Panasonic

Integrated Telephone System

Model No. **KX-TSC50-B**

Pulse-or-tone dialing capability

Operating Instructions

Jog Dial

Data Port

Caller ID Compatible

PLEASE READ BEFORE USE AND SAVE.

Before Initial Use

Please read IMPORTANT SAFETY INSTRUCTIONS on pages 57–58 before use. Read and understand all instructions.

Thank you for purchasing your new Panasonic integrated telephone.

Caller ID and Visual Call Waiting (Call Waiting ID), where available, are telephone company services. After subscribing to Caller ID, this phone will display the caller's name and phone number. An added service, Visual Call Waiting, will display the second caller's name and phone number during call waiting.

┌───┐
│ **Attach your purchase receipt here.**   │
└───┘

For your future reference

Serial No. _____   Date of purchase _____

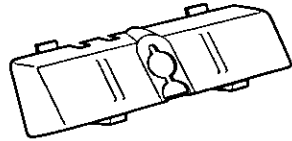(found on the bottom of the unit)

Name and address of dealer _____

Accessories (Included) To order, call 1-800-332-5368.

□ AC Adaptor ....one
(p. 10)
Order No. KX-A11-6
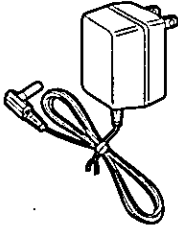
□ Wall Mounting Adaptor ....one
(p. 13)
Order No. PQKL28Z0
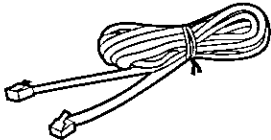
□ Handset ....one
(p. 10)
Order No. PQJX2PML01Z
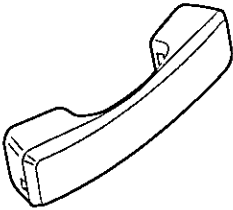
□ Handset Cord ....one
(p. 10)
Order No. PQJA212V
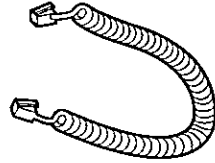
□ Telephone Line Cord..........one
(p. 11)

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(EXIT) Button (p. 16, 23, 28, 44)

(SEND/SET) Button
(p. 16, 23)

7

Display

```
10:00AM  JUL.  9
   7 new calls
```

In the stand-by mode, the display shows
the current time and date, and the number
of new Caller ID calls.
(Ex. 7 new calls have been received.)

```
12:00AM  JAN.  1
   0 new calls
```

When the clock needs adjusting, the time
and date flash (p. 18).

```
10:00AM  JUL.  9  RINGER OFF
   5 new calls
```

" RINGER OFF " is displayed when the ringer
volume is set to "Off" (p. 17).

Ex. Handset volume level: 2 or
Speaker volume level: 4

```
Low  ■■■■      High
```

The display shows the volume level.
You can select:
—4 levels (1–4) while using the handset
  (p. 23) or optional headset (p. 53).
—8 levels (1–8) while using the
  speakerphone (p. 23).

```
TINA ROBINSON
1-000-222-3333
```

When a call is received, the display shows
the caller's name and number after the
first ring.

```
JACK SMITH
111-2222
  3:10P JUN.10 ×3
      New
```

This is a name from the Caller List.
The display shows:
—the caller's name,
—the caller's number,
—the time and date of the last call
  (ex. Jun. 10, 3:10 PM),
—the number of times called (ex. 3 times),
  and
—if it is a new call or not.

