

# Panasonic

Integrated Telephone System

Model No. **KX-TS20-W**

**Data Port**

## OPERATING INSTRUCTIONS



La referencia rápida en español  
puede ser encontrada en las páginas 40-43.

**PLEASE READ BEFORE USE AND SAVE.**

# Before Initial Use

Please read **IMPORTANT SAFETY INSTRUCTIONS** on pages 44–45 before use. Read and understand all instructions.

*Thank you for purchasing the Panasonic integrated telephone system.*



**Attach your purchase receipt here.**

## For your future reference

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

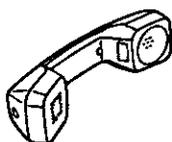
Date of purchase \_\_\_\_\_

(found on the bottom of the unit)

Name and address of dealer \_\_\_\_\_

## Accessories

Handset (p. 7)



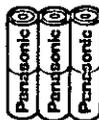
one

Handset cord (p. 7)



one

R6 (AA, UM-3) size batteries (p. 6)



three

4-wired telephone line cord  
(pp. 7, 8, 9)



one

2-wired telephone line cord  
(pp. 8, 9)



one

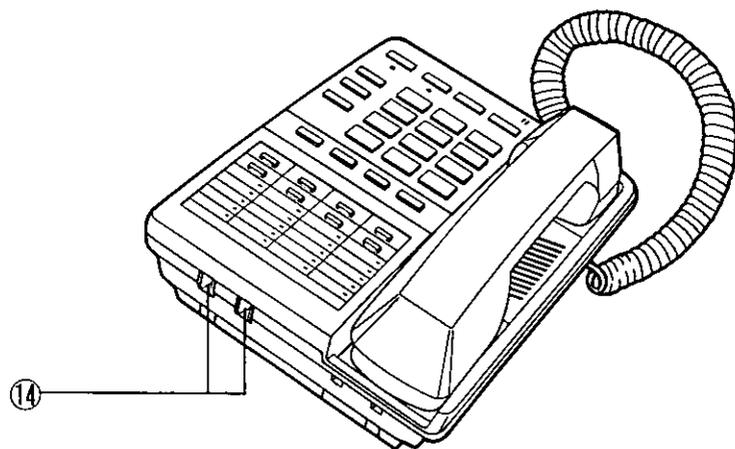
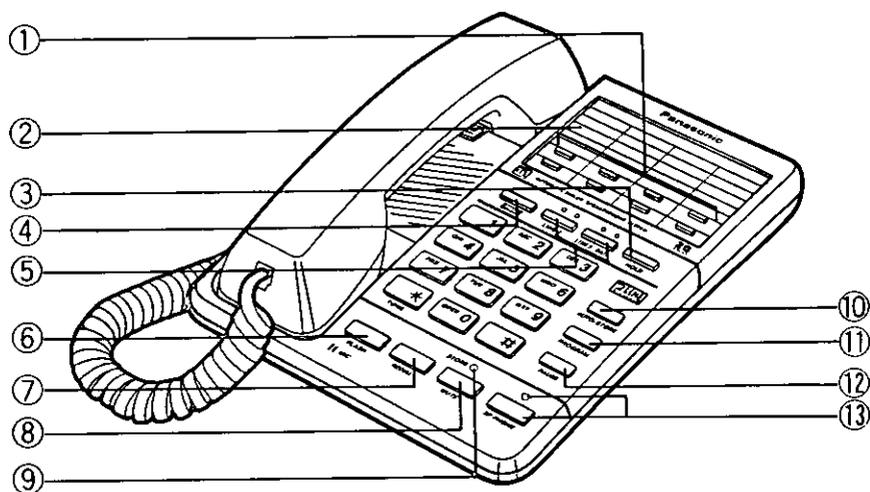
• To order accessories, call 1-800-332-5368.

# Contents

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Location of Controls and Jack .....	4
Battery Installation .....	6
Connection .....	7
Initial Setting .....	10
Manual Dialing and Receiving .....	12
Hands-free .....	17
Hold .....	18
Conference .....	23
Automatic Dialing .....	25
Other Operations .....	33
Mute, Combination dialing, Tone .....	33
Pause .....	34
Special Phone Company Services .....	35
Selection of Line Mode Selectors .....	36
Selection of Central Office Line (C.O.L.) Selector .....	37
Troubleshooting Guide .....	38
Accessory Order Information .....	38
Wall Mounting .....	39
Referencia rápida .....	40
Important Safety Instructions .....	44
FCC and Other Information .....	46

# Location of Controls and Jack

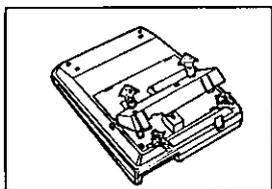


- 
- ①**Direct Call Button** : They are used to store telephone number and to make call by one-touch dialing easily.  
(See page 26.)
  - ②**Memory Card** : The instructions for storing telephone numbers into memory and dialing are printed on this Card. You may also use the reverse for writing telephone numbers.  
(See page 15.)
  - ③**Hold Button** : It is used to put the calling party on hold during a conversation. (See page 18.)
  - ④**Conference Button** : You can develop a 2-party conversation into a 3-party conference. (See page 23.)
  - ⑤**Line Buttons** : You can select the line. (See page 12.)
  - ⑥**Flash Button** : It is used to access some of the features of your host PBX. (See page 35.)
  - ⑦**Redial Button** : It is used to redial the last dialed telephone number.  
(See page 13.)
  - ⑧**Mute Button** : It is used when you do not want your voice to be heard by the other party. The voice of the calling party will still be heard. (See page 33.)
  - ⑨**Store Indicator** : When Mute and Store button are used, it lights.  
(See page 25, 33.)
  - ⑩**Auto/Store Button** : It is used to store and dial telephone number in speed dialing. (See page 25.)
  - ⑪**Program Button** : It is used to program telephone number.  
(See page 25.)
  - ⑫**Pause Button** : It is used to pause the dialing. (See page 34.)
  - ⑬**SP-PHONE Button and Indicator**
  - ⑭**Telephone Line Jack** (See page 7, 8, 9.)

# Battery Installation

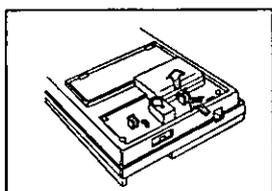
Three R6 (AA, UM-3) size batteries serve as the power source to retain the stored telephone numbers in memory.

1



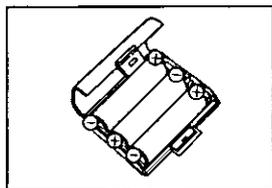
Remove the wall mount adaptor.

2



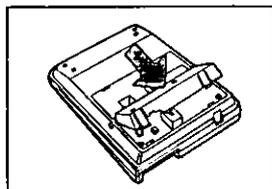
Open the battery compartment cover.

3



Insert the three R6 (AA, UM-3) size batteries observing the correct polarity.

4



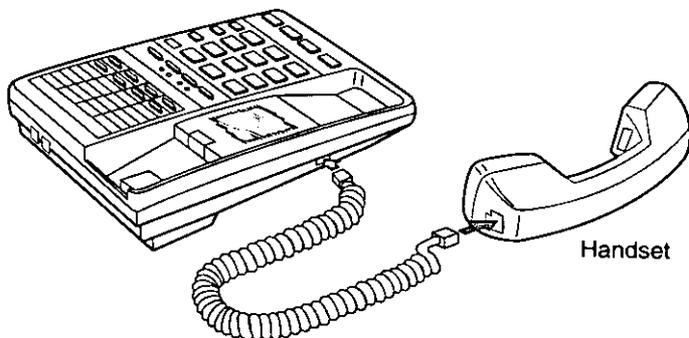
Replace the adaptor.

