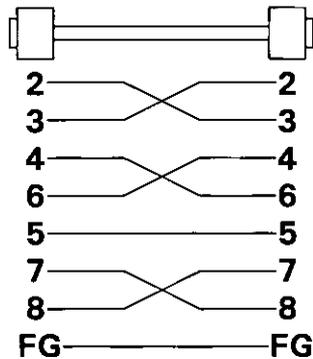
Connection/Initial Setup

■ Optional Connections

● Connecting the Unit to a Personal Computer

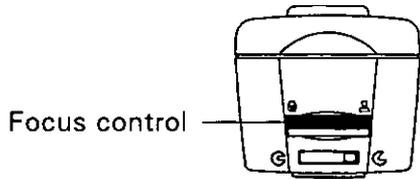


- The unit serves as the data terminal equipment for the personal computer.
- To connect the unit with a personal computer, use an RS-232C cable with the wiring specifications shown below.



■ Adjusting the Camera Focus

The focus control can be turned clockwise or counterclockwise to adjust the focus from about 2 inches (5 cm) to infinity.

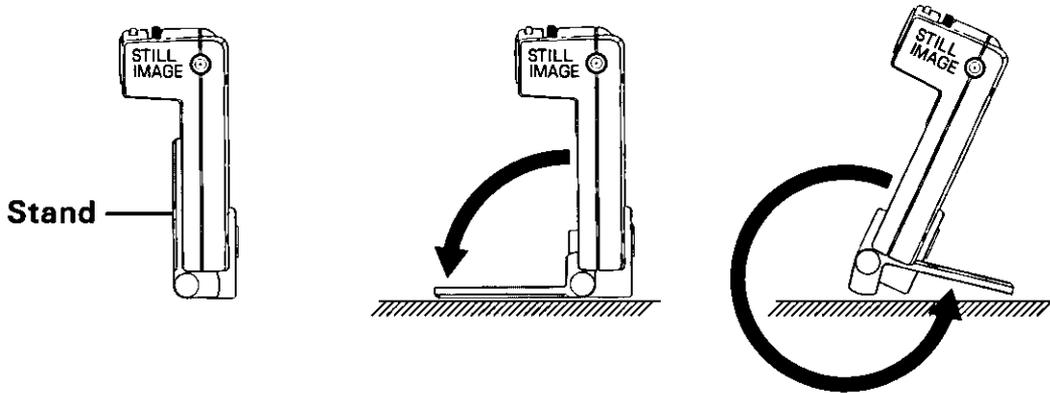


-  direction: Nearby objects are brought into focus.
-  direction: Faraway objects are brought into focus.

- The position at which the focus is adjusted to the infinite is where the focus control has been slightly returned after it has been turned clockwise as far as it will go.
- Focusing during communication is easier if your own image is selected by pressing **SELF VIEW** and **CLARITY / MOTION** is set to maximum movement (See page 24 and 25).

■ Adjusting the Camera Angle

When the camera is to be detached from the main unit for use, the camera's angle can be adjusted by manipulating the stand.



■ Adjusting the Video Display

1. Set viewing angle.

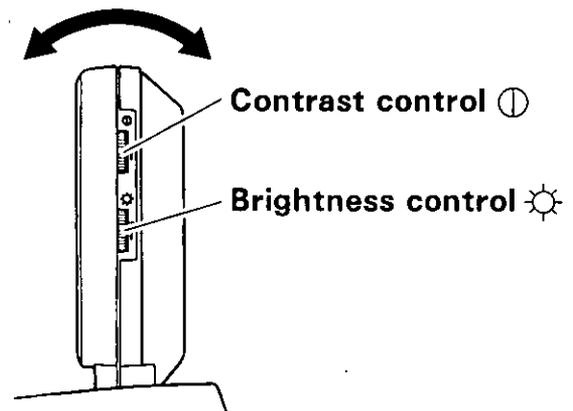
- Press **SELF VIEW** to select your own image.
- Adjust viewing angle by manipulating the LCD block.

2. Set contrast.

- Turn the knob up to increase the contrast.
- Turn the knob down to decrease the contrast.

3. Set brightness.

- Turn the knob up to increase the brightness.
- Turn the knob down to decrease the brightness.



Date/Time

■ Displaying the Date/Time

- 1 Press **MENU**.
- 2 Press **3** (**DATE/TIME**).
- 3 Press **1** (**DISPLAY**).
- 4 Press the dial button which corresponds to the item number to be set.
 - 1 ... For displaying the date.
 - 2 ... For displaying the time (12-hour basis).
 - 3 ... For displaying the time (24-hour basis).
 - 4 ... No display
- 5 Press **MENU** to exit.
 - The set date or time now appears at the top right of the screen except when "No display" is selected.

```
DATE/TIME DISPLAY
1 DATE
2 TIME (12 HOUR)
3 TIME (24 HOUR)
4 NONE
```

■ Setting the Date and Time

- 1 Press **MENU**.
- 2 Press **3** (**DATE/TIME**).
- 3 Press **2** (**SET**).
- 4 Enter **DATE/TIME** using the dial buttons.
 - Use **▶** or **◀** to move between characters and **▼** or **▲** to move between items.
 - Enter the time.
 - Use **#** to switch between AM and PM (for 12 hour mode only).
 - To set the date, enter the month/day/year in this order.
- 5 Press **ENTER** to complete the registration.
Press **MENU** to exit.

```
DATE/TIME
1 DISPLAY TIME (12 HOUR)
2 SET
```

```
DATE/TIME SET
03/20/97 (MM/DD/YY)
10:25AM (HH:MM)
```

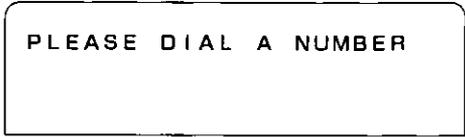
- The accuracy of the clock will be approximately ± 60 seconds a month.

Making a Voice Call

There are two ways to make a call: pick up the handset and call or press **SP-PHONE** while the handset is kept on the hook.

1 Pick up the handset or press **SP-PHONE**.

2 Dial a telephone number.
 ● The telephone number may consist of up to 32 digits.



3 Speak into handset or MIC.

4 To end call, hang up the handset or press **SP-PHONE**.

Last number redial

● Press **REDIAL** to call the last number dialed.

Voice mute

● Press **MUTE** to mute the sound at your end. "MUTE" appears at the top left of the screen, and the other party no longer receives any sound from your end. To resume talking, press **MUTE** again.

Volume (Handset / Speaker)

● The volume can be adjusted using **▲** and **▼**.



To switch between the handset and speakerphone

● To switch from handset to SP-phone, press **SP-PHONE** and place the handset back.

To switch from SP-phone to handset, simply pick up the handset.

Note: The handset and speakerphone cannot be used at the same time.

Entering pauses

● If **REDIAL** is pressed during dialing, a pause (,) is inserted.

A pause (,) produces a 2 second pause.

⟨Example⟩

NUMBER : 9, 0987654321

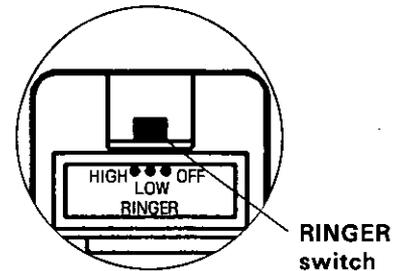


Answering a Voice Call

- 1** When the ringer sounds, pick up the handset or press **SP-PHONE**.
- 2** Speak into handset or MIC.
- 3** To end call, hang up the handset or press **SP-PHONE**.

Ringer volume

- The ringer volume can be adjusted using the RINGER switch located on the unit's left side panel.



Caller ID

This unit is compatible with a Caller ID service offered by your local telephone company. To use this feature, you must subscribe to a Caller ID service.

Caller ID allows you to view the telephone number of the caller before you answer the phone. The calling party's information will be displayed from the first ring. By using Caller ID, you have the option of whether or not to answer the call depending on the caller.

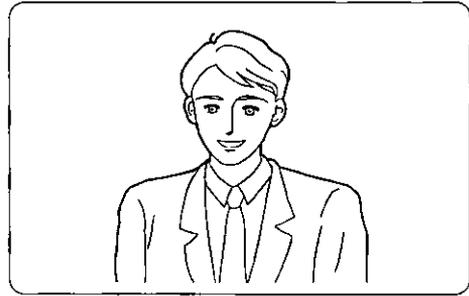
Call waiting

When using the unit like a normal telephone, you can activate the Call waiting service of your local telephone company by pushing the HOOK button within 1 second. For details, consult your local telephone company.

Making a Video Call

1 Press **SELF VIEW**.

- Adjust the camera position and focus while looking at an image of yourself to ensure the image that will be sent to the other party is satisfactory.



2 Pick up the handset or press **SP-PHONE**, and dial the telephone number of the other party.

3 After the other party responds, press **VIDEO** twice while checking the message.

```
START TO CONNECT VIDEO
CONNECT MODE
TRANSMIT RECEIVE
OK:VIDEO CANCEL:UNDO
```

4 The other party presses **VIDEO** twice.

- The video and audio connections are made.
- If the video did not connect or was cut off, reset the transfer rate to a setting which is lower than the one currently used. (See page 42.)

```
START TO CONNECT VIDEO
CONNECT MODE
TRANSMIT RECEIVE
OK:VIDEO CANCEL:UNDO
```

5 Look at the image of the other party as you talk.

- If the video connection is lost (due to poor line conditions), press **VIDEO** twice to reconnect the video.



6 To end call, hang up or press **SP-PHONE**.

- It takes about 30 seconds for the video and audio connections to be made. (This differs depending on the line conditions.)
- The video connection is not made unless **VIDEO** is pressed on both sides.
- **CONNECT MODE**
 - In the connect mode, images cannot be sent unless one end (either sending or receiving) is set to **TRANSMIT** and the other end is set to **RECEIVE**.
 - When communicating between one VICTPRO and another, the end originating the call is automatically set to **TRANSMIT**, and the end receiving the call is set to **RECEIVE**.
 - **TRANSMIT** and **RECEIVE** may not be set automatically in the manner described above when an external telephone is used or when image are sent to or received from the product made by another manufacturer. In this case, first press **VIDEO** once, and then select the **CONNECT MODE**.
- If the caller's own image does not appear in step 1, check connections and initial setup. (See page 16.)

Answering a Video Call

1 When the ringer sounds, pick up the handset or press **SP-PHONE**.

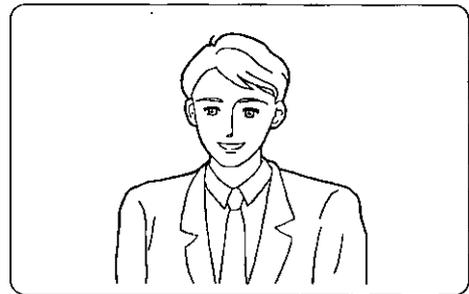
- You can now talk to the other party.

2 The caller now presses **VIDEO** twice on his or her unit to send an image.

3 When you hear the videophone request tone, press **VIDEO** twice.

START TO CONNECT VIDEO
CONNECT MODE
TRANSMIT **RECEIVE**
OK:VIDEO CANCEL:UNDO

4 Look at the image of the other party as you talk.



5 To end call, hang up or press **SP-PHONE**.

Switching Self View

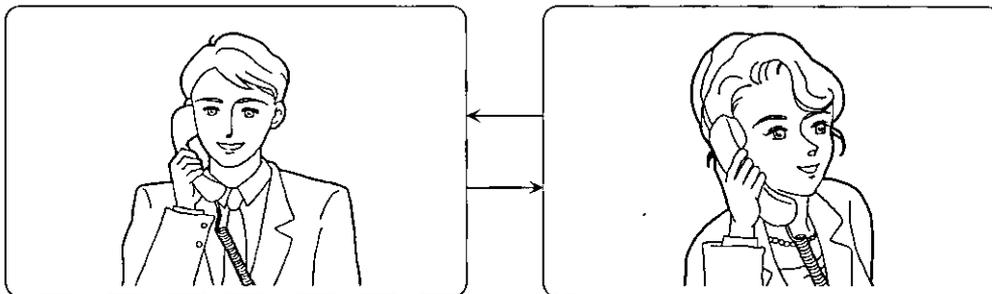
You can check the image of yourself which is being received by the other party by switching between your image and the other party's image.

1 Press **SELF VIEW** during video transmission.

- Each time the button is pressed, the other party's image is replaced on the display by your own image (or vice versa).

Image received from the other party

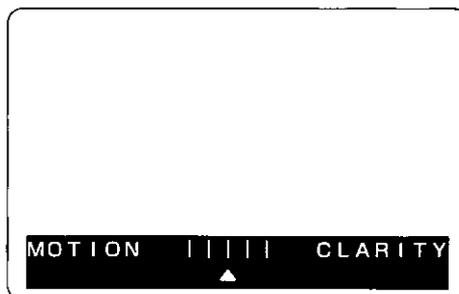
Your own image



Setting Clarity / Motion

Selecting better video clarity or increased video motion.