8

```
┌─────────────────────────┐
│                      .   │
│ No  items  stored        │
│                          │
│                          │
└─────────────────────────┘
```

This display will be shown when:
—the redial list is empty,
—the Caller List is empty,
—the directory list is empty, or
—there are no stored items in the dialing
    button you pressed in the directory.

```
┌─────────────────────────┐
│ Tom  Jones               │
│ 098-765-4321             │
│ Private                  │
│ -Directory  list-        │
└─────────────────────────┘
```

This is a name from the directory list.
The stored name and phone number are
displayed.
"Private ring" has been selected for this
item (p. 40).

```
┌─────────────────────────┐
│                          │
│                          │
│ End  of  new  calls      │
│                          │
└─────────────────────────┘
```

You have finished viewing the NEW
CALLS in the Caller List. To exit, press
(EXIT).

```
┌─────────────────────────┐
│                      .   │
│                          │
│ End  of  old  calls      │
│                          │
└─────────────────────────┘
```

You have finished viewing the OLD
CALLS in the Caller List. To exit, press
(EXIT).

```
┌─────────────────────────┐
│                          │
│                          │
│     E  n  d              │
│                          │
└─────────────────────────┘
```

You are at the end of the Caller List.
To exit, press (EXIT).

Settings

Connecting the Handset/AC Adaptor

Handset

Handset
Cord

Fasten the AC adaptor cord to
prevent it from being disconnected.

Hook

Power Outlet
(AC 120 V, 60 Hz)
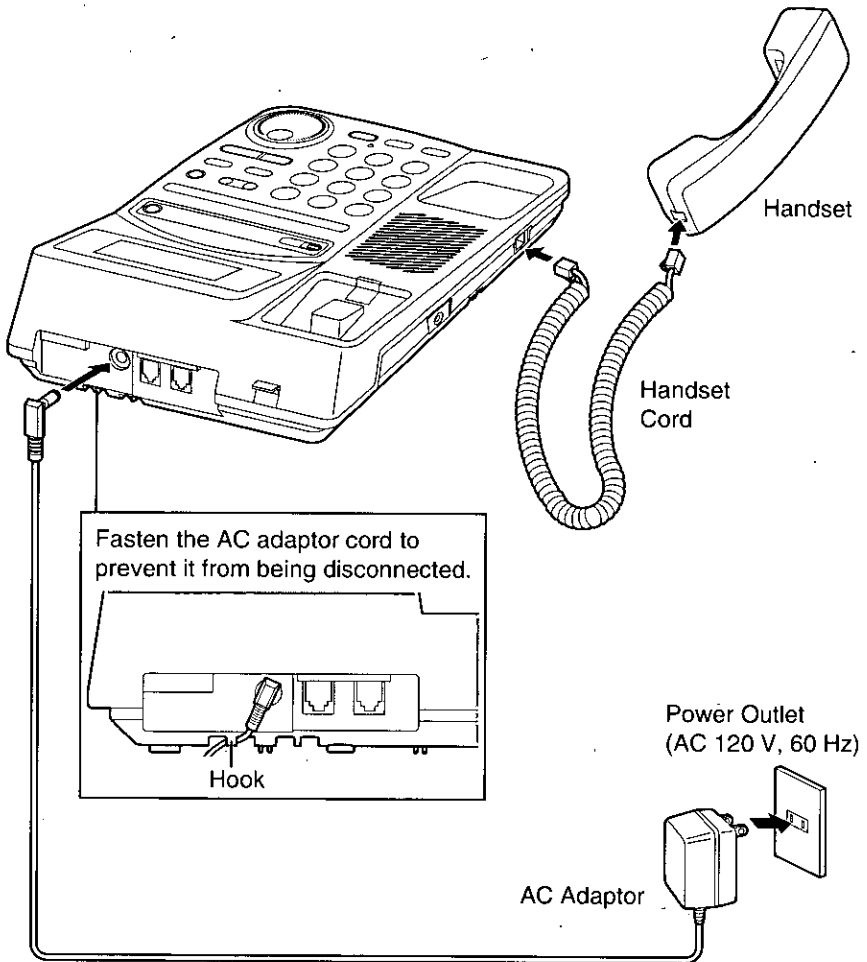
AC Adaptor

- Use only a Panasonic Handset for the KX-TSC50-B.
- USE ONLY WITH Panasonic AC ADAPTOR KX-A11
  (Order No. KX-A11-6).
- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The speakerphone will not work during a power failure. You must lift the handset to make or answer a call.
- If your unit is connected to a PBX which does not support Caller ID and voice mail services, you cannot access those services.