## NOTE:

- To prevent loss of the stored telephone numbers, replace the batteries within 10 minutes after removing the old ones.
- Disconnect the telephone cord before opening the battery compartment cover.
- Replace all the batteries every eight months, or misoperation may occur
- Do not use Nickel-Cadmium batteries.

# Connection

## Connecting the handset

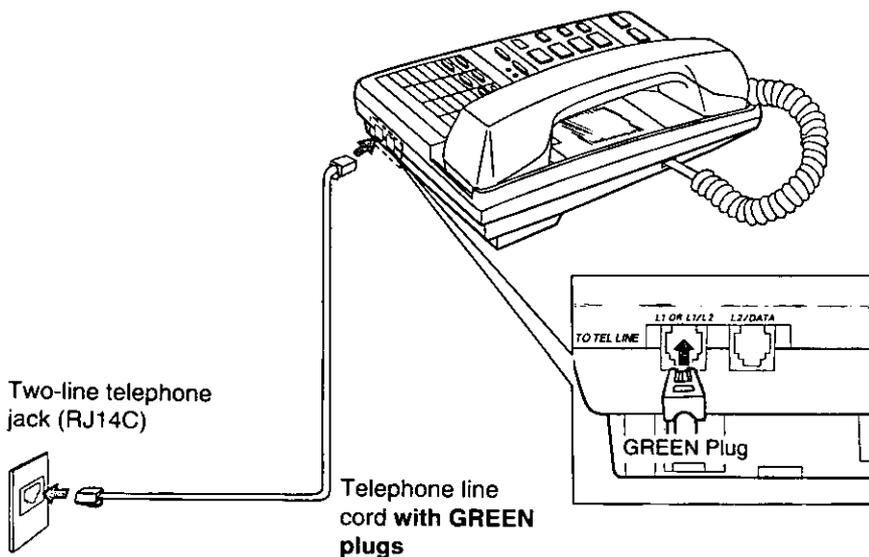


■ Use only Panasonic Handset for the KX-TS20-W.

## Connecting the telephone line cord

Connect the telephone line cord(s) to the unit as follows.

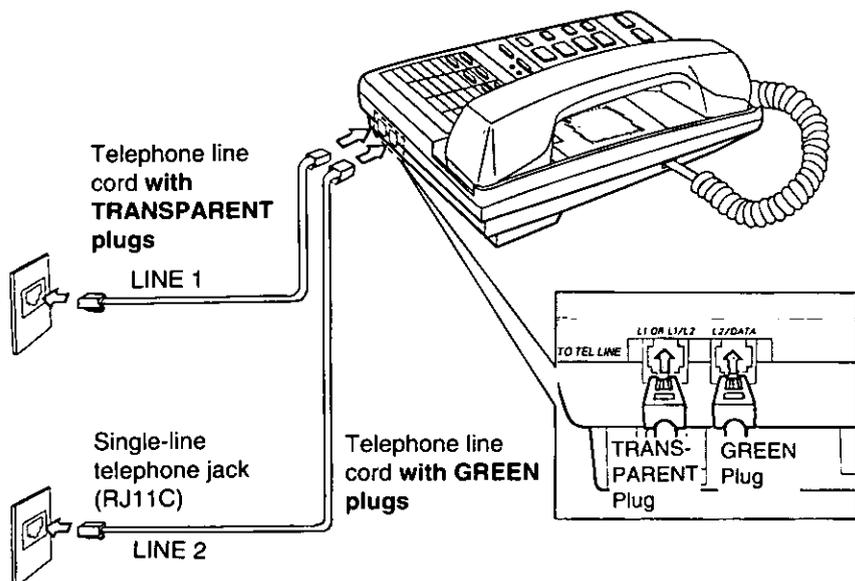
### To connect to a two-line telephone jack



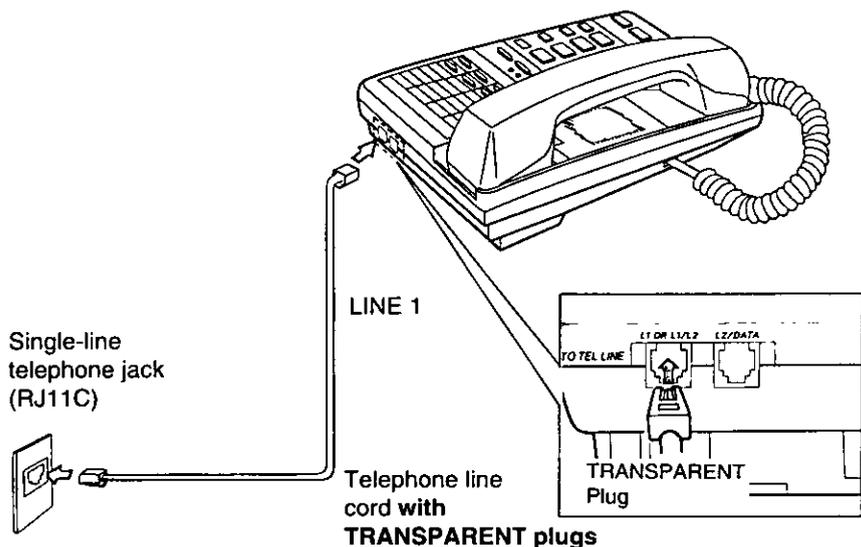
(Continued)

# Connection (cont.)

## To connect to two-line telephone jacks



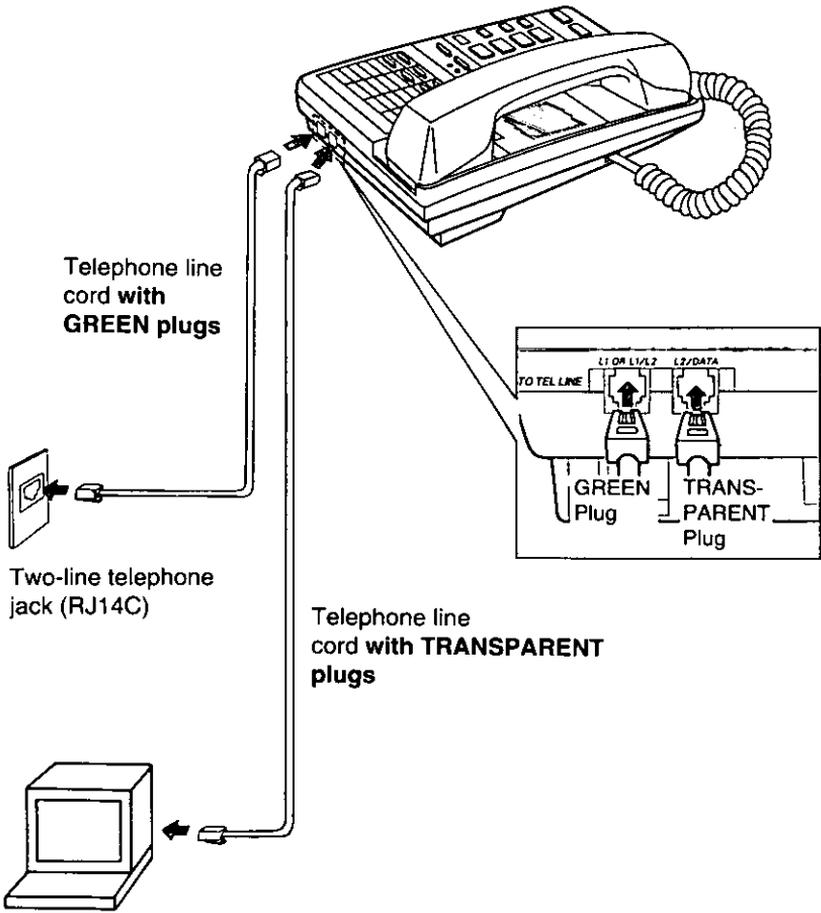
## If you use the unit as only a single-line telephone



- When using this connection, you can only use LINE 1. 2-line telephone features are not available.