- 1 Press **CLARITY / MOTION** during video transmission.



- 2 Make the adjustments using **◀** or **▶**.
Motion : The motion aspect is improved but the clarity aspect deteriorates.
Clarity : The clarity aspect is improved but the motion aspect deteriorates.

- 3 Press **CLARITY / MOTION** again to clear the display.
 - The display is automatically cleared after 5 seconds.

Producing a Still Image

Producing a still image of the image displayed.

- 1 Press **STILL IMAGE** during video transmission.
 - The other party's image appears as a still image with enhanced video clarity.



- 2 To return to a moving image, press **STILL IMAGE** again.
 - When sending your own image as a still image, press **SELF VIEW**.
If **STILL IMAGE** is pressed when your own image appears, a still image of yourself will be sent to the other party.

Video Privacy Mode

Terminating the video transmission.

1 Press **VIDEO** during video transmission.

- Transmission of your image is terminated, and the other party's screen turns blue and displays PRIVACY.
- The other party's image is still received.
- While no pictures are being sent, the VIDEO button lamp is off and "PRIVACY" appears at the top left of the screen.



(The other party's screen)

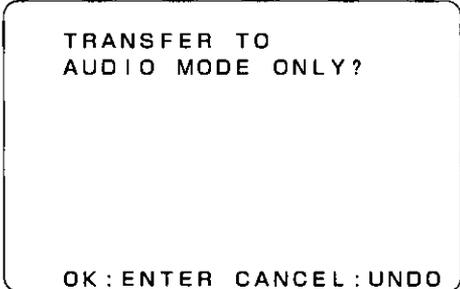
2 To restore the video transmission, press **VIDEO** again.

Switching a Voice Call

You can return to regular telephone mode during video transmission.

1 Press **UNDO** during video transmission.

- To cancel the transit process, press **UNDO**.

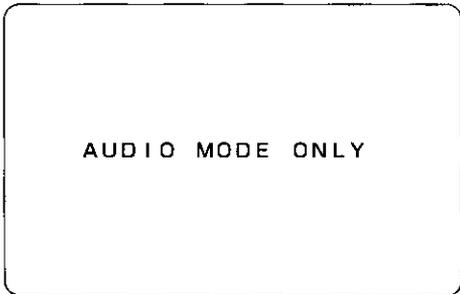


TRANSFER TO
AUDIO MODE ONLY?

OK:ENTER CANCEL:UNDO

2 Press **ENTER**.

- You return to regular telephone mode (audio only).
- To resume video transmission, press **VIDEO** twice. (See page 23.)



AUDIO MODE ONLY

- It may take some time for the image to appear when you press **VIDEO** twice immediately after returning to regular telephone mode and starting video transmission.

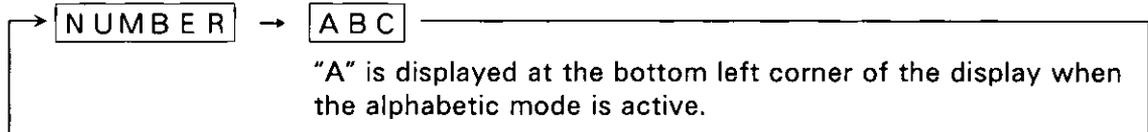
Additional Features

Automatic Dialing

REFERENCE

- Up to 100 telephone number entries can be accommodated:
Name ... 20 characters Number ... 32 digits Memo ... 20 characters

- Entering mode switching
The entering mode is switched each time **NUM LOCK** is pressed.



- Character corrections
A space is inserted at the cursor position when **INS** is pressed.
The character at the cursor position is deleted when **DEL** is pressed, and the following character is moved back to fill the resulting space.

Screen display Dial button	NUMBER (No display)	ABC ("A" is displayed)
①	1	
②	2	A B C
③	3	D E F
④	4	G H I
⑤	5	J K L
⑥	6	M N O
⑦	7	P Q R S
⑧	8	T U V
⑨	9	W X Y Z
①	0	
*	*	· - /
#	#	□ · · space

Automatic Dialing

■ Storing Phone Numbers for Automatic Dialing

1 Press **MENU**.

2 Press **1** (**DIRECTORY**).

3 Press **1** (**ADD**).

4 Enter **NAME**, **NUMBER** and **MEMO** using the dial buttons.

- Use **▶** or **◀** to move between characters and **▼** or **▲** to move between **NAME**, **NUMBER** and **MEMO**.

NAME	: JACK
NUMBER	: 1 2 3 4 5 6 7 8 9 0
MEMO	: PANASONIC

〈Entering example〉

NAME : JACK

J ... Press **5** once.

A ... Press **2** once and press **▶**.

C ... Press **2** 3 times.

K ... Press **5** twice.

※When entering another character using the same button, press **▶** first and then press the button concerned.

NUMBER : 1, 2, 3 9, 0, *, #

Press **▼** to move the cursor to NUMBER.

Press 1, 2, 3, ... 9, 0, *, #.

MEMO : Panasonic

Press **▼** to move the cursor to MEMO.

Enter the memo using the same procedure as above for NAME.

5 Press **ENTER** to complete the registration.

- "STORING" is displayed.

6 Press **MENU** to exit.

Entering pauses

- If **REDIAL** is pressed during entering a telephone number, a pause (,) is inserted.

A pause (,) produces a 2 second pause.

〈Example〉

NUMBER : 9, 0987654321

Line access code _____ | Telephone number _____

PAUSE

■ Changing a Phone Number

- 1 Press **MENU**.
- 2 Press **1** (**DIRECTORY**).
- 3 Press **2** (**CHANGE**).
- 4 Enter the search characters (part of other party's name), and press **ENTER**.
 - If **ENTER** is pressed without entering the search letters, all the registered names are displayed.
- 5 Select the item to be changed using **▼** or **▲**, and press **ENTER**.
- 6 Change the **NAME**, **NUMBER** and **MEMO** using the dial buttons.
 - Follow the same procedure as that for registering telephone numbers.
- 7 Press **ENTER** to complete the registration.
 - "STORING" is displayed.
- 8 Press **MENU** to exit.

JACK
JANE
KAMIRA
KETTY

NAME	: JACK
NUMBER	: 1 2 3 4 5 6 7 8 9 0
MEMO	: PANASONIC

■ Deleting a Phone Number

- 1 Press **MENU**.
- 2 Press **1** (**DIRECTORY**).
- 3 Press **2** (**CHANGE**).
- 4 Enter the search characters (part of other party's name), and press **ENTER**.
 - If **ENTER** is pressed without entering the search letters, all the registered names are displayed.

Automatic Dialing

- 5** <When 1 line is to be deleted>
Select the item to be deleted using **▼** or **▲**,
and press **DEL**.

The message to the right now appears.

<When all the directory entries are to be deleted>

Press **REDIAL**.

The message to the right now appears.

- To cancel the deletion process, press **UNDO**.

CAUTION!
SELECTED ITEM
WILL BE DELETED.

CAUTION!
ALL DIRECTORY LISTS
WILL BE DELETED.

- 6** Press **ENTER**.

- The entire directory is deleted.

- 7** Press **MENU** to exit.

■ Making Voice Calls Using Automatic Dialing

Any of the parties registered in the directory can be selected and called.

- 1** Press **DIRECTORY**.

- 2** Enter the search letter(s) (part of other party's name), and press **ENTER**.

- The name corresponding to the search letter(s) is displayed.
- If **ENTER** is pressed without entering the search letters, all the registered names are displayed.
- The previous screen is restored when **UNDO** is pressed.

SEARCH: ■

- 3** Select the other party using **▲** and **▼**, and pick up the handset, or press either **SP-PHONE** or **ENTER**.

- The number is dialed automatically.

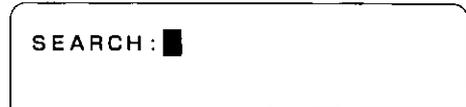
JACK
JANE
KAMIRA
KETTY

■ Making Video Calls Using Automatic Dialing

Video calls can be made to other parties registered in the telephone directory.

1 Press **DIRECTORY**.

2 Enter the search letters (part of other party's name), and press **ENTER**.



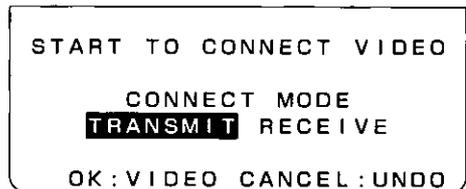
- The name corresponding to the search letters is displayed.
- If **ENTER** is pressed without entering the search letters, all the registered names are displayed.

3 Select the other party using **▲** and **▼**, and pick up the handset, or press either **SP-PHONE** or **ENTER**.



- The number is dialed automatically.

4 After the other party responds, press **VIDEO** twice.



5 Look at the image of the other party as you talk.



6 To end call hang up or press **SP-PHONE**.

Communication Logs

■ Switching the Log ON/OFF

Log monitoring of incoming and outgoing calls can be turned ON or OFF.

1 Press **MENU**.

2 Press **2** (**LOG**).

- The current setting is shown on the right of the screen.

```

TELEPHONE  VIDEOPHONE
RS-232C    OTHERS

LOG
1 LIST
2 SET                                     ON
    
```

3 Press **2** (**SET**).

4 Press **1** or **2**.

- 1** ON ... A log is kept.
- 2** OFF ... A log is not kept.

5 Press **MENU** to exit.

- The log can store the details of up to 20 calls. Once the number of calls exceeds 20, the calls already logged are deleted in sequence starting with the oldest.

■ Displaying the Log List

1 Press **MENU**.

2 Press **2** (**LOG**).

3 Press **1** (**LIST**).

- A list of the incoming and outgoing calls is now displayed.
- Screen messages:
 - "T": Transmission (calls outgoing)
 - "R": Reception (calls incoming)
 - "E": Error (when the other party is speaking in the auto answering mode)
 - "A": Alarm (when an alarm is transmitted or received)
- Unless a subscription has been established with a caller ID service, the telephone numbers of the callers will not be registered when the calls are received. However, when an alarm is received, the telephone number which the caller previously entered using the alarm setting will be registered.

```

TELEPHONE  VIDEOPHONE
RS-232C    OTHERS

LOG LIST
1 01/11 10:20AM R
    345678901234567890
2 02/06 10:25AM R
  A 112222333344445555
3 03/18 05:36PM T E
    341234173412341234
    ALL CLEAR:REDIAL
    
```

- 4 Scroll through the list using **▼** or **▲**.
- 5 Press **MENU** to exit.

■ Deleting the Log List

- 1 Press **MENU**.
- 2 Press **2** (LOG).
- 3 Press **1** (LIST).
 - The list of the incoming and outgoing call is now displayed.
- 4 Press **REDIAL**.
 - To cancel the deletion process, press **UNDO**.
- 5 Press **ENTER**.
 - All the log lists are deleted.
- 6 Press **MENU** to exit.

```
TELEPHONE  VIDEOPHONE
RS-232C    OTHERS
LOG LIST
1 01/11 10:20AM R
   345678901234567890
2 02/06 10:25AM R
  A 112222333344445555
3 03/18 05:36PM T E
   341234173412341234
   ALL CLEAR:REDIAL
```

```
CAUTION!
ALL LOGS LISTS
WILL BE DELETED.

OK:ENTER CANCEL:UNUO
```

Video / Audio

■ Video Input Switching

1 Press **MENU**.

2 Select **VIDEOPHONE** using **▶**.

TELEPHONE	VIDEOPHONE
RS-232C	OTHERS
1 VIDEO INPUT	CAMERA
2 AUDIO INPUT	INT.
3 AUDIO OUTPUT	ALL
4 CAMERA BACKLIGHT	4
5 FAR END CONTROL	OFF
6 SCREEN SAVE	ON
7 MAX SPEED	28800BPS

The current setting appears here.

3 Press **1** (VIDEO INPUT).

VIDEO INPUT
1 CAMERA
2 VIDEO1
3 VIDEO2

4 Press the dial button which corresponds to the item number to be set.

- 1** CAMERA... When the camera provided with the unit or an external camera is to be used
- The slide switch on the right view of the unit is used to switch between the camera provided with the unit and an external camera.

CAMERA INPUT 1 connector
(Camera provided with unit)



CAMERA INPUT 2 connector
(External camera)
(See page 14)

- 2** VIDEO 1 } ... When an external camera or video unit is to be used
- 3** VIDEO 2 }
- The **2** VIDEO 1 connector and **3** VIDEO 2 connector are located at the back of the unit.
(See page 15)

5 Press **MENU** to exit.

■ Audio Input Switching

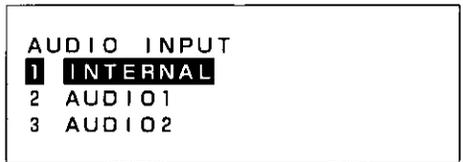
1 Press **MENU**.