Connecting the Telephone Line Cord

Single-Line
Telephone Jack
(RJ11C)
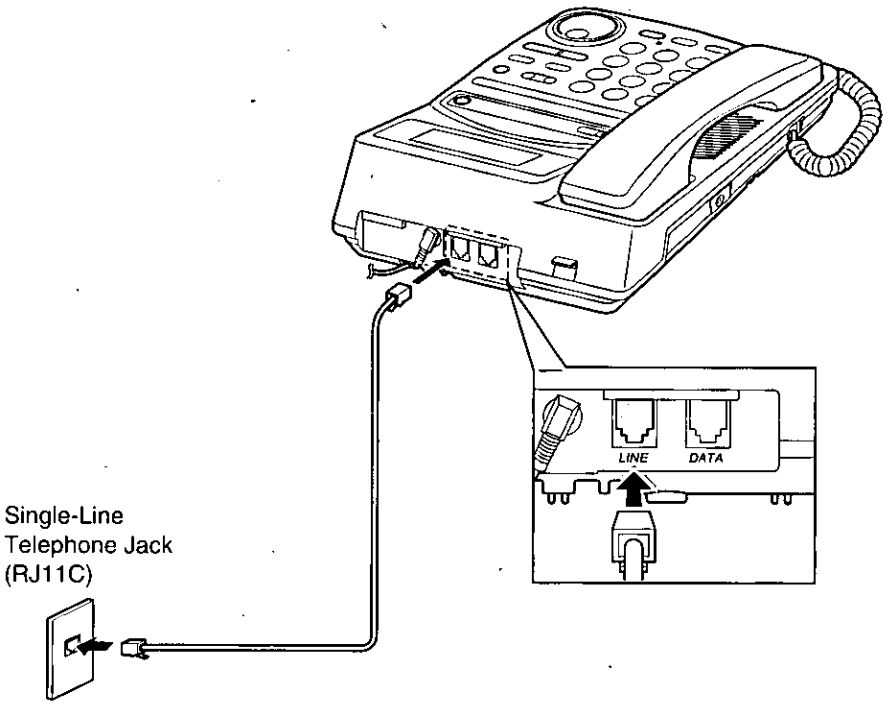
LINE   DATA

Connecting a Communication Device

If you connect a communication device (computer, modem, fax, answering machine, etc.) to the telephone line, you can connect it through this unit using the DATA jack (**–Data Port**).

After connecting the handset, AC adaptor and telephone line cord, connect the communication device telephone line cord to the DATA jack.

•Computer
•Modem
•Fax
•Answering machine
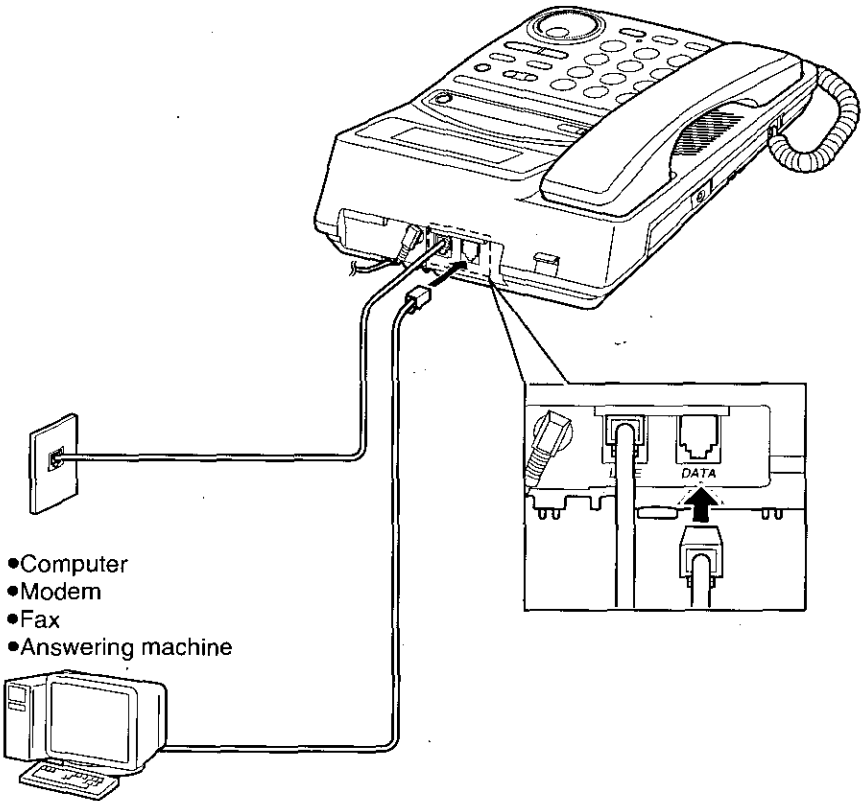
• Be sure that the communication device is not in use before making calls with this unit, or the communication device may not operate properly.