# To connect a computer modem, fax or answering machine

When you connect to a two-line telephone jack, you can connect a computer modem, fax or answering machine to the L2/DATA jack.

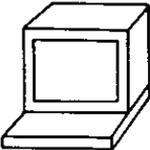


Telephone line cord with GREEN plugs



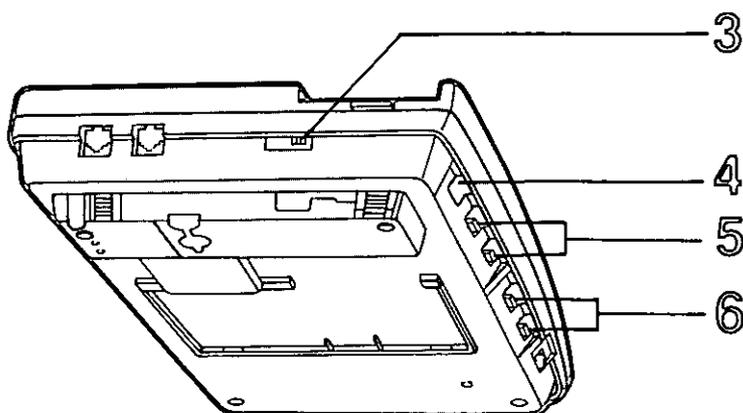
Two-line telephone jack (RJ14C)

Telephone line cord with TRANSPARENT plugs

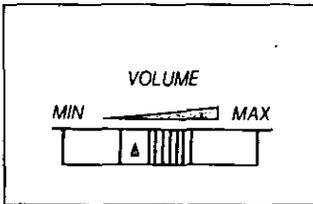


- Computer modem
- Fax
- Answering Machine

# Initial Settings

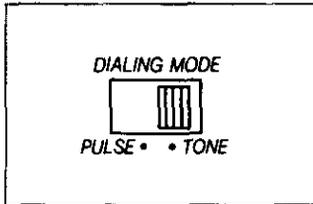


1

**VOLUME Selector:**

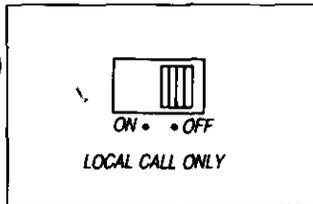
Used to adjust the sound level from the built-in speaker.

2

**Dialing Mode Selector;  
Set to "TONE".**

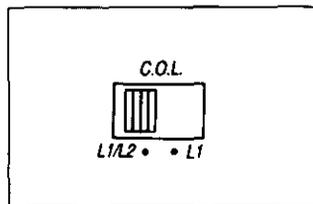
If dialing cannot be done, set to "PULSE". For Tone service, connect this phone to your Local phone company to see if it is available in your area.

3

**Local Call Only Switch**

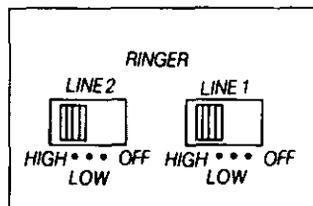
**OFF:** Normal dialing can be operated.  
**ON:** The manual or automatic dialing operation of a number with more than 7 digits is not possible.

4

**C.O.L. Selector;  
Set to "L1/L2".**

For further details, see page 37.

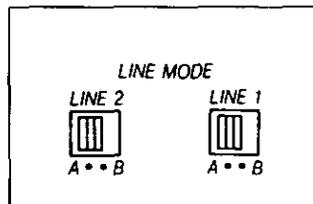
5

**Select the Ring Volume.  
Set to "HIGH".**

**HIGH:** The ringing sound will be high.  
**LOW:** The ringing sound will be low.  
**OFF:** The telephone will not ring.

Select a setting for each line.

6

**Line Mode Selectors;  
Set to "A".**

Select a setting for each line.

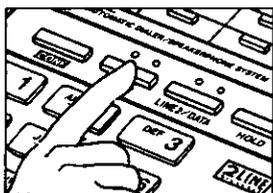
For further details, see page 36.

# Manual Dialing and Receiving

Make sure the Conference button is released.

## Dialing

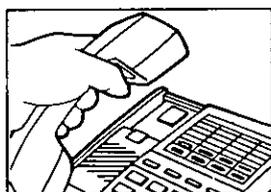
1



**Select the line button.**

Press LINE 1 (or LINE 2/DATA).

2



**Lift the handset.**

The Line indicator lights red.

3



**Dial the telephone number.**

4

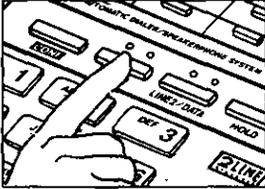


**Hang up when you are finished.**

☒ If you can not dial in the tone mode, switch the Dialing Mode Selector to "PULSE".

## Receiving

1

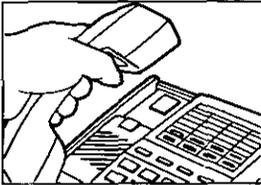


**Select the line button.**

(The red indicator light blinks quickly.)

Press LINE 1 (or LINE 2/DATA).

2



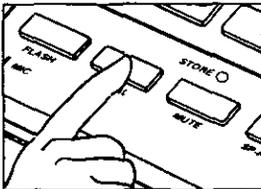
**Lift the handset.**

3



**Start speaking.**

## Redialing



**If busy, press the REDIAL button.**

Pressing the Redial button enables you to redial once.

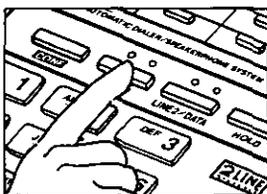
# Manual Dialing and Receiving (cont.)

## Hands-free

For hands-free operation, use the SP-PHONE button instead of the handset.

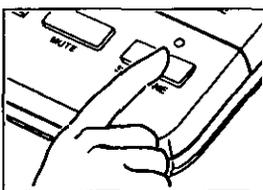
Example:

1



Press the LINE 1 button.

2



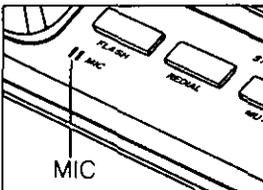
Press the SP-PHONE button.

3



Dial the telephone number.

4



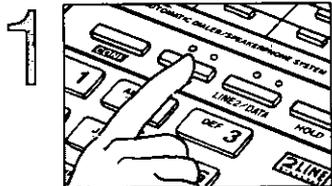
Speak to the other party.

5



Press the SP-PHONE button when you are finished.

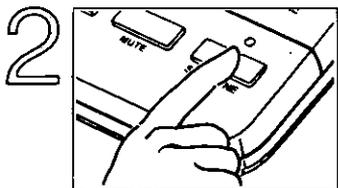
## Receiving



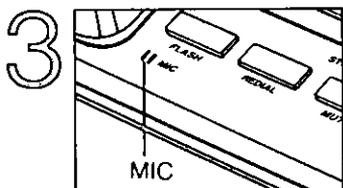
**Select the line button.**

(The red indicator light blinks quickly.)

Press LINE 1 (or LINE 2/DATA).