2 Select **VIDEOPHONE** using **▶**.



The current setting appears here.

3 Press **2** (**AUDIO INPUT**).



4 Press the dial button which corresponds to the item number to be set.

- 1** INTERNAL ...When the handset or built-in microphone provided with the unit is to be used
- 2** AUDIO 1 } ... When external devices are to be used
- 3** AUDIO 2 }
- The **2** AUDIO 1 connector and **3** AUDIO 2 connector are located at the back of the unit.
(See page 15)
- The settings for **2** and **3** are valid only in the video transmission mode.
The unit will automatically switch over to INTERNAL in the telephone mode and return to the settings for **2** or **3** when video transmission starts, even if the **2** or **3** setting has been selected.

5 Press **MENU** to exit.

Video / Audio

■ Audio Output Switching

1 Press **MENU**.

2 Select **VIDEOPHONE** using .

```
TELEPHONE  VIDEOPHONE
RS-232C    OTHERS
1 VIDEO INPUT  CAMERA
2 AUDIO INPUT  INT.
3 AUDIO OUTPUT  ALL
4 CAMERA BACKLIGHT  4
5 FAR END CONTROL  OFF
6 SCREEN SAVE    ON
7 MAX SPEED     28800BPS
```

The current setting appears here. 

3 Press **3** (**AUDIO OUTPUT**).

```
AUDIO OUTPUT
1 INTERNAL
2 EXTERNAL
3 ALL
```

4 Press the dial button which corresponds to the item number to be set.

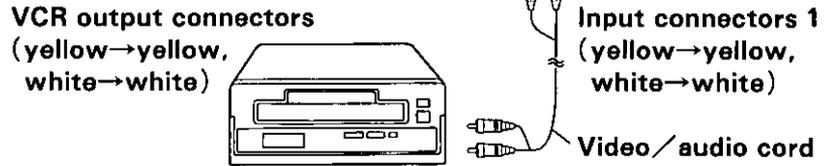
- ① INTERNAL ...When the handset or built-in speaker provided with the unit is to be used
- ② EXTERNAL...When external devices are to be used
 - The sound is also output from the handset.
 - The external audio output connectors are located at the back of the unit. (See page 15)
- ③ ALLWhen both the handset or built-in speaker and external devices are to be used
 - Audio is not output from the audio output connectors when the unit is in telephone mode.

5 Press **MENU** to exit.

■ Sending Images on a Videotape

Video and audio can be sent from a VCR unit.

● Preparation: Connect the VCR unit as shown in the figure below.



1 Set the power switch of the VCR unit to ON, and locate the part of the video tape containing the images to be sent.

2 Press **MENU** during video transmission.

3 Select **VIDEOPHONE** using **▶**.

1	VIDEO INPUT	CAMERA
2	AUDIO INPUT	INT.
3	AUDIO OUTPUT	ALL
4	CAMERA BACKLIGHT	4
5	FAR END CONTROL	OFF
6	SCREEN SAVE	ON
7	MAX SPEED	28800BPS

4 Press **1** (VIDEO INPUT).

5 Select the video input connector **2** (VIDEO 1) or **3** (VIDEO 2) to which the VCR has been connected.

VIDEO INPUT		
1	CAMERA	
2	VIDEO1	
3	VIDEO2	

6 Press **2** (AUDIO INPUT).

1	VIDEO INPUT	VIDEO1
2	AUDIO INPUT	INT.
3	AUDIO OUTPUT	ALL
4	CAMERA BACKLIGHT	4
5	FAR END CONTROL	OFF
6	SCREEN SAVE	ON
7	MAX SPEED	28800BPS

7 Select the audio input connector **2** (AUDIO 1) or **3** (AUDIO 2) to which the VCR has been connected.

AUDIO INPUT		
1	INTERNAL	
2	AUDIO1	
3	AUDIO2	

8 Press the play button on the VCR.

● Images and sound from the videotape are now sent.



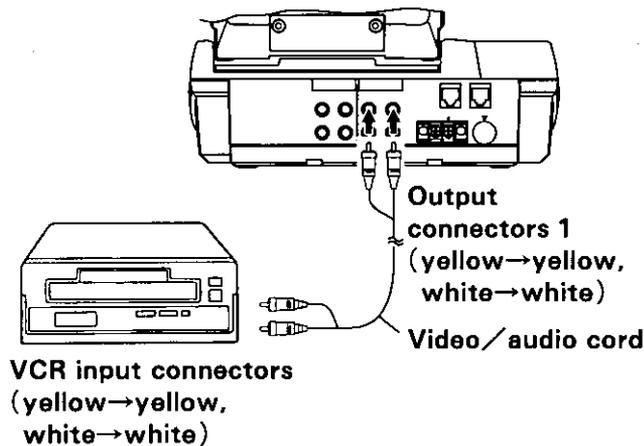
9 To stop the transmission of the videotape images, select the video input to **1** (CAMERA) and select the audio input to **1** (INTERNAL), and turn off the VCR unit.

Video / Audio

■ Recording onto Videotape

The images sent from the other party can be recorded onto videotape.

● Preparation: Connect the VCR as shown in the figure below.



Audio output connector 1: Only the sound sent by the other party is output here.

Audio output connector 2: Both the sound sent by the other party and the sound at the unit's end are output here.

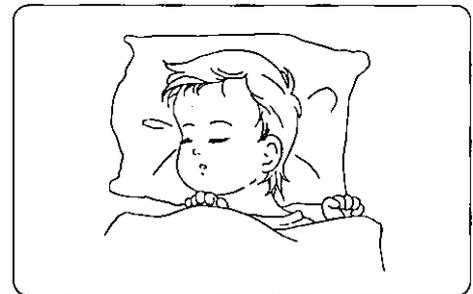
* Use audio output connector 1 when the other party's sound is to be output from the speaker of a TV, etc.

Howling may occur if audio output connector 2 is used instead for this purpose.

1 Set the power switch of the connected VCR unit to ON, and load the video tape.

2 Press the record button on the VCR unit when the images to be recorded has appeared.

- The **STILL IMAGE** can be pressed to record the image as a still image.



3 To stop recording, press the stop button on the VCR unit.

Internal Camera

■ Adjusting the Camera Backlight

This function is only for when using the camera provided with this unit.

1 Press **MENU**.

2 Select **VIDEOPHONE** using **▶**.

```
1 VIDEO INPUT   CAMERA
2 AUDIO INPUT   INT.
3 AUDIO OUTPUT  ALL
4 CAMERA BACKLIGHT 4
5 FAR END CONTROL OFF
6 SCREEN SAVE   ON
7 MAX SPEED     28800BPS
```

The current setting appears here.

3 Press **4** (**CAMERA BACKLIGHT**).

```
      DARK | | | | | | | LIGHT
           ▲
CAMERA BACKLIGHT ( 4 )
```

4 While viewing the screen, adjust the camera backlight using **▶** or **◀**.

- If the screen is too bright, move the cursor toward DARK; conversely, if the screen is too dark, move it toward LIGHT.
- The image is switched after a delay of 1 to 3 seconds.

5 Press **MENU** to exit.

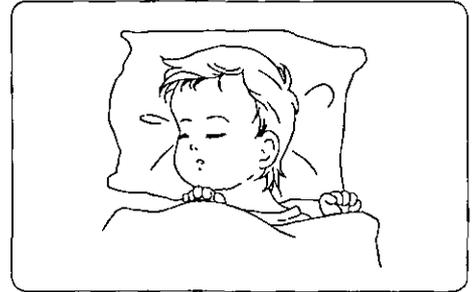
Internal Camera

■ Detaching the camera for operation

An image of your choice can be sent by using the detachable camera.

1 Press **SELF VIEW** during video transmission.

2 Adjust the camera's position and focus, and check the image to be sent.



3 Press **SELF VIEW** again so that the other party's image appears.

4 Return the camera to its original position.

■ Sending a Still Image

1 Press **SELF VIEW** during video transmission.

2 Press camera's **STILL IMAGE**.



● The still image is now sent.

3 To return to a moving image, press **STILL IMAGE** again.

4 Press **SELF VIEW** again so that the other party's image appears.

Setting the Screen Save Mode

To protect the LCD, the screen can be set so that it turns itself off when the unit is not being used to communicate.

1 Press **MENU**.



2 Select **VIDEOPHONE** using **▶**.



The current setting appears here.

3 Press **6** (**SCREEN SAVE**).



4 Press **1** or **2**.

1 ONThe screen turns itself off (SCREEN SAVE) when no communication or key operation has occurred during the set time. Using the dial buttons, enter the time (1 to 60 minutes) and press **ENTER** after which the SCREEN SAVE function is activated.

2 OFFThe SCREEN SAVE function is not activated.

5 Press **MENU** to exit.

Additional Features

- The SCREEN SAVE function is released when an incoming call is received or when any operation is performed.
- When "ON" has been set for SCREEN SAVE, the screen of a TV etc. connected to the video output connectors, turns itself off with the screen of the LCD.
- When the screen save function has been turned off, the service life of the LCD and the connected TV will be shortened. Keeping the same display on the screen for a prolonged period of time can result in a burned-in image on the screen (in which the screen is partially discolored). Leave the screen save ON unless it is necessary to keep the screen save function off for some reason.

Setting the Transmission Speed

The Transmission Speed can be set in accordance with the conditions of the line. If video does not connect or is cut off, select a lower transfer rate.

1 Press **MENU**.

- Note: Transmission Speed can not be changed during video call.

2 Select **VIDEOPHONE** using .

```
TELEPHONE  VIDEOPHONE
RS-232C    OTHERS
1 VIDEO INPUT  CAMERA
2 AUDIO INPUT  INT.
3 AUDIO OUTPUT ALL
4 CAMERA BACKLIGHT 4
5 FAR END CONTROL OFF
6 SCREEN SAVE  ON
7 MAX SPEED  28800BPS
```

The current setting appears here. 

3 Press **7** (**MAX SPEED**).

```
TELEPHONE  VIDEOPHONE
RS-232C    OTHERS

MAX SPEED
1 33600BPS
2 28800BPS
3 19200BPS
4 14400BPS
```

4 Press the dial button which corresponds to the transfer rate to be set.

5 Press **MENU** to exit.

- Connection takes place at the communication speed selected by the person initiating the transmission (usually the person who makes the call).
- According to the condition of the line, the transfer rate is automatically set to a setting which is lower than the current setting and the video and audio is connected.

Auto answering

■ Setting the Auto Answer Mode

When the unit is called from the monitoring end, this function automatically connects the line and receives both the video and audio signals without picking up the handset.

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **1** (**AUTO ANSWER**).

The auto answer menu now appears, and the current settings are indicated at the right of the screen.

AUTO ANSWER		
1	AUTO ANSWER	OFF
2	RING LENGTH	2
3	VIDEO	MOTION
4	AUDIO	STANDARD
5	AUTO ANSWER PROGRAM	

4 Press the dial button corresponding to the item to be set.

5 <Setting Details>

1. AUTO ANSWER

1 ON ... The automatic answering function is enabled.

2 OFF ... The automatic answering function is disabled.

- The ON setting must be used when the unit is used as the camera of a monitoring system.
- When "ON" has been set, no conversation with the calling party is possible until the video connection is made.
- Settings 2 to 4 below are valid only when AUTO ANSWER has been set to ON.

2. RING LENGTH

Set the number of rings (1 to 9) required for the call to be automatically connected. Enter this number (1 to 9) using one of the dial buttons, and press the **ENTER** button.

3. VIDEO

1 MOTION ... A moving picture is transmitted.

2 STILL ... A still picture is transmitted.

3 NONE ... No picture is transmitted.

4. AUDIO

1 MUTE ... No sound is transmitted.

2 STANDARD ... Sound is transmitted.

When calls are answered automatically, this unit and the device connected to the RS-232C connector can be controlled. (For details, see page 60.)

6 Press **MENU** to exit.

Auto Answering

■ Setting Password

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **3** (**PROTECTION**).

The protection function setting menu now appears, and the current settings are shown on the right of the screen.

PROTECTION	
1 SECURITY	NONE
2 PASSWORD	OFF
3 CHANGE PASSWORD	

4 Press the dial button corresponding to the item to be set.

5 <Setting Details>

1. PASSWORD

① ON

The user at the monitoring end is prompted to enter the password when a call is received in the auto answering mode. (The password must be set in advance. Refer to CHANGE PASSWORD in setting 2.)

② OFF

Pictures are sent automatically without a password when a call is received in the auto answering mode.

2. CHANGE PASSWORD

This item is for setting and changing the password.

① When a password has already been set, enter the current password, and press

ENTER.