Wall Mounting

This unit can be mounted on a wall phone plate.

1 Pull down the handset hook until it locks, **so the tab holds the handset.**
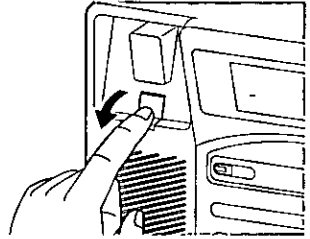
2 Connect the AC adaptor. Tuck the telephone line cord inside the wall mounting adaptor, then push it in the direction of the arrow.

 • The word "UP" should face upward.

To Power Outlet
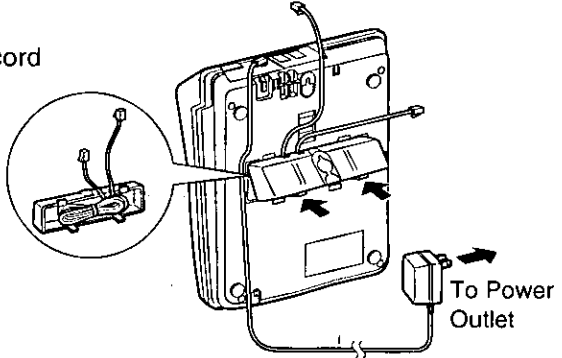
3 Connect the telephone line cord. Mount the unit, then slide down.
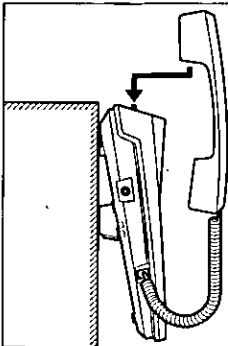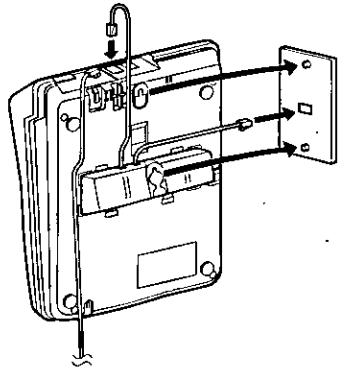
To temporarily set the handset down during a conversation, place it as shown here.

Preparation

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Selecting the Dialing Mode

You can select the dialing mode by programming. If you have touch tone service, set to "Tone". If rotary or pulse service is used, set to "Pulse". Your phone comes from the factory set to "Tone".

Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

1 Press (FUNCTION/EDIT).

• The display shows "Rotate JOG and press SET", then the function list.

```
→Date and time
 Area code
 2nd area code
-Function list-
```

2 Rotate (JOG DIAL) until "Dialing mode" is selected.

• The arrow points to "Dialing mode".

```
 2nd area code
→Dialing mode
 Voice mail #
-Function list-
```

3 Press (SEND/SET).

• The current mode is displayed.

```
Dialing mode
          :Tone
SET=Save
```

4 Rotate (JOG DIAL) until the desired mode is displayed.

```
Dialing mode
          :Pulse
SET=Save
```

5 Press (SEND/SET) (Save key).

• A long beep sounds and the mode is saved.