**Press the SP-PHONE button.**

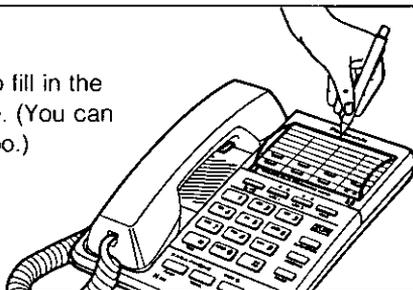


**Start speaking.**

### Memory Card

Use a pencil or a ball-point pen to fill in the station directory with station name. (You can use the reverse side for writing, too.)

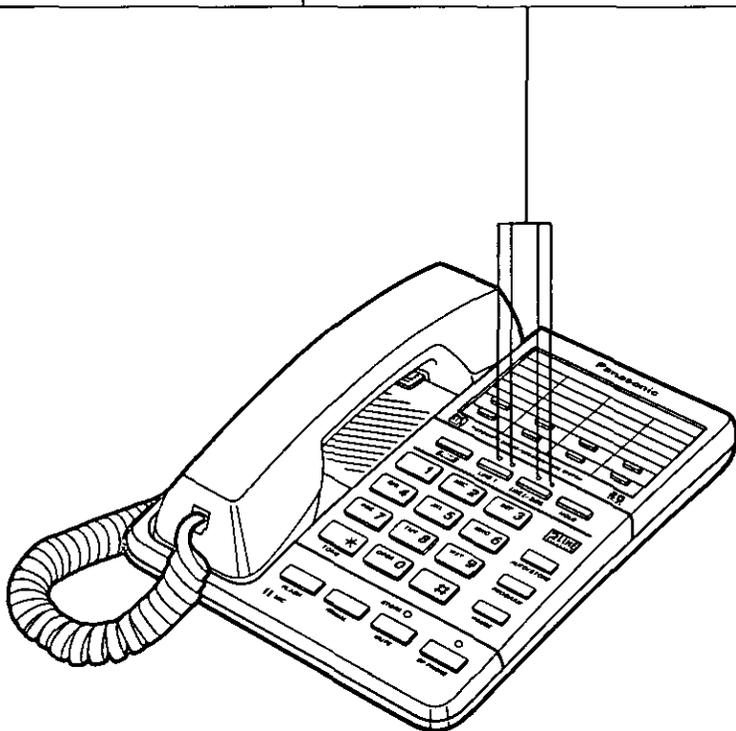
- Remove the cover using an instrument with a pointed end, like a pen.



# Manual Dialing and Receiving (cont.)

If the batteries are not installed, hand-free operation cannot be done.

Line indicators	
Off	Line is free
Flashing red	Incoming call arriving
Red on	Line in use
Green on	Call is on hold

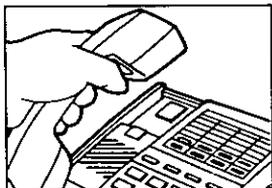


# Hands-free

## Switching to Hands-free or Handset during Conversation

You may choose to use the handset or hands-free.

### ☐ Hands-free → Handset

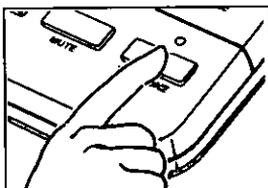


**Lift the handset.**

The SP-PHONE indicator goes out.

### ☑ Handset → Hands-free

1



**Press the SP-PHONE button.**

The SP-PHONE indicator lights.

2



**Hang up the handset.**

If you hang up the handset before pushing the SP-PHONE button, the conversation will be shut off.

## Helpful Hints for Hands-free

- **When the other party finds it difficult to hear your voice:**  
Lower the sound level using the Speaker Volume Control or speak louder.
- **Absorbing echoes:**  
Use in a room which has curtains or carpeting.
- **Note:**  
If you and the caller speak at the same time, parts of your conversation will be lost. To avoid this, speak alternately.

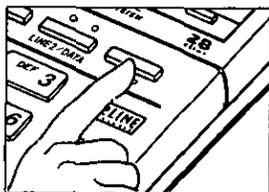
# Hold

## To Place a Call on Hold

### Example:

Call in progress ..... Line 1

Line 2 is free.



### Press the HOLD button.

The Line 1 indicator lights green.

Line 1 is now on hold.

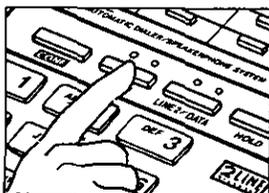
You may hang up the handset.

## To Release a Hold

### Example:

Call is on hold ..... Line 1

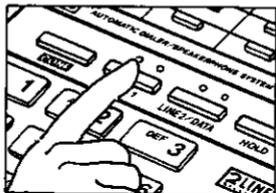
When the handset is lifted



### Press the LINE 1 button.

When the handset is on the cradle

1



Press the LINE 1 button.

---

2

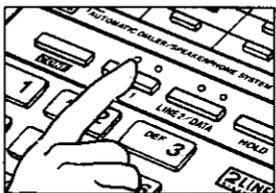


Lift the handset.

---

In the hands-free mode;

1



Press the LINE 1 button.

---

2



Press the SP-PHONE button.

---



Speak to the other party.

# Hold (cont.)

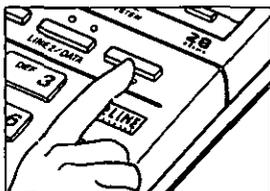
## To Place a Call on Hold, and Make or Receive Another Call

### Example:

Call in progress ..... Line 1

New call ..... Line 2

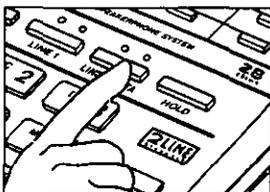
1



Press the **HOLD** button.

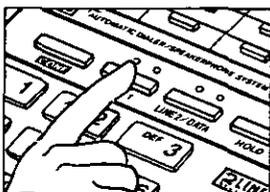
Line 1 is now on hold.

2



Press the **LINE 2/DATA** button,  
and make or receive a new call.

3



When the call is finished on Line 2,  
Press the **LINE 1** button.

The new call is terminated and the call on hold  
is returned to conversation.

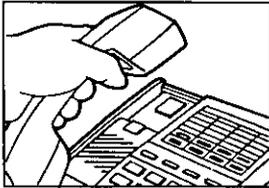
4



To terminate the call, hang up.

## Connecting Another Telephone in Parallel

To release hold using another telephone connected on the same line:



Lift the handset of the other telephone.

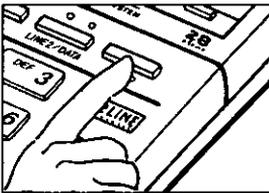
## To Place Present Call on Hold and Talk to Second Caller

Example:

Call is on hold ..... Line 1

New call is in progress ..... Line 2

**1**

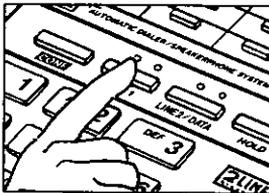


Press the HOLD button.

Line 2 is now on hold.

Line 1 is still on hold.

**2**



Press the LINE 1 button.

Line 1 is returned to the conversation.

Line 2 is still on hold.

# Hold (cont.)

---

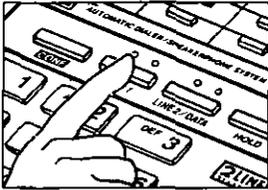
## To Terminate the New Call and Return to the Call on Hold

Example:

Call is on hold ..... Line 1

New call is in progress ..... Line 2

1



Press the Line 1 button.

2



Start speaking

# Conference

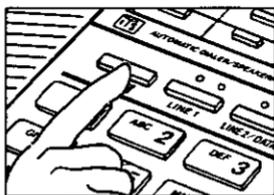
You may develop a 2-party conversation into a 3-party conference.