TELEPHONE	VIDEOPHONE
RS-232C	OTHERS
CURRENT PASSWORD	
PASSWORD: ■	

② Enter the new password (max. 8 digits)

using the dial buttons, and press **ENTER**.

TELEPHONE	VIDEOPHONE
RS-232C	OTHERS
CHANGE PASSWORD	
NEW PASSWORD: ■	

Auto Answering

5

③ Re-enter the password which was entered in step ②, and press **ENTER**.

TELEPHONE VIDEOPHONE
RS-232C OTHERS

REINPUT PASSWORD
PASSWORD: ■

- Each time a character is entered in the password entering column, an asterisk (*) appears.
- Only numbers may be entered as the password. (*) and # cannot be used.
- Take care not to forget the password which has been set.

6

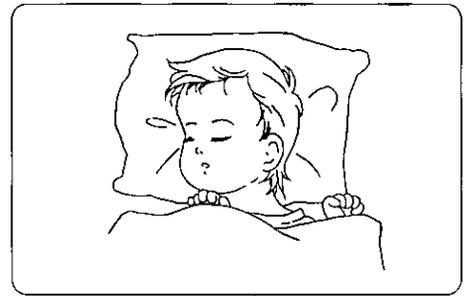
Press **MENU** to exit.

Auto Answering

■ Making Video Calls to Auto Answer End

- 1 Pick up the handset or press **SP-PHONE**.
- 2 Dial the telephone number of the other end using the dial buttons.
- 3 After the other party responds, press **VIDEO** twice while checking the message.

- 4 An image of the other end is now displayed.
 - Your own image also appears on the screen of the other end's unit.



- 5 Hang up handset or press **SP-PHONE** to end the transmission.

When PASSWORD has been set to ON, the user at the monitoring end is prompted to input the password when a call is received in the auto answering mode.

<Operating procedure at the monitoring end>

- ① Pick up the handset or press **SP-PHONE**, and dial the other party's telephone number.
- ② When the other party responds, press **VIDEO** twice while checking the message.
- ③ Input the preset password and press **ENTER**.
 - A picture of the other party is now sent.
 - * No picture appears if the password is input incorrectly. Input the password correctly.
- ④ Hang up the handset or press **SP-PHONE** to end the transmission.

PASSWORD: ■

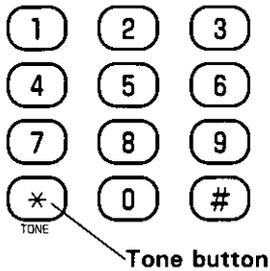
Sending DTMF Keytone

Even if you are using a pulse dialing line, you can still take advantage of the various services (for reserving airline tickets or checking your bank balance) which use tone signals.

1 Dial the number of the desired service.

2 When you are connected, press ***** (TONE) .

- If you are using a tone dialing line, there is no need to press ***** (TONE) .



3 Press the dial buttons corresponding to the sound menu selection heard.

Setting Key Lock

The Key Lock function prevents unauthorized parties from changing the settings arbitrarily or using the directory and other personal information.

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **3** (**PROTECTION**).
The protection function setting menu now appears, and the current settings are shown on the right of the screen.

```
PROTECTION
1 SECURITY          NONE
2 PASSWORD         OFF
3 CHANGE PASSWORD
```

4 Press **1** (**SECURITY**).

```
SECURITY(KEY LOCK)
1 NONE
2 MENU
3 ALL
```

5 Press the dial button which corresponds to the item number to be set.

- 1 NONE ...No security is provided.
- 2 MENU ...Users cannot operate the MENU key.
- 3 ALLThis makes it impossible for the user to use any of the keys, place originating calls or receive incoming calls.

* Note: If AUTO ANSWER was turned on prior to activating "ALL" security then video calls can still be received. (See page 43.)

Unlocking SECURITY

Release Key Lock

- To release the security setting, press **VIDEO**, **MENU** and **DIRECTORY** at the same time.

Restoring Default Settings

The settings made for the items can be restored to the status (default settings) established at the time of purchase.

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **5** (**RESTORE DEFAULT SETTINGS**).

The message shown at the right now appears.

- To cancel this process, press **UNDO**.



4 Press **ENTER**.

- All the settings with the exception of **DIRECTORY**, **LOG**, **DATE/TIME**, **CONTROL PROGRAM** and **PASSWORD** are restored to the default settings.

- After the default settings have been established, the **DIRECTORY**, **LOG** and **DATE/TIME** settings are as follows:

[**DIRECTORY**] ...All the registered data remain.

[**LOG**]The log remains; log setting returns to ON in the default settings.

[**DATE/TIME**] ...The date and time settings remain. However, the time is indicated according to the 12-hour system.

[**PASSWORD**] ...The password which has been set remains but it is set to OFF.

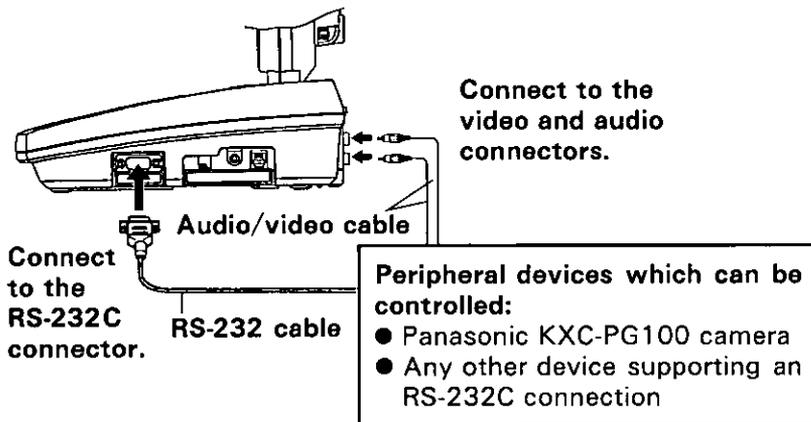
Programming Features

Programming Using the Dial Buttons

The dial buttons can be used to control the main unit and the peripheral device connected to the RS-232C connector by pre-registering commands in the dial buttons.

Note: Alarm program, Dial button program, Auto answer program and Timer program cannot be operated simultaneously. If the programs overlap, the program which was started the first is prioritized and the others are canceled. (If the Alarm program is running, it is prioritized above all the others and the others are canceled.)

■ Connecting a Peripheral Device



Notes:

- The audio/video cable is not included with this unit.
- The special-purpose RS-232C cable (optional accessory) is required in order to connect the Panasonic camera.
- The special-purpose RS-232C cable may also be required in order to connect any other device. (Read the instructions accompanying the device to be connected.)

Canceling Dial Button Program During Operation:

① Press **UNDO** while Dial button program is running.

```
CANCEL
CURRENT OPERATION
OR COMPLETE PROGRAM?

CANCEL :
CURRENT OPERATION
COMPLETE PROGRAM

OK : ENTER CONTINUE : UNDO
```

- **CURRENT OPERATION**
...Only current operation will be canceled.
(The remaining program repeats of current operation will not be canceled.)
- **COMPLETE PROGRAM**
...Entire program will be canceled.

② Select the appropriate item using **▼** and **▲**, then press **ENTER**.

- Operation will be canceled.
- To continue operation, press **UNDO**.

*If you hang up the phone during transmission, only the operation that is running will be canceled.

*The peripheral device may not work properly if Dial button program is canceled during operation.

- Auto answer program, Alarm program and Timer program are canceled following the same procedure.

Programming Using the Dial Buttons

■ Connected Devices / Port Settings

The unit must be set to support the connected device.

1 Press **MENU**.

2 Select **RS-232C** using **▶**.

```
1 DEVICES          OTHERS
2 SET
3 DIAL BUTTON PROGRAM
```

The current setting appears here.

3 Press **1** (DEVICES).

4 Press the button corresponding to the item to be set.

```
DEVICES
1 CAMERA
2 OTHERS
```

1 CAMERA :

When the Panasonic KXC-PG100 camera is connected

2 OTHERS :

When any other device supporting an RS-232C connection is connected

Note: Skip to step 8 when **1** is selected.

5 Press **2** (SET).

```
SET
1 PROCEDURE          MODEM
2 BAUD RATE          9600BPS
3 DATA BITS          8BITS
4 STOP BITS           1BIT
5 PARITY              NONE
```

6 Press the dial button corresponding to the item to be set.

7 <Setting Details>

1. PROCEDURE

1 PC CONTROL

This setting makes it possible to change the unit's communication control menu settings and exercise various forms of control from the personal computer.

* For details, see page 82.

Programming Using the Dial Buttons

7

2 MODEM

When the unit has been connected to a personal computer, this setting enables the unit to work as a modem.

The modem control commands are based on the AT commands.

*For details, see page 80.

3 DATA PASS THROUGH

When the unit has been connected to a personal computer or control device, this setting enables the unit to transfer the data, which has been input to or output from the RS-232C port, straight to the line.

2. BAUD RATE

Select the transfer rate which matches the setting of the other unit connected to the unit.

- | | | | |
|-------------------|------------------|------------------|-----------------|
| 1 38400BPS | 3 9600BPS | 5 2400BPS | 7 300BPS |
| 2 19200BPS | 4 4800BPS | 6 1200BPS | |

*This transfer rate refers to the speed of communication between the unit and the device which is connected to the unit. It is not the speed at which data is transmitted over the line.

3. DATA BITS

Select the data bit length which matches the setting of the other unit connected to the unit.

- 1** 8BITS
- 2** 7BITS

4. STOP BITS

Select the stop bit length which matches the setting of the other unit connected to the unit.

- 1** 1BIT
- 2** 2BITS

5. PARITY

Select the parity which matches the setting of the other unit connected to the unit.

- 1** EVEN
- 2** ODD
- 3** NONE

8

Press **MENU** to exit.

Programming Using the Dial Buttons

■ Far End Control

Enabling/disabling far end control.

1 Press **MENU**.

2 Select **VIDEOPHONE** using **▶**.

```
TELEPHONE  VIDEOPHONE
RS-232C    OTHERS
1 VIDEO INPUT   CAMERA
2 AUDIO INPUT   INT.
3 AUDIO OUTPUT  ALL
4 CAMERA BACKLIGHT 4
5 FAR END CONTROL OFF
6 SCREEN SAVE   ON
7 MAX SPEED    28800BPS
```

The current setting appears here.

3 Press **5** (**FAR END CONTROL**).

```
FAR END CONTROL
1 ON
2 OFF
```

4 Press **1** or **2**.

1 ONFar end control is enabled.

2 OFFFar end control is disabled.

5 Press **MENU** to exit.

Programming Using the Dial Buttons

■ Programming the Dial Buttons

1 Press **MENU**.

2 Select **RS-232C** using **▶**.

```

1 DEVICES          CAMERA
2 SET              FIX
3 DIAL BUTTON PROGRAM
    
```

3 Press **3** (DIAL BUTTON PROGRAM).

4 Press the dial button to be assigned a control command(s).

```

DIAL BUTTON PROGRAM
1 : ██████████ 7 :
2 :             8 :
3 :             9 :
4 :             0 :
5 :             * :
6 :             # :
    
```

5 Select the number of times to repeat the control command.

6 Enter the hex code of control command.
(Refer to page 56 for command codes.)

- Use **NUM LOCK** to switch from alpha to numeric characters.
- Use **DEL** and **INS** to edit commands.
- Press **ENTER** after entering commands.

```

REPEAT: 01 TIMES (CAMERA)
1 : █
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
    
```

OR

Press **◀ ▶ ▼ ▲** to select the command from the screen.

- Press **#** to page down the list of available commands. Press ***** to page up.
- Press **ENTER** after selecting command.
- Use **◀ ▶** to select "OTHER" for remote control or "HERE" for local control.
- Use **▼ ▲** to select "ACTION ONLY" or "SET" to program the action duration.
- Press **ENTER** twice "STORING" is displayed.

```

REPEAT: 01 TIMES (CAMERA)
1 : █
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
    
```

```

REPEAT: 01 TIMES
1 :
CONTROL SIDE
  OTHER HERE
ACTION TIME
  ACTION ONLY
  SET
  00:00:00 (HH:MM:SS)
    
```

7 Press **MENU** to exit.

■ Deleting a Registered Program

- 1 Press **MENU**.
- 2 Select **RS-232C** using **▶**.
- 3 Press **3** (DIAL BUTTON PROGRAM).
- 4 Using **▼** or **▲**, move the cursor to the number of the control program which is to be deleted.
- 5 Press **DEL**.
 - To cancel the deletion, press **UNDO**.
- 6 Press **ENTER**.
 - The program is deleted.