• The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
Dialing mode
          :Pulse
```

• You can exit the programming mode any time by pressing (EXIT).

Selecting the Line Mode

If the line is connected to a low voltage system such as a PBX, set to "B". If not, the unit will not ring and the Visual Call Waiting (Call Waiting ID) Service will not be available (p. 49).
Your phone comes from the factory set to "A".
Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

1 Press (FUNCTION/EDIT).

  • The display shows "Rotate JOG and press SET", then the function list.

```
→Date and time
  Area code
  2nd area code
 -Function list-
```

2 Rotate (JOG DIAL) until "Line mode" is selected.

  • The arrow points to "Line mode".

```
  Headset select
→Line mode
  Date and time
 -Function list-
```

3 Press (SEND/SET).

  • The current mode is displayed.

```
.Line mode
              :A
 SET=Save
```

4 Rotate (JOG DIAL) until the desired mode is displayed.

```
 Line mode
              :B
 SET=Save
```

5 Press (SEND/SET) (Save key).

  • A long beep sounds and the mode is saved.
  • The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
 Line mode
              :B
```

• You can exit the programming mode any time by pressing (EXIT).

Programmable Functions

Programming Summary of Preparations

You can program the following functions. The display shows the programming instructions. See the corresponding pages for the function details.

Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

Press (FUNCTION/EDIT).
• "Rotate JOG and press ·SET" is displayed, then the display changes to the function list.

↓

Rotate (JOG DIAL) until the desired function is selected.
• The arrow points to the selected function.

↓

Press (SEND/SET).
• **To adjust the date and time**, see page 18.
• **To store your area code**, see page 20.
• **To store the second area code**, see page 21.
• **To select the dialing mode**, see page 14.
• **To store a voice mail access number**, see page 37.
• **To set the voice mail tone**, see page 38.
• **To select the flash time**, see page 48.
• **To select the ringer volume**, see page 17.
• **To select the headset/speakerphone**, see page 52.
• **To select the line mode**, see page 15.

↓

When finished, press (SEND/SET) (Save key).

• You can exit the programming mode any time by pressing (EXIT).

Selecting the Ringer Volume

You can select the ringer volume by programming. Set to "High" or "Low".
When set to "Off", the unit will not ring. Your phone comes from the factory
set to "High".

1 Press (FUNCTION/EDIT).

```
→Date and time  .
 Area code
 2nd area code
-Function list-
```

2 Rotate (JOG DIAL) until "Ringer volume" is selected.

- The arrow points to "Ringer volume".

```
→Ringer volume
 Headset select
 Line mode
-Function list-
```

3 Press (SEND/SET).

- The current setting is displayed.

```
Ringer volume
          :High
SET=Save
```

4 Rotate (JOG DIAL) until the desired level is displayed.

```
Ringer volume
          :Low
SET=Save
```

5 Press (SEND/SET) (Save key).

- The selected volume rings.
  When set to "Off", a beep sounds.
- The display will return to the function list.
  To return to the stand-by mode, press (EXIT)
  or wait for 60 seconds.

```
Ringer volume
          :Low
```

- When set to "Off", " *RINGER OFF* " will be displayed when you exit the function list.

Date and Time Adjustment

If you subscribe to a Caller ID service (p. 26), please read the information on the next page.

1 Press [FUNCTION/EDIT].

```
→Date and time
 Area code
 2nd area code
 -Function list-
```

2 Rotate [JOG DIAL] until "Date and time" is selected.

• The arrow points to "Date and time".

```
→Date and time
 Area code
 2nd area code
 -Function list-
```

3 Press [SEND/SET].

• The current setting is displayed.

```
Date:1998.01.01
Time:12:00 AM
            SET=Save
```

4 ① Enter the current year by using a 4-digit number, then the month and day using 2-digit numbers. (Ex. To set Jan. 5, 1999, enter "1999 01 05".)

② Enter the current time (hour and minute) by using a 4-digit number. (Ex. To set 9:30, enter "0930".)