## To Establish Conference Calls

### Example:

Call is on hold ..... Line 1

New call is in progress ..... Line 2

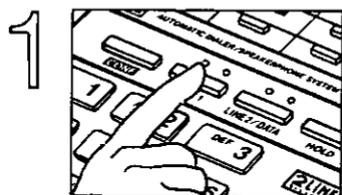


Press the CONFERENCE button.

- To terminate both calls, hang up and press the CONFERENCE button to release the conference mode.
- To avoid improper operation during a 3-party conference, never press the HOLD button.
- When you place both calls on hold, you cannot develop into a 3-party conference by pressing the CONFERENCE button. You must retrieve one call on hold and then press the CONFERENCE button.

# Conference (cont.)

## To Terminate One Caller and Talk To The Desired Caller



Press the LINE 1 button (or the LINE 2/DATA button) to talk to the party you wish to.



Press the CONFERENCE button to release the conference mode.

- Talk to the desired party line.
- The caller on the other line is terminated.

# Automatic Dialing

Be sure the handset is on the cradle, SP-PHONE button is off and batteries are installed.

## Storing Phone Numbers

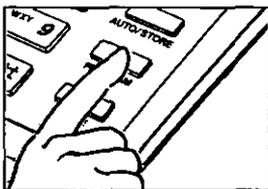
### CAUTION:

Please do not press any buttons of "automatic dialer" before programming. This is to prevent misoperation of auto dialer function.

### Speed Dialing

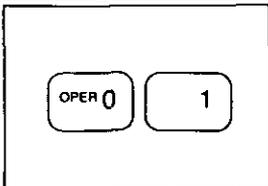
There are 20 memory stations (for Speed Dialing), each station is capable of storing 16 digits. Each memory station can be accessed by dialing two digits on the dial pad.

1



Press PROGRAM button until the STORE Indicator lights.

2



Press the station number.

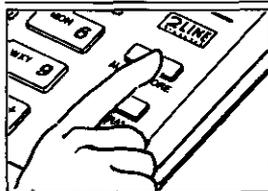
- Phone numbers can be stored into memory stations 01 to 20 following the same procedure.

3



Dial the telephone number.

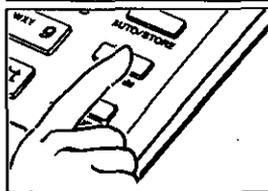
4



Press the AUTO/STORE button.

- To store phone numbers in succession, repeat step from 2 to 4.

5

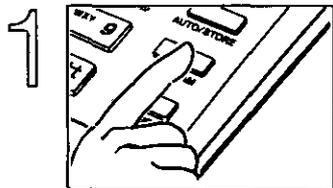


After storing all the numbers,  
Press the PROGRAM button.  
The STORE indicator goes out.

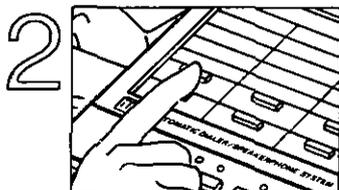
# Automatic Dialing (cont.)

## One-Touch Dialing

There are 8 Direct Call buttons (for One-Touch Dialing), each location is capable of storing 16 digits.



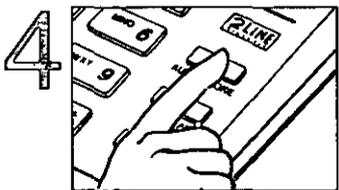
Press **PROGRAM** button until the **STORE** indicator lights.



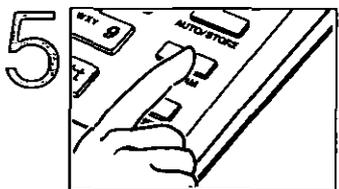
Press **Direct Call** button.



Dial the telephone number.



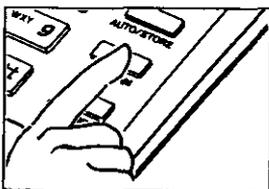
Press the **AUTO/STORE** button.  
○ To store phone numbers in succession,  
repeat step from 2 to 4.



After storing all the numbers,  
Press the **PROGRAM** button.  
The **STORE** indicator goes out.

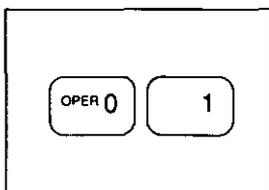
- If your extension is placed behind PBX system, enter the Line Access No. to gain access to an outside line.

1



Press PROGRAM button until the STORE indicator lights.

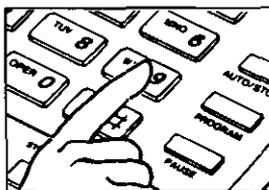
2



Press the station number.

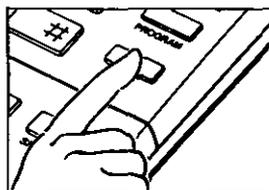
- You may use the Direct call button instead of pressing the station number.

3



Press Line Access number 9.

4



Press the PAUSE button.

5



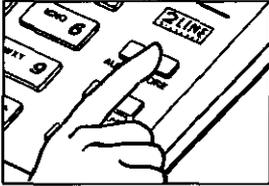
Dial the telephone number.

(Continued)

# Automatic Dialing (cont.)

---

6

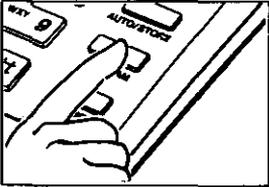


**Press the AUTO/STORE button.**

To store phone numbers in succession repeat step from 2 to 6.

---

7



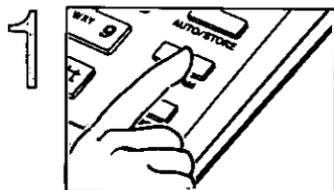
After storing all the numbers,

**Press the PROGRAM button.**

The STORE indicator goes out.

## Correcting an Error while Storing

If you notice an error before pressing the AUTO/STORE button.



Press the PROGRAM button.

2 Repeat all the steps of "Storing Phone Numbers" to reprogram.

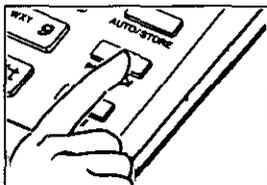
# Automatic Dialing (cont.)

## Erasing a Stored Number

To erase the number in memory station.

Be sure the handset is on the cradle and the SP-PHONE button is off.

1



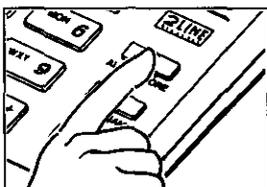
Press the PROGRAM button until the STORE indicator lights.

2



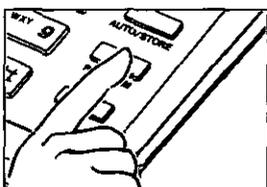
Press the station number.  
Or the direct call button where the telephone number that you want to erase is stored.

3



Press the AUTO/STORE button.

4



Press the PROGRAM button.

## Confirming a Stored Number

**1** Repeat storing procedure the same number into the same station.

**2** When AUTO/STORE button is pressed;

### Store Indicator

○blinks once;

The entry is the same as what was previously stored.

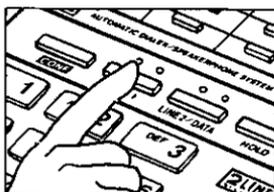
○Lights

The entry is different from the one that was previously stored.

Repeat the procedure of storing.

## Dialing

**1**



Select the line button.

Press LINE 1 (or LINE 2/DATA).