DIAL BUTTON PROGRAM	
1 :	7 :
2 :	8 :
3 :	9 :
4 :	0 :
5 :	* :
6 :	# : VIDEO IN

Programming Using the Dial Buttons

■ Table of Hexadecimal Codes

Camera control commands (KXC-PG100)

Item	HEX CODE		
	Your side	other end	
Pan right start	L40	41	
Pan right stop	L4A (UL4A)	4A (U4A)	
Pan left start	L50	51	
Pan left stop	L4A (UL4A)	4A (U4A)	
Tilt up start	L45	46	
Tilt up stop	L4A (UL4A)	4A (U4A)	
Tilt down start	L55	56	
Tilt down stop	L4A (UL4A)	4A (U4A)	
Zoom in start	L4C	52	
Zoom in stop	L4D (UL4D)	4D (U4D)	
Zoom out start	L4B	42	
Zoom out stop	L4D (UL4D)	4D (U4D)	
Preset register (Camera position memory)	L10 □□	10 □□	□□ : 00~09
Preset move (Camera position move)	L30 □□	30 □□	□□ : 00~09
Back light compensate	L60 □□	60 □□	□□ : 20~49

*“U” is included in all dial button commands. The commands are executed after the dial button is released.

In this case, select “1” for the number of program repeats.

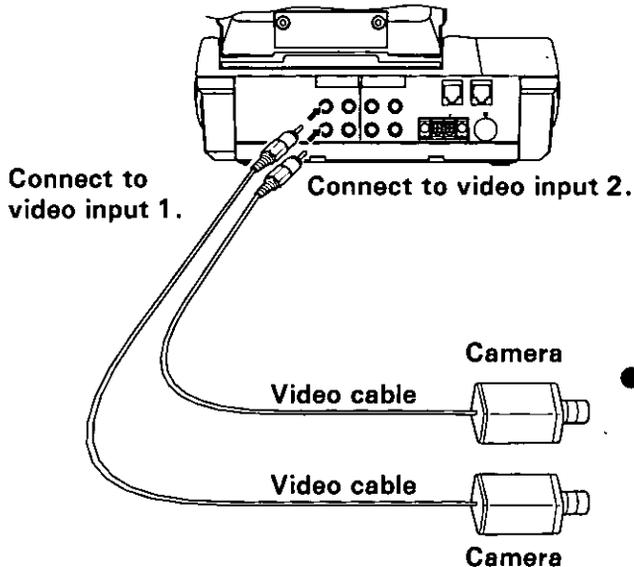
VICT control commands

Item	HEX CODE		
	Your side	other end	
Call	LV100	—	
Password	LV101	—	
Number of redial times	LV102	—	
Redial interval	LV103	—	
Disconnect	LV110	—	
Video input select, switch next input	LV20F	V20F	
Video input select, camera	LV200	V200	
Video input select, video 1	LV201	V201	
Video input select, video 2	LV202	V202	
Audio input select, switch next input	LV30F	V30F	
Audio input select, internal	LV300	V300	
Audio input select, audio 1	LV301	V301	
Audio input select, audio 2	LV302	V302	
Picture quality adjust, best motion	LV220	V220	
Picture quality adjust, more motion	LV221	V221	
Picture quality adjust, standard	LV222	V222	
Picture quality adjust, more clarity	LV223	V223	
Picture quality adjust, best clarity	LV224	V224	
Audio output select, switch next input	LV31F	V31F	
Audio output select, internal	LV310	V310	
Audio output select, external	LV311	V311	
Audio output select, all	LV312	V312	
Still image/moving image select	LV410	—	
Continuous still image	LV420	—	
Own image/other end image select, own image	LV210	—	
Own image/other end image select, other end image	LV211	—	
Pause	T	T	
Repeat interval	IT	IT	

■ Example (Switching between the cameras for monitoring)

● Preparation at the camera end

- Connect the monitoring cameras as shown in the figure below.



- The switches on the monitoring cameras must be kept in the "ON" position at all times.

- Set and check the parameters at the monitoring end.

①	AUTO ANSWER	→ ON	(see page 43)
②	VIDEO	→ MOTION	(see page 43)
③	AUDIO	→ STANDARD	(see page 43)
④	AUTO ANSWER PROGRAM	→ Not set	(see page 60)
⑤	PASSWORD	→ OFF	(see page 44)
⑥	VIDEO INPUT	→ CAMERA	(see page 34)
⑦	AUDIO INPUT	→ INTERNAL	(see page 35)
⑧	FAR END CONTROL	→ ON	(see page 53)

* All the parameters except for ①, and ⑧ were set as shown above at the time of purchase.

Programming Using the Dial Buttons

■ Example (Switching between the cameras for monitoring)

● Preparations at the receiving end

Register the video input switching at the other end (VIDEO INPUT SELECT) in (#).

- 1 Press **MENU**.
- 2 Select **RS-232C** using **▶**.
- 3 Press **3** (DIAL BUTTON PROGRAM).
- 4 Press **#**.
- 5 Press **▼** twice, and press **#** once.
- 6 Select **VIDEO INPUT SELECT** using **▼**, and press **ENTER**.
- 7 Press **1** (SWITCH NEXT INPUT).
- 8 Select **OTHER** using **▶**, and press **ENTER**.
- 9 Check the command, and press **ENTER**.
 - Operation now returns to the screen in step 4.
 - VIDEO IN is now indicated for "#".
- 10 Press **MENU** to exit.

```

1 DEVICES          CAMERA
2 SET              FIX
3 DIAL BUTTON PROGRAM
    
```

```

DIAL BUTTON PROGRAM
1 : ██████████ 7 :
2 :             8 :
3 :             9 :
4 :             0 :
5 :             * :
6 :             # :
    
```

```

REPEAT:01TIMES(VICT)
#:
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV100 PREV.:* NEXT:#
    
```

```

REPEAT:01TIMES(VICT)
#:V20X
VIDEO INPUT SELECT
1 SWITCH NEXT INPUT
2 CAMERA
3 VIDEO1
4 VIDEO2
    
```

```

REPEAT:01TIMES
#:V20X
CONTROL SIDE
OTHER HERE
    
```

The operation command now registered is as follows:

```
V 2 0 F
```

(Selecting the video input at the other end)

Programming Using the Dial Buttons

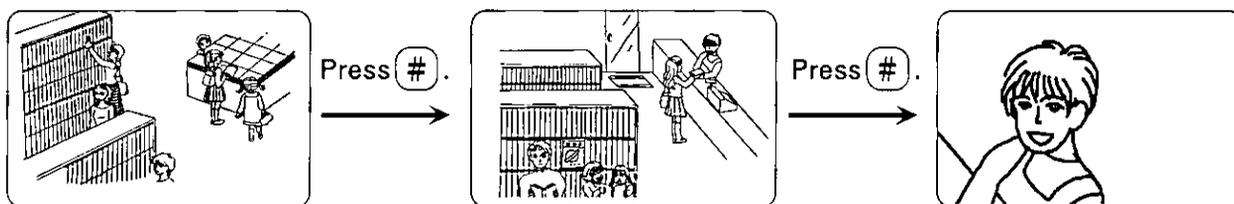
■ Example (Switching between the cameras for monitoring)

● Operating at the receiving end

- 1 Pick up the handset or press **SP-PHONE** .
- 2 Dial the telephone number of the other end using the dial buttons.
- 3 After the other party responds, press **VIDEO** twice while checking the message.
- 4 An image of the other end is now displayed.



- 5 Press **#** to switch between cameras of the location being monitored.



- When **#** is pressed, " # KEY ACCEPT" appears at the top left of the screen.
- Each time **#** is pressed, the picture of the connected camera is switched between "video input 1," "video input 2" and "camera input" in this order.

- 6 To end call hang up or press **SP-PHONE** .

Auto Answering Program

By pre-registering the commands, the unit and the peripheral device connected to the RS-232C connector can be automatically controlled when using the auto answer program feature.

■ Setting Auto Answering Program

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **1** (AUTO ANSWER).

```
AUTO ANSWER
1 AUTO ANSWER          ON
2 RING LENGTH          2
3 VIDEO                MOTION
4 AUDIO                STANDARD
5 AUTO ANSWER PROGRAM
```

4 Press **5** (AUTO ANSWER PROGRAM).

```
REPEAT: 0 TIMES (CAMERA)
COMMAND:
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
```

5 Enter the commands (See page 54)

6 Press **MENU** to exit.

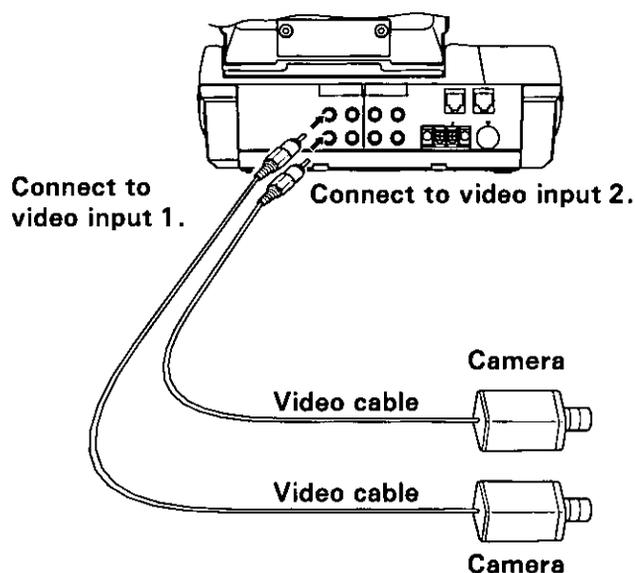
Auto Answering Program

■ Example

When calls are answered automatically, the pictures are switched (between video input 1 and video input 2) at 30-second intervals and sent to the receiving end. This is repeated 10 times.

● Preparation

- Connect the cameras as shown in the figure below.



* The monitoring cameras must be kept "ON" at all times.

- Set and check the parameters.

<Parameters to be set>

- ① AUTO ANSWER → ON (see page 43)
- ② FAR END CONTROL → ON (see page 53)

<Settings to be checked>

- ① VIDEO INPUT → CAMERA (see page 34)
- ② AUDIO INPUT → INTERNAL (see page 35)
- ③ VIDEO → MOTION (see page 43)
- ④ AUDIO → STANDARD (see page 43)
- ⑤ PASSWORD → OFF (see page 44)

* When the unit was purchased, the above settings were already established.
Reset them if the settings have been changed.

Auto Answering Program

- Setting Auto Answer Program at the receiving end

When calls are answered automatically, the pictures are switched (between video input 1 and video input 2) at 30-second intervals and sent to the calling end. This sequence of operations is repeated 10 times.

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

```
1 AUTO ANSWER
2 ALARM
3 PROTECTION
4 TIMER PROGRAM
5 RESTORE DEFAULTS
```

3 Press **1** (AUTO ANSWER).

4 Press **5** (AUTO ANSWER PROGRAM) and enter "10" for REPEAT.

```
REPEAT: 10TIMES(CAMERA)
COMMAND:
PAN RIGHT ZOOM OUT
PAN LEFT PRESET REGI.
TILT UP PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN CAMERA STOP
```

5 Press **▼** twice, and press **#** once.

6 Select VIDEO INPUT SELECT using **▼**, and press **ENTER**.

```
REPEAT: 10TIMES(VICT)
COMMAND:
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
V20X PREV.:* NEXT:#
```

7 Select VIDEO 1 using **▼**, and press **ENTER**.

```
REPEAT: 10TIMES(VICT)
COMMAND: V20X
VIDEO INPUT
1 SWITCH NEXT INPUT
2 CAMERA
3 VIDEO1
4 VIDEO2
```

8 Select HERE using **▶**, and press **ENTER**.

```
REPEAT: 10TIMES(VICT)
COMMAND: V20X
CONTROL SIDE
OTHER HERE
```

9 Press **▼** once, and press **#** once.

Auto Answering Program

10 Select PAUSE using **▼**, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:LV201
PICTURE QUALITY
AUDIO OUTPUT SELECT
STILL/MOTION SELECT
CONTINUOUS STILL IMAGE
PAUSE
```

11 Set 30 seconds (press 000030) for the PAUSE TIME, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:T
PAUSE TIME
00:00:30 (HH:MM:SS)
```

12 Press **▼** once, and press ***** once.

13 Select VIDEO INPUT SELECT using **▼**, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:201 T00H00M1ES
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
V20X PREV.:* NEXT:#
```

14 Select VIDEO 2 using **▼**, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:V20X
VIDEO INPUT
1 SWITCH NEXT INPUT
2 CAMERA
3 VIDEO1
4 VIDEO2
```

15 Select HERE using **▶**, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:V20X
CONTROL SIDE
OTHER HERE
```

16 Press **▼** once, and press **#** once.

17 Select PAUSE using **▼**, and press **ENTER**.