• If you enter a wrong number, rotate [JOG DIAL] to move the cursor to the incorrect number. Then make the correction.

```
Date:1999.01.05
Time:09:30 AM
            SET=Save
```

5 Press [1] (AM/PM key) to select "AM" or "PM".

```
Date:1999.01.05
Time:09:30 PM
1=AM/PM SET=Save
```

→

6 Press (**SEND/SET**) (Save key).

```
Date:1999.01.05
Time:09:30 PM
```

- A long beep sounds and the clock starts working.
- The display will return to the function list. To return to the stand-by mode, press (**EXIT**) or wait for 60 seconds.
- If 3 beeps sound, the entered date/time is not correct. Start from step 4.

- When you enter the hour in step 4, you cannot enter numbers greater than 12. **Do not use military time.** (To set 13:00, enter "0100" and select "PM" by pressing ①.)
- The accuracy of the clock is approximately ±45 seconds a month at room temperature.

If a power failure occurs or the AC adaptor is disconnected for more than 30 minutes, the adjusted date/time will be erased.

For Caller ID service users (p. 26)

- The date and time will be adjusted by the incoming Caller ID information after the first ring. In this case, the year will not be adjusted. To adjust the year, follow steps 1 to 3 on page 18. Enter the current year by using a 4-digit number, then press (**SEND/SET**).
- The Caller ID information will re-set the clock if the adjusted time and/or date is incorrect.
- The Caller ID information will automatically set the clock ahead at the beginning of summer and back at the beginning of winter.

Preparation

Storing Your Area Code

We recommend that you program your area code first before using the Caller ID feature (p. 26). Then incoming calls from the same area code will be recorded in the Caller List without the area code. You do not have to remove the area code before calling back or storing. Also, when incoming calls from a different area code are received, "1" will be added before the area code automatically.

1 Press (FUNCTION/EDIT).

```
→Date and time
  Area code
  2nd area code
 -Function list-
```

2 Rotate (JOG DIAL) until "Area code" is selected.

• The arrow points to "Area code".

```
  Line mode
  Date and time
→Area code
 -Function list-
```

3 Press (SEND/SET).

• The current setting is displayed. The factory preset is "---".

```
  Area code
            : - - -

SET=Save
```

4 Enter your area code.

• If you enter a wrong number, press (HOLD/CLEAR), then enter the correct number.

```
  Area code
            :123]

SET=Save
```

5 Press (SEND/SET) (Save key).

• A long beep sounds and the code is saved.
• The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
  Area code
            :123
```

To clear the area code

Press (FUNCTION/EDIT) ➡ rotate (JOG DIAL) until "Area code" is selected
➡ press (SEND/SET) ➡ (HOLD/CLEAR) ➡ (SEND/SET) (SAVE key).

• If a "2nd area code" has been stored (p. 21), it will also be cleared automatically.

Storing the Second Area Code

You can also program another local area code. This area code does not require dialing "1" before it. After storing this area code, the display will show the 10 digits (3-digit area code plus 7-digit phone number) after a call is received from that area code. Calls will be recorded in the Caller List without "1". You cannot store a second area code unless your area code is stored first (p. 20).

1 Press (FUNCTION/EDIT).

```
→Date and time
 Area code
 2nd area code
 -Function list-
```

2 Rotate (JOG DIAL) until "2nd area code" is selected.

- The arrow points to "2nd area code".

```
 Date and time .
 Area code
→2nd area code
 -Function list-
```

3 Press (SEND/SET).

- The current setting is displayed. The factory preset is "---".

```
2nd area code
           :---
 SET=Save
```

4 Enter the second area code.

- If you enter a wrong number, press (HOLD/CLEAR), then enter the correct number.

```
2nd area code
           :124|
 SET=Save
```

5 Press (SEND/SET) (Save key).

- A long beep sounds and the code is saved.
- The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.
- If 3 beeps sound, your area code is not stored. Store the code first (p. 20), then try again.