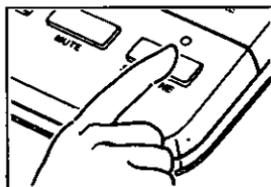
**2**



Lift the handset.

or

In hands-free mode;

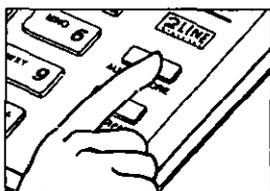


Press the SP-PHONE button.

# Automatic Dialing (cont.)

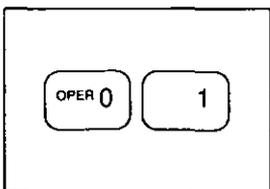
## Dialing Speed Dialing

3



Press AUTO/STORE button.

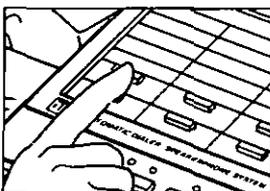
4



Press the station number.

## One-Touch Dialing

3



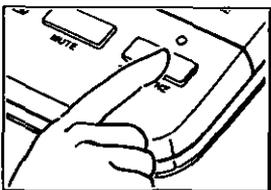
Press Direct Call button.



Hang up when you are finished.

or

In hands-free mode:



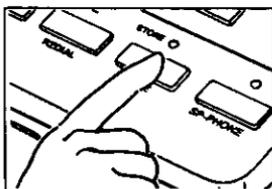
Press SP-PHONE button.

# Other Operations

## Mute Operation

Press the Mute button when you do not want your voice or conversation to be heard by the other party.

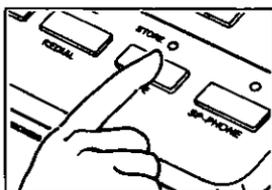
1



**Press the Mute button.**

The STORE indicator lights.

2



**To resume the conversation, press the Mute button again.**

## Combination Dialing

A combination of dialing methods can be accomplished.

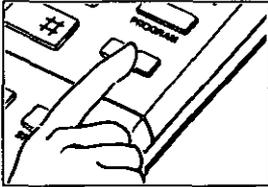
- Automatic and Manual Dialing
- Pulse and Tone Dialing
- Plural Memory Stations

## Tone Button Usage

If you want to change from pulse mode into tone mode during dialing, the Tone button can be used instead of changing the Dialing Mode selector.

# Other Operations (cont.)

## PAUSE button



The PAUSE button function is needed behind the PBX for outside line access or a computer accessed dial tone.

The PAUSE button is used in a dialing sequence to access an outside line.

### Using the PAUSE button

When the unit is connected to your PBX's extension, enter the line access number and a pause to access an outside line.

Also when redialing, a pause may be required by your host PBX.

Example: Line access number 9

9 — PAUSE — Phone Number

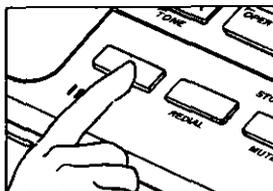
# Special Phone Company Services

The Flash button can be used for CALL WAITING. For details about obtaining "CALL WAITING" service, contact your telephone company.

## Call Waiting

1 While having a conversation, another party calls and a tone is heard.

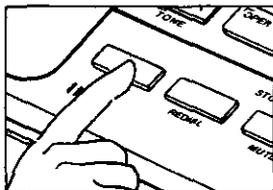
2



Press the FLASH button lightly.

- The first conversation is placed on hold and the second call can be answered.

3



Press the FLASH button lightly again.

- You will be able to speak to the first caller again and the second call is placed on hold.
- If the calling party on hold hangs up, the line is terminated.

■ You may access some features of your PBX using the Flash button instead of the hookswitch.

Press the Flash button lightly in a dial operation. "Flash" can be stored into memory in the same way as "Storing Phone Numbers". Memory station can automatically access to features of your host PBX.

Press the Flash button lightly at the position where hookswitch operation is required in a dial operation when programming into memory station.

# Selection of Line Mode Selectors

---

- ☒ Usually - "A" position  
"B" position is for PBX systems. (Low Volt)
  
- ☒ If the line indicator remains on when you connect the unit to the telephone line and place the handset in the cradle (on-hook position), switch the selector to "B" from "A".
  
- ☒ If the line indicator does not light when lifting the handset of another telephone connected on the same line, confirm whether the selector is set to "A" or not. If it is set to "B", switch to "A".
  
- ☒ Select the proper position on each line.
  
- ☒ When using two telephone lines, avoid combining a normal telephone line and a low voltage line such as a PBX system.  
**Example;**
  - Connection to two normal telephone lines is O.K.
  - Connection to two low voltage lines such as a PBX system is O.K.
  - Connecting one line to a normal telephone line and the other line to a low voltage line such as a PBX system should be avoided.

# Selection of Central Office Line (C.O.L.) Selector

## ■ If you use as a 2-Line telephone;

- If you use 2 lines, connect the 4 wired-telephone line cord to the Jack marked "L1 OR L1/L2".  
(RJ14C)

- If you use two single lines, connect the 2-wired telephone line cord to "L1 OR L1/L2" and the 4 wired-telephone line cord to "L2/DATA".

And set the C.O.L. Selector to "L1/L2". Otherwise the Line indicator on Line 2 will not light.

## ■ If you use as a single line telephone;

Connect the telephone line cord to "L1 OR L1/L2" and set the C.O.L. Selector to "L1".

Otherwise the Line indicator on Line 2 will stay lit continuously and consume battery power.

# Troubleshooting Guide

Problem	Cause & Remedy
The unit does not ring.	Ringer Volumes Selectors are set to "OFF". Set to "HIGH" or "LOW"
The Line indicator does not light.	<ul style="list-style-type: none"> <li>○ Batteries have become weak. Replace all the batteries.</li> <li>○ Selection of C.O.L. Selector or Line Mode Selectors is wrong. See "Selection of C.O.L. Selector" or "Selection of Line Mode Selectors"</li> </ul>
<ul style="list-style-type: none"> <li>○ When connecting to a telephone line, the line indicator remains on in spite of placing the handset on the cradle.</li> <li>○ When connecting to a telephone line, the line indicator does not light in spite of lifting the handset of another telephone connected on the same line.</li> </ul>	Selection of C.O.L. Selector or Line Mode Selectors is wrong. See "Selection of C.O.L. Selector" or "Selection of Line Mode Selectors".
I want to use as a single-line phone.	See "Selection of C.O.L. Selector" and "Selection of Line Mode Selector".
<ul style="list-style-type: none"> <li>○ Redialing or Programming Operation does not function.</li> <li>○ Hands-free operation does not function.</li> </ul>	Batteries have become weak. Replace all the batteries.

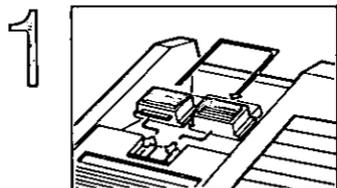
## Accessory Order Information

- Replacement parts and accessories are available through your local authorized parts distributor.
- For accessory order, call toll free 1-800-332-5368.

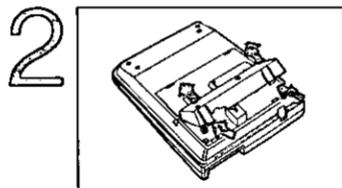
Part No.	Picture	Description	Comment
KX-J10WT KX-J15WT KX-J25WT		Handset cord	10 feet 15 feet 25 feet

# Wall Mounting

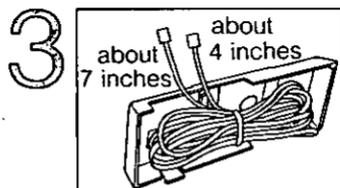
This unit can be mounted on a wall phone plate. If you do not have a modular wall plate installed, we recommend that you consult your telephone company or an installer to have one installed.