```
REPEAT:10TIMES(VICT)
COMMAND:0H00M1ES LV202
AUDIO OUTPUT SELECT
STILL/MOTION SELECT
CONTINUOUS STILL IMAGE
PAUSE
```

18 Set 30 seconds for the PAUSE TIME, and press **ENTER**.

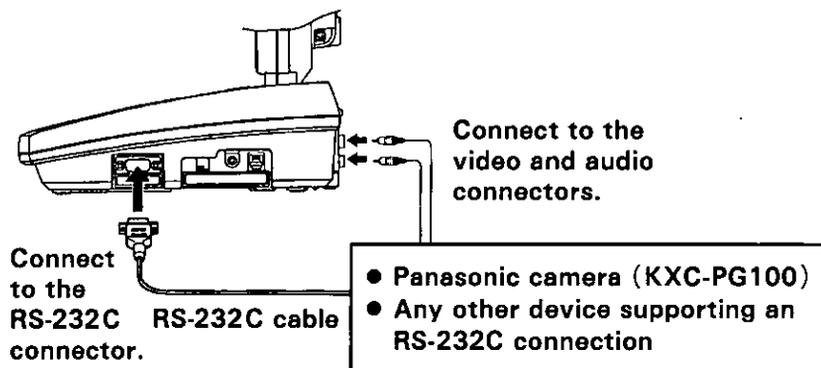
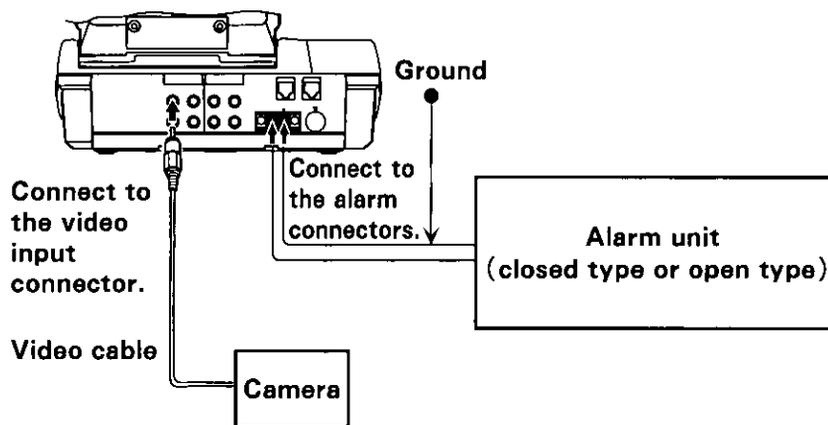
```
REPEAT:10TIMES(VICT)
COMMAND:T
PAUSE TIME
00:00:30 (HH:MM:SS)
```


Alarm Program

By pre-registering the commands, the unit and the peripheral device connected to the RS-232C connector can be automatically controlled when changes in the alarm signals have occurred.

- Note:**
- If there is a change in the signal from the sensor while you are using the unit, the alarm function is prioritized.
 - If you are using an external telephone, the alarm function will not work even if there is a change in the signal from the sensor.

■ Connecting a Peripheral Device



- For details on the settings of the connected device and far end control, refer to "Programming Using the Dial Buttons." (See page 50)

Alarm Program

■ Alarm Settings

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **2** (**ALARM**).
The alarm function setting menu now appears, and the current settings are shown on the right of the screen.

ALARM		
1	ALARM	OFF
2	SILENT MODE	OFF
3	VIDEO	MOTION
4	AUDIO	STANDARD
5	MESSAGE NUMBER	2
6	OUR PHONE NUMBER	
7	ALARM PROGRAM	

4 Press the dial button corresponding to the item to be set.

5 <Setting Details>

1. ALARM

- 1 ON(CLOSE) ...Alarm is activated when circuit is closed.
- 2 ON(OPEN)Alarm is activated when circuit is opened.
 - Select the setting in accordance with the specifications of the alarm detection unit being used.
- 3 OFFThe alarm function is disabled.
 - ON must be set when the unit is to be used as the camera of an alarm security system.

2. SILENT MODE

- 1 ONAudio and Video are not output at the camera end.
- 2 OFFAudio and Video are output at the camera end.

3. VIDEO

- 1 MOTIONA moving picture is transmitted.
- 2 STILLA still picture is transmitted.
- 3 NONENo picture is transmitted.

5

4. **AUDIO**

- ① MUTENo sound is transmitted.
- ② STANDARD ...Sound is transmitted.

5. **MESSAGE NUMBER**

Assign the message which is to appear on the screen at the monitoring end.

- ① NONE (BUZZER)
- ② NONE
- ③ EMERGENCY (BUZZER)
- ④ EMERGENCY
- ⑤ PLEASE CALL (BUZZER)
- ⑥ PLEASE CALL

- When a setting with (BUZZER) is selected, the buzzer will sound.
- When NONE is selected, no messages will be displayed.
- To cancel the message or stop the buzzer sound, press any dial button at the monitoring end.

6. **OUR PHONE NUMBER**

Enter the sender's telephone number displayed on the monitoring end screen using the dial buttons, and press **ENTER**.

7. **ALARM PROGRAM**

Refer to page 68 for the setting procedure.

- Settings 2 to 7 are valid only when "ON" has been set for ALARM in setting 1.
- When an alarm has been received, no input using the buttons at the camera end can be made nor can the communication be terminated until the call is terminated at the monitoring end or until the outgoing call has been completed for the number of redialing times which has been set.

6

Press **MENU** to exit.

Alarm Program

■ Setting Alarm Program

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **2** (ALARM).

```
ALARM
1 ALARM          ON(CLOSE)
2 SILENT MODE    ON
3 VIDEO          MOTION
4 AUDIO          STANDARD
5 MESSAGE NUMBER 3
6 OUR PHONE NUMBER
7 ALARM PROGRAM
```

4 Press **7** (ALARM PROGRAM).

```
(CAMERA)
COMMAND: ■
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
```

5 Register the commands. (See page 54)

6 Press **MENU** to exit.

■ Example

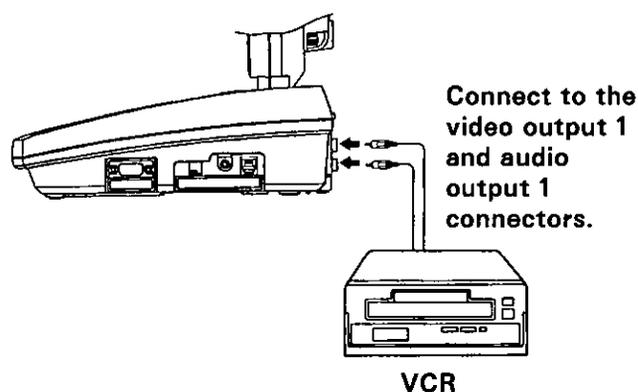
It is possible to monitor what is going on inside an unmanned store, etc.

- When the alarm sensor (security system) at the monitoring camera end is activated, a picture is sent automatically to a preset destination.
- At the receiving end, the pictures sent can be viewed or automatically received and recorded on videotape.

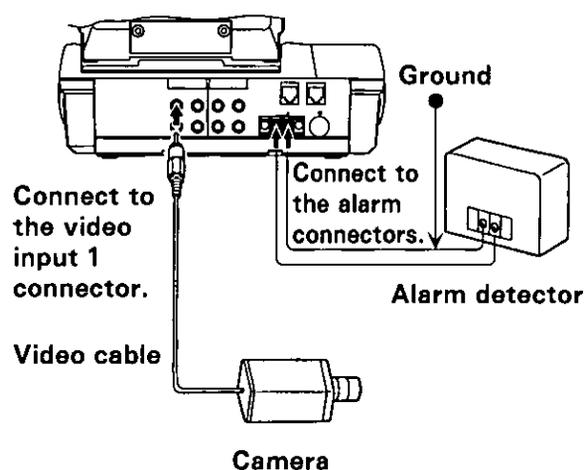
● Preparations

- Connect the alarm security system as shown in the figure below.

Connections at the receiving end



Connections at the camera end



- Set the parameters at the receiving end.

<Parameters to be set>

Set the parameters at the receiving end.

- | | | |
|-----------------------|-----------|---------------|
| ① AUDIO OUTPUT | → ALL | (see page 36) |
| ② AUTO ANSWER | → ON | (see page 43) |
| ③ PASSWORD | → OFF | (see page 44) |
| ④ AUTO ANSWER PROGRAM | → Not set | (see page 60) |

Alarm Program

- Set and check the parameters at the camera end.

<Parameters to be set>

Set the parameters at the camera end.

① VIDEO INPUT → VIDEO 1 (see page 34)

② ALARM → ON (CLOSE) or ON (OPEN) (see page 66)

* Select the setting which matches the specifications of the alarm detector to be used.

<Settings to be checked>

Check the settings established at the camera end.

① AUDIO INPUT → INTERNAL (see page 35)

② VIDEO → MOTION (see page 66)

③ AUDIO → STANDARD (see page 67)

* When the unit was purchased, the above settings were already established.
Reset them if the settings have been changed.

Alarm Program

- Setting Alarm Program at the camera end
Making a call to a specific number when the alarm sensor has been activated

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **2** (**ALARM**).

```
ALARM
1 ALARM           ON(CLOSE)
2 SILENT MODE     ON
3 VIDEO           MOTION
4 AUDIO           STANDARD
5 MESSAGE NUMBER  3
6 OUR PHONE NUMBER
7 ALARM PROGRAM
```

4 Press **7** (**ALARM PROGRAM**).

```
(CAMERA)
COMMAND:
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
```

5 Press **▼** once, and press **#** once.

6 Select **CALL** using **▼**, and press **ENTER**.

```
(VICT)
COMMAND:
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV100  PREV. : * NEXT: #
```

7 Enter the **PHONE NUMBER, REDIAL TIME and INTERVAL**, and press **ENTER**.

* If REDIAL TIME is set, redialing takes place when, for example, the person you are calling is not at home or is speaking over the phone.

* Set more than 1 minute for INTERVAL.

* When PASSWORD has been set to ON at the receiving end, input the preset password for PASSWORD.

```
(VICT)
COMMAND: LV100
SET
PHONE NUMBER: 1111111
PASSWORD:
REDIAL TIME: 2
INTERVAL: 01:30 (MM:SS)
```

8 Check the commands, and press **ENTER**.

9 Press **MENU** to exit.

The operation commands now registered are as follows:

LV100	1111111	LV102 2	LV103	T00H01M1ES
Outgoing call	Telephone number of other end	Twice	Redialing interval	1 minute 30 seconds
		Number of redialing times		

Alarm Program

- Operating at the receiving end
When checking the video and audio which has been sent

1

When the ringer sounds, pick up the handset or press **SP-PHONE .**

- When the unit has been set up for auto answering, the unit is connected automatically.
- It takes about 30 seconds for the video and audio connections to be made.
(Depending on the line conditions.)

2

The monitoring camera's picture now appears.

- When recording the picture onto the VCR, press the VCR's record button and start the recording.



3

After having checked the situation, hang up the handset or press **SP-PHONE to end the transmission.**

Timer Program

By pre-registering the commands, the unit and the peripheral device can be controlled at a designated time.

Note: If you are using the unit or the phone rings during the start up time of the Timer program operation, the Timer program operation will be canceled.

- For details on the connection of a peripheral device to the RS-232C connector, the settings of the connected device and far end control, refer to "Programming Using the Dial Buttons." (See page 50)

■ Switching Timer Program (ON/OFF)

Set the timer program call function ON or OFF.

1 Press **MENU** .

2 Select **OTHERS** using **▶** .

3 Press **4** (**TIMER PROGRAM**).

```
1 AUTO ANSWER
2 ALARM
3 PROTECTION
4 TIMER PROGRAM
5 RESTORE DEFAULTS
```

4 Press **1** (**TIMER PROGRAM**).

```
TIMER PROGRAM
1 TIMER PROGRAM OFF
2 TIMER PROGRAM SET
```

5 Press **1** or **2** .

1 ON ...Programmed calls are made.

2 OFF ...No programmed calls are made.

6 Press **MENU** to exit.

Timer Program

■ Setting Timer Program

- 1 Press **MENU**.
- 2 Select **OTHERS** using **▶**.
- 3 Press **4** (TIMER PROGRAM).
- 4 Press **2** (TIMER PROGRAM SET).
- 5 Press **1** (ADD).
- 6 Press **1** (START TIME).
- 7 Enter the start time and press **ENTER**.
 - Use **#** to switch between AM or PM.
- 8 Press **2** (CONTROL PROGRAM).
- 9 Register the commands. (See page 54)
- 10 Press **MENU** to exit.

```
1 AUTO ANSWER
2 ALARM
3 PROTECTION
4 TIMER PROGRAM
5 RESTORE DEFAULTS
```

```
TIMER PROGRAM
1 TIMER PROGRAM ON
2 TIMER PROGRAM SET
```

```
TIMER PROGRAM SET
1 ADD
2 CHANGE
```

```
1 START TIME
2 CONTROL PROGRAM
```

```
START TIME
1 0 : 25 AM (HH:MM)
```

- More than one program can be registered.
The number of programs which can be registered, however, is limited by the length of each program.

■ Changing Timer Program

1 Press **MENU**.

2 Select **OTHERS** using **▶**.

3 Press **4** (**TIMER PROGRAM**).