```
2nd area code
           :124
```

To clear the 2nd area code

Press (FUNCTION/EDIT) ➡ rotate (JOG DIAL) until "2nd area code" is selected ➡ press (SEND/SET) ➡ (HOLD/CLEAR) ➡ (SEND/SET) (SAVE key).

Making Calls

You can make a call by simply lifting the handset. To hang up, place the handset on the cradle.
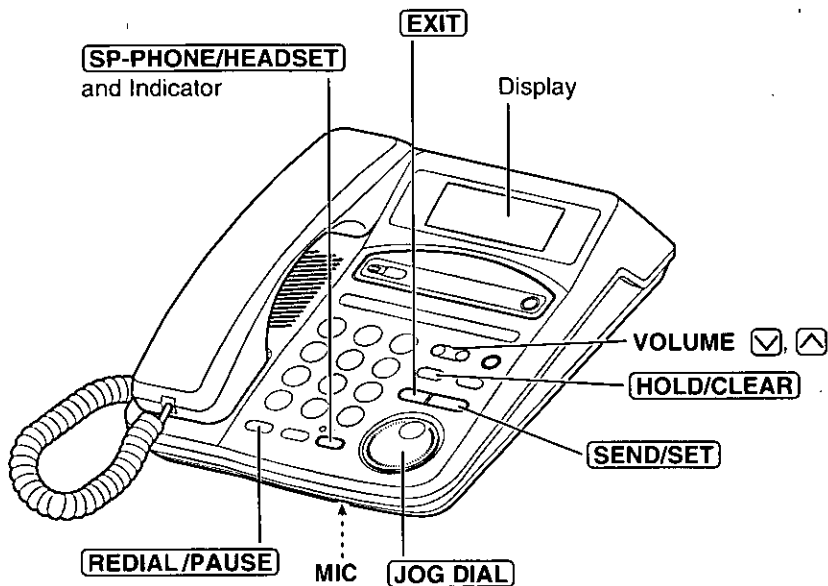
Using the speakerphone

1 Press (SP-PHONE/HEADSET).
- The indicator lights.

```
>
```

2 Dial a phone number.
- The dialed number is displayed.
- If you misdial, hang up and dial again.
- After a few seconds, the display will show the length of the call.

```
>111-2222
```

```
7:37PM  JUN.  1
        0-00-00
```

3 When the other party answers, talk into the MIC (microphone).

4 To hang up, press (SP-PHONE/HEADSET).
- The indicator light goes out.
- The display will return to the stand-by mode.

```
7:39PM  JUN.  1
        0-01-30
```
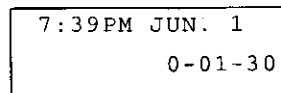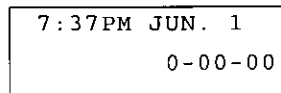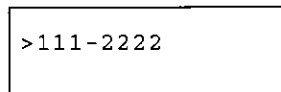
To dial after confirming the entered number

1 Enter a phone number.

- If you misdial, press (HOLD/CLEAR).
  Digits are erased from the right.
- To cancel, press (EXIT).

```
111-2222☐
```

2 Lift the handset or press
(SP-PHONE/HEADSET).

- After a few seconds, the display will show
  the length of the call.
- You can also press (SEND/SET) instead of
  (SP-PHONE/HEADSET).

```
>111-2222
```

```
7:37PM  JUN.  1
        0-00-00
```

3 When the other party answers, talk into the
handset or **MIC**.

4 To hang up, place the handset on the
cradle or press (SP-PHONE/HEADSET).

- The display will return to the stand-by
  mode.

```
7:39PM  JUN.  1
        0-01-30
```

Basic Operation

To adjust the handset volume (4 levels) or the speaker volume (8 levels)

While using the handset or speakerphone,
press **VOLUME** ⌃ or ⌄.

- The display shows the volume level.
- After a few seconds, the display will return to
  the length of the call.

Ex. Handset volume level: 4 or
Speaker volume level: 8

```
Low ████████High
```

During the speakerphone operation

- For best performance, talk alternately with the caller in a quiet room.
- If the caller complains that your voice is hard to hear, press
  VOLUME ⌄ to decrease the speaker volume.
- If the other party's voice from the speaker cuts in/out during a
  conversation, press **VOLUME** ⌄ to decrease the speaker volume.
- You can switch to the handset by lifting it up. To switch back to the
  speakerphone, press (SP-PHONE/HEADSET).

23

➡ Making Calls

To redial the last number dialed

Lift the handset or press (SP-PHONE/HEADSET) ➡ press (REDIAL/PAUSE).

To redial after confirming the numbers in the redial list

The unit automatically stores the last 5 numbers dialed into the redial list.

1. Press (REDIAL/PAUSE).
   * The display shows the last number dialed.