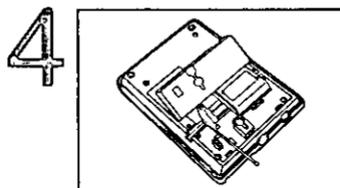
Turn around the handset hook.



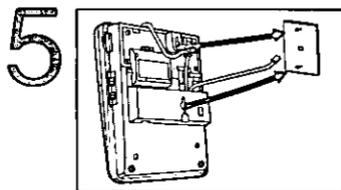
Remove the attaching stand.



Insert the cord as shown.



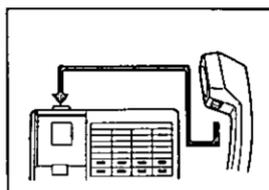
Replace the stand.



Mount the unit on the wall phone plate.



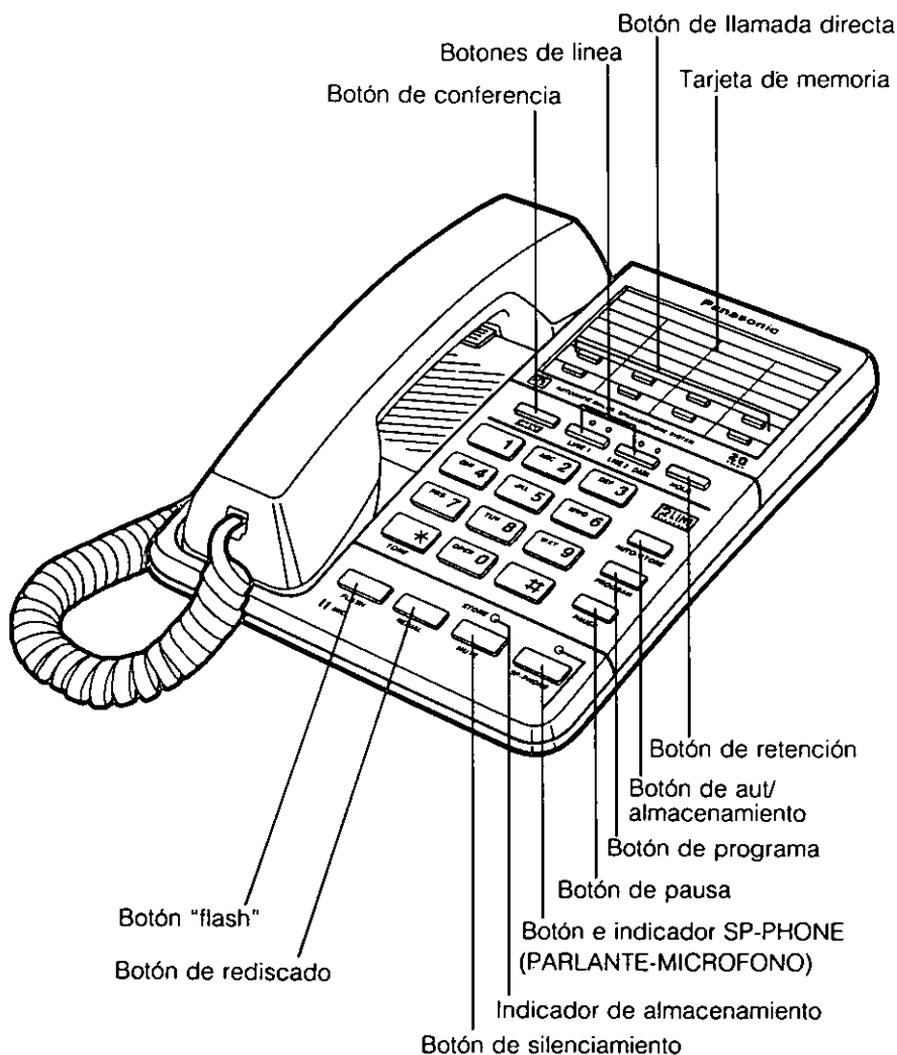
Place the handset.



To temporarily place the handset down during a conversation, hook as shown.

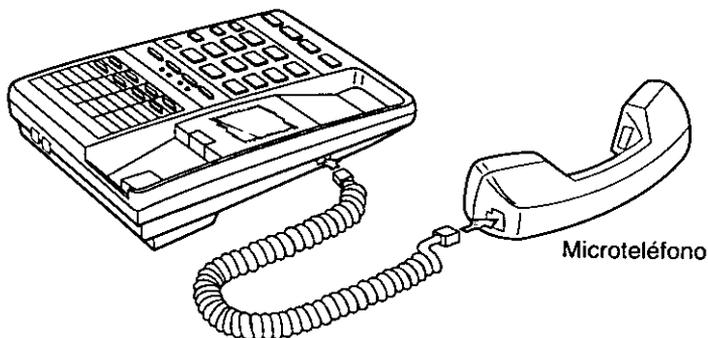
# Referencia rápida

## Localización de los controles



## Conexión

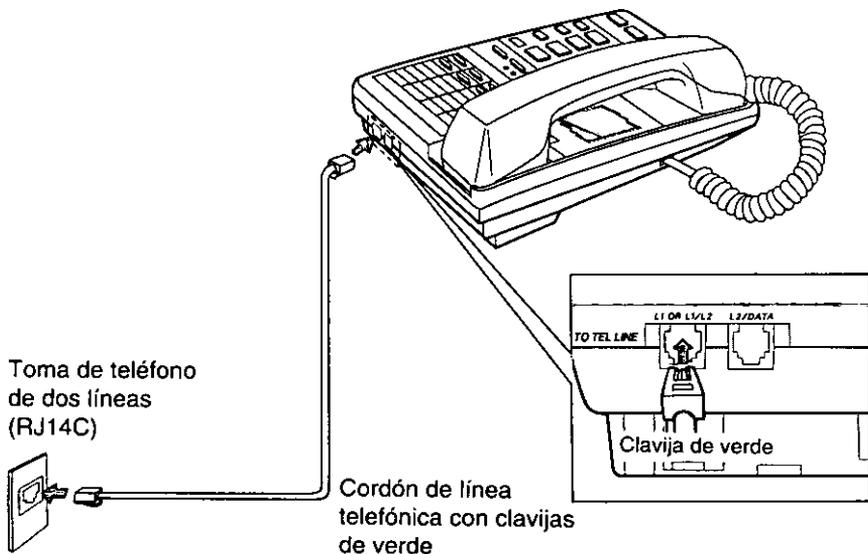
### Conectando el microteléfono



### Conexión del cable de la línea telefónica

Conecta el cable(s) de la línea telefónica al aparato como sigue.