```

1 AUTO ANSWER
2 ALARM
3 PROTECTION
4 TIMER PROGRAM
5 RESTORE DEFAULTS
    
```

4 Press **2** (**TIMER PROGRAM SET**).

```

TIMER PROGRAM
1 TIMER PROGRAM      ON
2 TIMER PROGRAM SET
    
```

5 Press **2** (**CHANGE**).

```

TIMER PROGRAM SET
1 ADD
2 CHANGE
    
```

6 The already registered timer program list now appears.

- Use **#** to switch between ON and OFF.
- Use **REDIAL** to delete an entire list.
- Use **DEL** to delete a selected item from the list.
- To change the contents, select an item from the list and press **ENTER**.
Follow the same method as for setting to change the START TIME and PROGRAM.

7 Press **MENU** to exit.

Timer Program

■ Example (Setting timer program)

- 1st step : Connecting to branch store A (telephone number: 111-1111), moving the camera to preset 1, and terminating the transmission after another ten seconds have elapsed.
 - 2nd step : Connecting to branch store B (telephone number: 222-2222), and terminating the transmission after another ten seconds have elapsed.
- The above operations are repeated three times every hour.

- 1 Press **MENU**.
- 2 Select **OTHERS** using **▶**.
- 3 Press **4** (TIMER PROGRAM).
- 4 Press **1** (TIMER PROGRAM).
 - Set TIMER PROGRAM to ON.
- 5 Press **2** (TIMER PROGRAM SET).
Press **1** (ADD).
- 6 Press **1** (START TIME).
- 7 Enter the start time, input AM or PM with **#**, and press **ENTER**.
- 8 Press **2** (CONTROL PROGRAM).
(Refer to the screen shown in step 6)
- 9 Enter "3" for REPEAT.
- 10 Press **▼** twice, and press **#** once.
- 11 Select **CALL** using **▼**, and press **ENTER**.

```

1 AUTO ANSWER
2 ALARM
3 PROTECTION
4 TIMER PROGRAM
5 RESTORE DEFAULTS
  
```

```

TIMER PROGRAM
1 TIMER PROGRAM      ON
2 TIMER PROGRAM SET
  
```

```

TIMER PROGRAM SET
1 ADD
2 CHANGE
  
```

```

1 START TIME
2 CONTROL PROGRAM
  
```

```

START TIME
1 0 : 25 AM      (HH:MM)
  
```

```

REPEAT : 03 TIMES (CAMERA)
COMMAND :
PAN RIGHT ZOOM OUT
PAN LEFT  PRESET REGI.
TILT UP   PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN   CAMERA STOP
  
```

```

REPEAT : 03 TIMES (VICT)
COMMAND :
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV100  PREV. : *  NEXT : #
  
```

12 Enter "111111" for PHONE NUMBER, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:LV100
SET
PHONE NUMBER:█
PASSWORD:
REDIAL TIME:0
INTERVAL:01:00(MM:SS)
```

13 Press **▼** once, and press ***** once.

14 Select PRESET MOVE using **▼**, **▲**, **▶** and **◀**, and press **ENTER**.

- PRESET REGI.Camera position memory
- PRESET MOVECamera position move

```
REPEAT:03TIMES(CAMERA)
COMMAND:LV100 1111111
PAN RIGHT ZOOM OUT
PAN LEFT PRESET REGI.
TILT UP PRESET MOVE
TILT DOWN BACKLIGHT
ZOOM IN CAMERA STOP
30 NEXT:#
```

15 Set "1" for PRESET NUMBER, and press **ENTER**.

```
REPEAT:03TIMES(CAMERA)
COMMAND:30
PRESET MOVE
NUMBER:█
(FROM 0 TO 9)
```

16 Select OTHER using **▶**, and press **ENTER**.

```
REPEAT:03TIMES(CAMERA)
COMMAND:30
CONTROL SIDE
OTHER HERE
```

17 Press **▼** once, and press **#** twice.

18 Select PAUSE using **▼**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:001 T00H00M05S
PICTURE QUALITY
AUDIO OUTPUT SELECT
STILL/MOTION SELECT
CONTINUOUS STILL IMAGE
PAUSE
```

19 Set 10 seconds for the PAUSE TIME, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:T
PAUSE TIME
00:00:█0 (HH:MM:SS)
```

20 Press **▼** once, and press ***** once.

Timer Program

- 21 Select DISCONNECT using **▼**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:05S T00H00M0AS
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV110 PREV.:* NEXT:#
```

- 22 Select CALL using **▼**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:0H00M0AS LV110
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV100 PREV.:* NEXT:#
```

- 23 Enter "222222" for PHONE NUMBER, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:LV100
SET
PHONE NUMBER:█
PASSWORD:
REDIAL TIME:0
INTERVAL:01:00(MM:SS)
```

- 24 Press **▼** once, and press **#** once.

- 25 Select PAUSE using **▼**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:LV100 222222
PICTURE QUALITY
AUDIO OUTPUT SELECT
STILL/MOTION SELECT
CONTINUOUS STILL IMAGE
PAUSE
```

- 26 Set 10 seconds for the PAUSE TIME, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:T
PAUSE TIME
00:00:10 (HH:MM:SS)
```

- 27 Press **▼** once, and press ***** once.

- 28 Select DISCONNECT using **▼**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:222 T00H00M0AS
CALL
DISCONNECT
VIDEO INPUT SELECT
VIEW SELECT
AUDIO INPUT SELECT
LV110 PREV.:* NEXT:#
```

29 Press **▼** once, and press **#** twice.

30 Select **REPEAT INTERVAL**, and press **ENTER**.

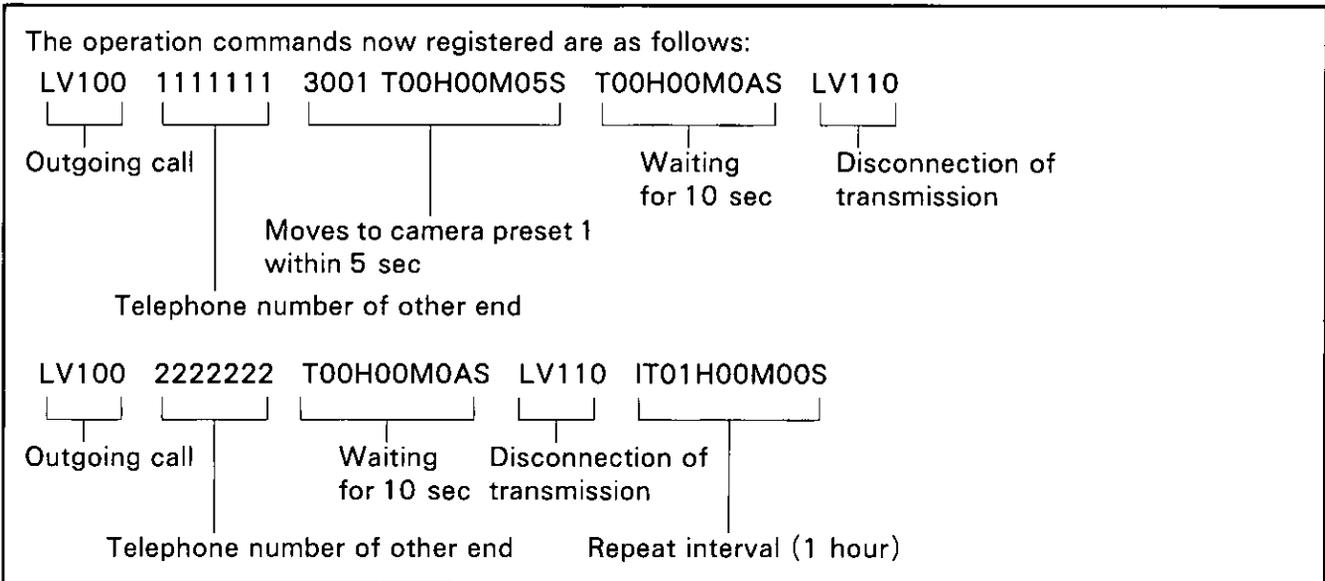
```
REPEAT:03TIMES(VICT)
COMMAND:0H00M0AS LV110
REPEAT INTERVAL
IT          PREV.:*
```

31 Set 1 hour for the **REPEAT INTERVAL**, and press **ENTER**.

```
REPEAT:03TIMES(VICT)
COMMAND:IT
REPEAT INTERVAL
01:00:00 (HH:MM:SS)
```

32 Check the commands, and press **ENTER**.

33 Press **MENU** to exit.



Note:

- If the repeat interval is set to "1 hour", the operation is repeated every hour.
- When the time of the first operation is longer than the preset repeat interval (1 hour), the second operation is canceled and the third operation starts two hours after the first operation began.
- If you do not set a repeat interval, the operations that have been set to be repeated will be executed without any intervals.

Modem Mode

Unit data communications can be controlled with modem control commands from a personal computer. The AT commands listed on the next page can be used as the modem control commands.

Notes:

- This unit supports only some AT commands, and it cannot be guaranteed to operate perfectly as a modem.
- When using the unit for data communications, the error correction, data resending and data compression functions are not supported.
- This mode is only effective for communications between two videophone units. It cannot be used as a modem for personal computers or other devices.

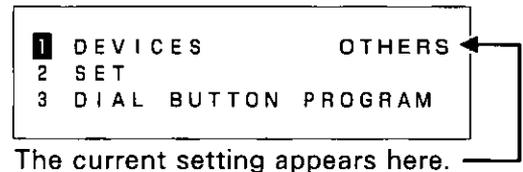
■ Connected Devices / Port Settings

The unit must be set to support the connected device.

1 Press **MENU**.

2 Select **RS-232C** using **▶**.

3 Press **1** (**DEVICES**).

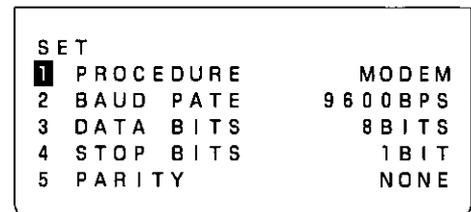


4 Press **2** (**OTHERS**).



5 Press **2** (**SET**).

6 Press the dial button corresponding to the item to be set.



7 Make the detailed settings using the dial buttons.

- Set **2** (**MODEM**) for **PROCEDURE**.

1 PC CONTROL

This setting makes it possible to change the unit's communication control menu settings and exercise various forms of control from the personal computer.

2 MODEM

When the unit has been connected to a personal computer, this setting enables the unit to work as a modem.

The modem control commands are based on the AT commands.

7

3 DATA PASS THROUGH

When the unit has been connected to a personal computer or control device, this setting enables the unit to transfer the data, which has been input to or output from the RS-232C port, straight to the line.

- For other items, select a setting which supports the connected device. (Refer to the instructions accompanying the device that has been connected.)

8

Press **MENU**.

■ Table of the Supported AT Commands

Commands	Action	Result Codes
AT	Use alone to test for OK result code.	OK
ATA	Manual Answer: This command is not used. Because VICTPRO supports auto answer mode only.	On Call: CONNECT xxxx Not Call: NO CARRIER
ATDT xxxx/pppp ATDP xxxx/pppp ATD xxxx/pppp	Dials the specified phone number with password. Includes the following: ATDP: Pulse dial. ATDT: Tone dial. xxxx: Number. pppp: Password check for remote site security. When setting the security ON at remote site VICTPRO.	On Call at remote site: BUSY Not Call: CONNECT xxxx
ATH ATH0 ATH1	Controls ON/OFF hook. ATH and ATH0: ON hook. ATH1: OFF hook.	OK
ATS0? ATS2? ATS3? ATS4? ATS5? ATS7?	Displays contents of S-Register n. S0: Number of rings in Auto Answer mode. S2: ASCII decimal code for the Escape Code character. S3: ASCII decimal code for the Carriage Return character. S4: ASCII decimal code for the Line Feed character. S5: ASCII decimal code for the Backspace character. S7: Number of seconds the modem waits for "No Carrier".	001 043 013 010 008 060
ATO AT00 AT01	Returns to online.	On Call: OK Not Call: ERROR
+++	Escape to command mode.	Not return value.
VPIPL	Escape to PC control mode.	OK

PC Connect Mode

By preparing applications using a personal computer, many of the unit's functions can be controlled from the personal computer.