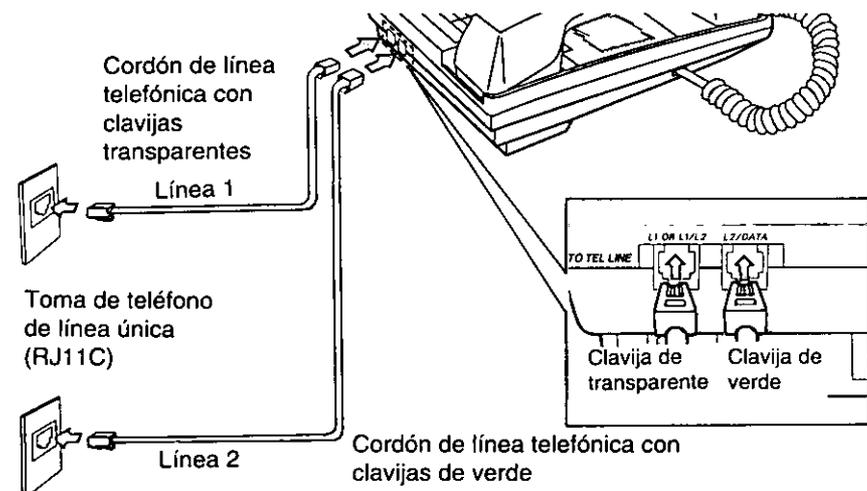
#### Para conectar a toma de teléfono de dos líneas



(Continua)

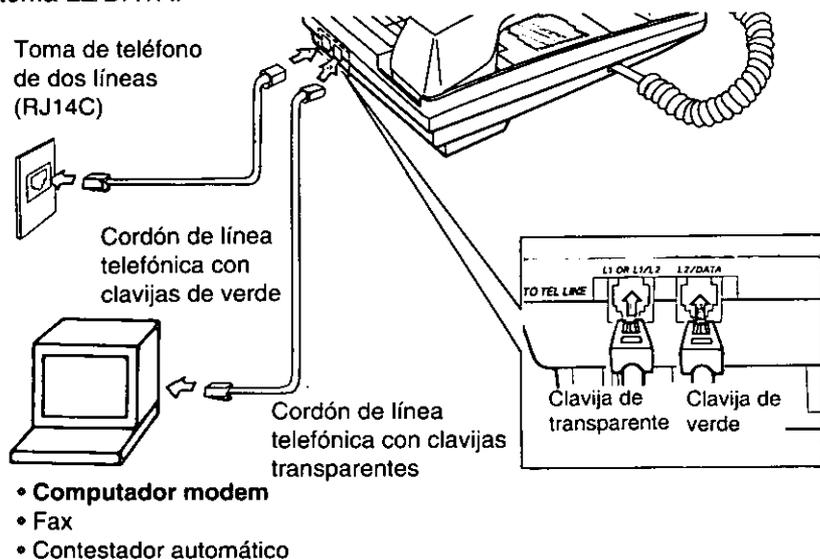
# Referencia rápida (cont.)

## Para conectar a dos tomas de teléfono de línea única



## Para conectar una computadora modem, un fax o un contestador automático

Cuando conecte a una toma de teléfono de dos líneas, usted podrá conectar una computadora modem, un fax o un contestador automático a la toma L2/DATA.



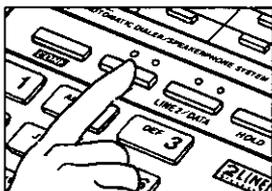
□ Si utiliza la unidad como un teléfono de una línea solamente, consulte la página 8.

## Discado manual

Asegúrese de que el botón de conferencia está soltado.

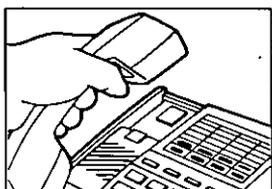
### Discado

1



Seleccione la línea.  
Presione LINE 1 (o LINE 2/DATA).

2



Levante el microteléfono.  
● El indicador de línea se ilumina rojo.

3



Disque el número de teléfono.

4



Cuelgue cuando Vd. termine.

- Si Vd. no puede discar en el modo de tono, cambie el selector de modo de discado a "PULSE" (pulso).

# 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 wall 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 bath tub, wash bowl, 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. Do not place objects on the power cord. Install the unit where no one can step or trip on the cord.
8. Do not overload wall outlets and extension cords. This can result in the risk of fire or electric shock.
9. Never push any objects through slots in this unit. This may result in the risk of fire or electric shock. Never spill any liquid on the unit.
10. To reduce the risk of electric shock, do not disassemble this unit. Take the unit to an authorized servicenter 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.
11. Unplug this unit from the wall outlet and refer servicing to an authorized servicenter 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 servicenter.
  - E. If the unit has been dropped or physically damaged.
  - F. If the unit exhibits a distinct change in performance.
12. During thunderstorms, avoid using telephones except cordless types. There may be a remote risk of an electric shock from lightning.
13. Do not use this unit to report a gas leak, when in the vicinity of the leak.

**SAVE THESE INSTRUCTIONS**

## **CAUTION:**

To reduce the risk of fire or injury to persons, read and follow these instructions.

1. Use only the battery(ies) specified.
2. Do not dispose of the battery(ies) in a fire. They may explode. Check with local waste management codes for special disposal instructions.
3. Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause burns or injury to the eyes or skin. The electrolyte may be toxic if swallowed.
4. Exercise care in handling batteries in order not to short the battery to conductive materials such as rings, bracelets, and keys. The battery and/or conductor may overheat and cause burns.
5. Do not recharge the battery(ies) provided with or identified for use with this product. The batteries may leak corrosive electrolyte or explode.
6. Do not attempt to rejuvenate the battery(ies) provided with or identified for use with this product by heating. Sudden release of battery electrolyte may occur causing burns or irritation to eyes or skin.
7. Replace all batteries at the same time. Mixing fresh and discharged batteries could increase internal cell pressure and rupture the discharged battery(ies). (Applies to products employing more than one separately replaceable primary battery.)
8. When installing batteries observe the proper polarity or direction. Incorrect installation can cause charging, and may result in leakage or explosion. (Applies to products employing more than one separately replaceable primary battery.)
9. Remove the batteries from this product if the product will not be used for a long period of time (several months or more). During this time the battery could leak in the product.
10. Discard "dead" batteries as soon as possible. "Dead" batteries may leak in the product.
11. Do not store this product, or the batteries provided with or identified for use with this product, in high temperature areas. Batteries that are stored in a freezer or refrigerator for the purpose of extending shelf life should be protected from condensation during storage and defrosting. Batteries should be stabilized at room temperature prior to use after cold storage.

# FCC and Other Information

This unit must not be connected to a coin operated line.

If you are on a party line, check with your local telephone company.

- **Environment** — do not place the unit in room where the temperature is less than 5°C (41°F) or greater than 40°C (104°F). Allow 10 cm (4") clearance around the unit for proper ventilation. Avoid excessive smoke, dust, mechanical vibration, shock, or direct sunlight.
- **Routine care** — wipe the unit with a soft cloth. Do not use benzene, thinner, or any abrasive powder. When you left the unit unused for long time, unplug the AC adaptor from the outlet.
- **If there is any trouble** — disconnect the unit from the telephone line and connect a known working phone. If the known working phone operates properly, have your unit repaired by one of the authorized Panasonic Factory Service Centers. If the known working phone does not operate properly, consult with your telephone company.

Ringer Equivalence No. (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.

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.

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

## **WARNING:**

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

If requested by the telephone company, inform them as follows:

- FCC Registration No.  
..... (found on the bottom of the unit)
- Ringer Equivalence ..... 1.0B
- The particular telephone lines to which the equipment is connected.

In the event 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 Rules 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 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.

### **This telephone provides magnetic coupling to hearing aids.**

#### **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.

## For product service

- Panasonic Servicenters are listed in the servicenter directory.
- Call 1-800-545-2672 for the location of an authorized servicenter.

## When you ship the product

- Carefully pack your unit, preferably in the original carton.
- Attach a letter, detailing the symptom, to the outside of the carton.

Symptom

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- Send the unit to an authorized servicenter, prepaid and adequately insured.
- Do not send your unit to the Matsushita Consumer Electronics Company listed below or to executive or regional sales offices. These locations do not repair consumer products.

**Matsushita Consumer Electronics Company,  
Division of Matsushita Electric Corporation of America**  
One Panasonic Way, Secaucus, New Jersey 07094

**Panasonic Sales Company ("PSC"),  
Division of Matsushita Electric of Puerto Rico, Inc.**  
Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park  
Carolina, Puerto Rico 00985