- The same connections are used with the personal computer as in the optional connections.
(See page 18)
- As with the modem mode, set **1** (PC CONTROL) for PROCEDURE in step 7 for Connected Devices/Port Settings. (See page 80 and 81)

■ Table of the Supported Functions

Functions	Details
Communication	Call, Video Connection, Disconnect, Password Input
Log	Switching the Log ON/OFF
Time and date	Time and Date Show Type (Only date/Time (12H)/Time (24H)/None) Setting Time and Date
Audio	Volume Level (Handset: 3 level, SP-PHONE: 8 level) Audio Input (VICT/Audio1/Audio2) Audio Output (VICT/External/All) Audio Mute (Mic-SP-PHONE)
Video	Video Quality (5 level: Motion ⇄ Clarity) Video Input (Camera/Video1/Video2) Camera Backlight (8 level) Screen Save (ON/OFF, Time)
Auto Answer	Auto Answer function (ON/OFF) Ring Length (1~9 times), Video (Motion/Still/None), Audio (Mute/Standard)
Alarm	Alarm Function (ON/OFF) Video (Motion/Still/None), Audio (Mute/Standard), Message Number, Our Phone Number
Protection	Key Lock (None/Menu/All) Password Function (ON/OFF) Far End Control (ON/OFF)
Port Setting	Device type (Camera/Others) Procedure, Baud Rate, Data Bit, Stop Bit, Parity
Button	Emulate Button Push
Device Control	Camera Control, Send and Receive User Data
Others	Restore Default Displaying Any Message Hook Control Getting VICT Status (Communication condition)

* For details, consult your dealer.

Miscellaneous Information

Before Requesting Help

■ Routine Care

- **For routine maintenance, wipe the unit using a soft cloth.**

To remove stubborn dirt, dip a cloth into some neutral detergent which has been diluted with water, wring it out well, wipe the unit, and then take up any moisture left on the unit using a dry cloth.



NEUTRAL DETERGENT

- **Do NOT use insecticides, benzene, paint thinners or other volatile solvents on or near the unit.**
Discoloration may occur as a result.



INSECTICIDE BENZENE THINNER

Before Requesting Help

■ Troubleshooting

If you think that there is something wrong with your unit, take remedial action provided in the table below.

	Symptom	Cause	Remedial action	Reference page
General	No operation.	Disconnect the AC adaptor and re-connect it.		16
	The metal part of the unit's casing and the handset are warm.	This is not indicative of trouble. (These parts may feel hotter to the touch in summer than in winter.)	If the parts are very hot, disconnect the power plug, and consult your dealer.	16
Telephone	No dialing (dialing tone can be heard).	The main unit's settings do not match the type of telephone line provided by the telephone company whose service you subscribe to.	Set the main unit properly.	16
	No dialing (no dialing tone can be heard).	The telephone cord is disconnected.	Connect it properly.	16
		The handset has been off the hook for a long time.	Put the handset back on the main unit.	16
	The other party's voice cannot be heard.	The transmission of the other party's voice has been temporarily suspended (by setting MUTE to ON).	Ask the other party to press the MUTE button.	21
		The volume at your end is set too low.	Set the volume to the appropriate level.	21
		A speaker has not been connected although an external device has been designated for the sound output.	Connect an external speaker.	15
	The other party cannot hear your voice.	The transmission of the your voice has been temporarily suspended (because you set MUTE to ON).	Press the MUTE button.	21
		The volume at the other party's end is set too low.	Ask the other party to set the volume to the appropriate level.	21
		An external unit has not been connected although an external source has been designated for the sound input.	Install an external unit (such as a video camera or VCR).	15
	Short silences, echoes or speech cuts occur when using speakerphone.	At the beginning of a call, videophone hasn't adapted to its environment yet.	At the beginning of a call, both parties should speak alternately. This enables the unit to adapt to its environment and let both parties speak simultaneously.	—

Before Requesting Help

	Symptom	Cause	Remedial action	Reference page
Telephone	Short silences, echoes or speech cuts occur when using speakerphone.	The change of its environment may cause the readaptation.	Do not move the unit while it is used. Keep your hands away from the unit during calls. Keep files, cups, coffee pots, etc., away from the unit.	—
		The other party may not use full duplex speakerphone.	For best sound quality, the other party should use a handset phone or full duplex speakerphone.	—
Videophone	The videophone fails to connect.	The line is bad or reception is difficult in some areas.	Try calling again. If the videophone fails to connect even after a number of tries, consult your dealer.	23
		The telephone line cord is connected to an external telephone jack.	Reconnect the cord to the telephone line jack.	16
	The other party's picture fails to appear after the call is connected.	The privacy mode has been set at the other end.	Ask the other party to press the VIDEO button.	24
		The self-view mode has been set.	Press the SELF-VIEW button.	24
		Although an external source has been designated for images to be input at the other end, an external unit has not been connected or, alternatively, its power has not been turned on.	Connect an external unit, turn the external unit power on, or switch the video input to the camera.	15-34
	You cannot see your own picture.	Your unit is not set to the self-view mode.	Press the SELF VIEW button.	24
		Although an external source has been designated for the video input, an external unit has not been connected or, alternatively, its power has not been turned on.	Connect an external unit, turn the external unit power on, or switch the video input to the camera.	15-34
	The images do not appear clearly.	The indoor lighting has not been adjusted properly.	Adjust the backlight or the indoor lighting.	39
		The unit's camera is shooting under backlight conditions.	Place the unit where there are no backlight conditions.	—
		The LCD screen's contrast or brightness control has not been set properly.	Adjust the LCD screen controls properly.	19
The picture appears as a still image.	The still image mode has been established.	Release the still image mode.	25-40	

Before Requesting Help

	Symptom	Cause	Remedial action	Reference page
Videophone	The picture vanishes or is subject to disturbances while the videophone is in use.	Check if the unit is connected to a telephone line for which the call waiting service has been contracted.	The video transmission is suspended when a second call is received. For details, consult your dealer.	—
		Check whether a thunderstorm is taking place.	Thunderstorm can cause the videophone transmission to be suspended by the abnormal noise which generates on the telephone line. Video transmission is also suspended when the power experiences an instantaneous failure or when it fluctuates.	—
		If the communication of the videophone is suspended, repeat the procedure for video communication.		23
	The sound crackles while a conversation is being held on the videophone.	The line is bad. In extreme cases, some improvement may occur when the handset is put back on the hook and the number dialed again.		23

Before Requesting Help

■ Error Message on the Display

If one of these messages appears, take the corresponding remedial action in the table below.

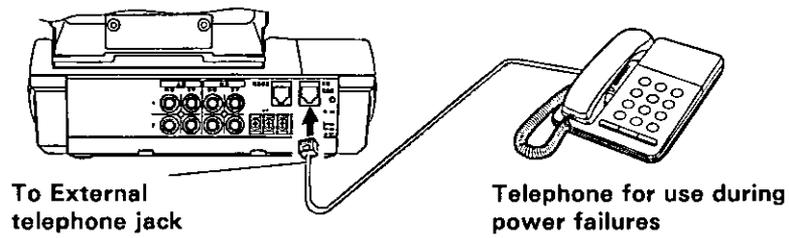
	Message	Cause	Remedial action	Reference page
Screen	PASSWORD ERROR	The wrong password was entered.	Enter the correct password.	44
	NO DIRECTORY	The directory has not been registered.	Register the directory.	28
		A call has been made from the directory when it has not been registered.		
	DIRECTORY IS FULL	An attempt has been made to register more than 100 entries in the directory.	Up to 100 entries can be registered. Delete the entries which are no longer required before adding new ones.	27 ~ 30
	PLEASE INPUT NAME AND NUMBER	A name or telephone number has not been entered at the directory registration stage.	The name and telephone number must be entered for directory registration.	28
	NO LOG LIST	The communication log has not been registered.	Set LOG to ON if a communication log is required.	32
	INCORRECT DATE OR TIME	An incorrect setting has been made for the date or time.	Enter the date and time correctly.	20
TIME SET ERROR	There is an error in the setting for the programmed call start time.	Enter the correct time.	73	
Telephone line	THE LINE IS BUSY	The other party's line is busy.	Check the telephone cord connections. If it is connected properly, hang up, wait a few moments and try again.	16-21
	LOST VIDEO CONNECTION TRANSFERRING TO AUDIO MODE ONLY	Video transmission has been canceled due to line noise or the Call waiting function, and the unit has returned to the telephone mode.	To resume video transmission, press the VIDEO button twice.	23

Before Requesting Help

■ When a Power Failure Occurs

The unit cannot be used when the power has failed. It is recommended that you connect a phone which can be used during power failures to the unit.

- The information registered in the unit is not lost even when the power fails.



Specifications

Item	Specification	
Dimensions (W×D×H)	Approx. 220×230×227 mm (when camera is mounted) (8 11/16" × 9 1/16" × 8 15/16")	
Weight	Approx. 2.3 kg (5.1 lb.)	
Transfer rate	Max. 33.6 kbps	
Telephone line	Ordinary or dedicated telephone line	
Communication method	H.324 (International Standard ITU-T recommendation)	
	Video	H.263 (International Standard ITU-T recommendation)
	Audio	G.723.1 (International Standard ITU-T recommendation)
Resolution	Moving pictures	FCIF mode : 352×288 pixels QCIF mode : 176×144 pixels
	Still pictures	FCIF mode : 352×288 pixels QCIF mode : 176×144 pixels
Camera	Image device	1/4" color CCD
	Number of pixels	250,000 pixels
	Shooting range	Approx. 5 cm to ∞
	Maximum picture angle	48° (horizontal) 35° (vertical)
	Minimum brightness	15 lx
	Focusing	Manual
	Iris	Electronic shutter system
	White balance	Automatic
Display	Liquid crystal	4" TFT LCD
Interfaces	Video outputs	RCAX2
	Audio outputs	RCAX2
	Video inputs	RCAX2
	Audio inputs	RCAX2
	External camera input	RCA
	RS-232C	D-SUB, 9 pins
	Alarm connector	Screw-down terminal, 2 pins
	Telephone line	Modular jack, 6 pins
	External telephone	Modular jack, 6 pins
	Power supply	Accessory AC adaptor (5V, 8V, -18V)
Power consumption	Maximum : Approx. 25W	
Operating conditions	5°C~35°C (41°F~95°F), 30%~80% RH (Relative Humidity)	

Other Information

■ Glossary

The terms used but not defined in the text are explained below.

- G.723.1** Refers to a standard governing audio encoding for multimedia communication (5.3 kbps and 6.3 kbps).
- H.223** Refers to a standard governing the multiplexing protocol for low bit rate multimedia communication.
- H.245** Refers to a standard governing the control protocol for multimedia communication.
- H.263** Refers to a standard governing video encoding for low bit rate communication.
- H.324** Refers to a standard governing multimedia terminals for low bit rate videophone services used with ordinary analog telephone lines (GSTN : General Switch Telephone Networks).
- ITU-T** International Telecommunication Union, Telecommunication Standardization Sector.
- V.34** Refers to a standard governing modems which operate at data signal speeds up to 33600 bps and which are used with ordinary analog telephone lines (GSTN) or 2-wire point-to-point telephone type dedicated lines.
- Analog telephone line** A telephone line which is usually provided for houses.
- Alarm detector unit** A device which receives signals from an infrared sensor, etc. and warns of alarm conditions.
- Backlight** In connection with pictures, this refers to an image which appears blacked out because a light source was behind the subject when it was shot.
- Private branch exchange (PBX)** A telephone switching system which is installed in a building where many telephone lines are connected.
- Still image** An image which does not move.

Other Information

- Dial pulsing line**The type of telephone line which uses a number of pulses (instant voltage changes) to identify each telephone number.
- Digital communication**A means of communication by which the image and voice data are converted into digital signals which are then transmitted and received.
- Videophone**A communication device which enables both sound and pictures to be sent and received simultaneously.
- Moving image**An image which moves.
- Tone signal**A signal which emits a different tone when each dial button is pressed on a touch-tone telephone connected to a touch-tone line.
- Password**A secret code which is agreed upon between the user and the other party. It is used to confirm that the other party is the one who is authorized to monitor the data.
- Modular jack**A type of jack for connecting a telephone to the telephone line. It can be plugged in and unplugged.
- Full duplex speakerphone** ...A speakerphone which enables communication between both parties at the same time.
- Preset**.....A function which allows the camera to be returned to pre-set pan and tilt positions and zoom and backlight compensation setting values by pressing a single button.

Other Information

■ Accessory Ordering Information

For an option accessory order, consult with your dealer.

	Model No.
Panasonic camera (supporting the RS-232C connection)	KXC-PG100

Regarding the RS-232C cable for the Panasonic KXC-PG100 camera, consult your dealer.

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Industrial Park, Carolina, Puerto Rico 00985

Panasonic

Video Teleconferencing System (VTS) Products

Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will repair this product with new or refurbished parts, free of charge, in the USA or Puerto Rico for one (1) year from the date of original purchase in the event of a defect in materials or workmanship.

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Service Directory

Panasonic

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:
1-800-272-7033, Monday-Friday 8:30am-8pm, EST.

Web Site: <http://WWW.Panasonic.com>
You can purchase parts, accessories or locate your nearest servicer by visiting our Web Site.

Product Repairs

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Factory Servicer*

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