```
321-5555
-Redial list-
```

2. If necessary, rotate (JOG DIAL) until the desired number is selected.
   * To search from the most recent to oldest number, rotate to the right. To search from the oldest to most recent number, rotate to the left.
   * To cancel, press (EXIT).

3. Lift the handset or press (SP-PHONE/HEADSET).
   * You can also press (SEND/SET) instead of (SP-PHONE/HEADSET).

To clear a number in the redial list, press (REDIAL/PAUSE) ➡ rotate (JOG DIAL) until the desired number is selected ➡ press (HOLD/CLEAR).

To put a call on hold

Press (HOLD/CLEAR).

* The SP-PHONE/HEADSET indicator flashes.
* If you are using the handset, you may place it on the cradle.

To release the hold

Lift the handset or press (SP-PHONE/HEADSET).

* If another phone is connected on the same line, you can also release the hold by lifting its handset.

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Answering Calls

When a call is being received, the unit rings and the CALLER ID indicator flashes quickly. You can answer a call by simply lifting the handset.
If you subscribe to a Caller ID service, the calling party information will be displayed after the first ring (p. 26). Please wait until the second ring to answer a call in order to view the Caller ID information.

Using the speakerphone

1 Press [SP-PHONE/HEADSET].

2 Talk into the **MIC** (microphone).

3 To hang up, press [SP-PHONE/HEADSET].

CALLER ID Indicator

[SP-PHONE/HEADSET]

MIC
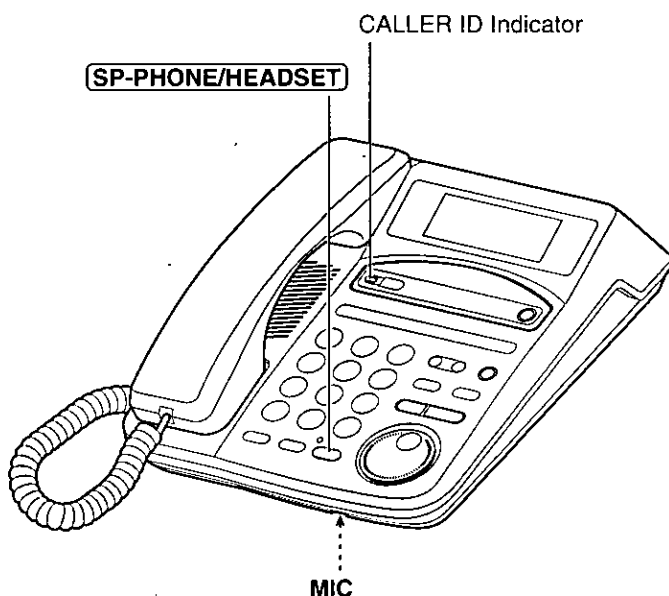
• When the ringer volume is set to "Off", the unit will not ring (p. 17).

Caller ID Service

This unit is compatible with a Caller ID service offered by your telephone company. After you subscribe to a Caller ID service, the calling party information will be displayed after the first ring.

The unit can record information of up to 30 different callers, including the time and date received and the number of times called, in the Caller List. The Caller List information is sorted by the most recent to oldest call. When the 31st call is received, the first call is deleted.

Using the list, you can automatically call back a caller. You can store the caller's name and number from the Caller List into the directory.

If you subscribe to a Visual Call Waiting (Call Waiting ID) service, when a second call is received, the new caller's name and phone number will be displayed (p. 49).

How caller information is displayed when a call is received

The display shows the caller's name and number after the first ring.

```
TINA ROBINSON
1-000-222-3333
```

After you answer the call, the display will show the length of the call.

```
10:00AM JUN.10
        0-00-00
```
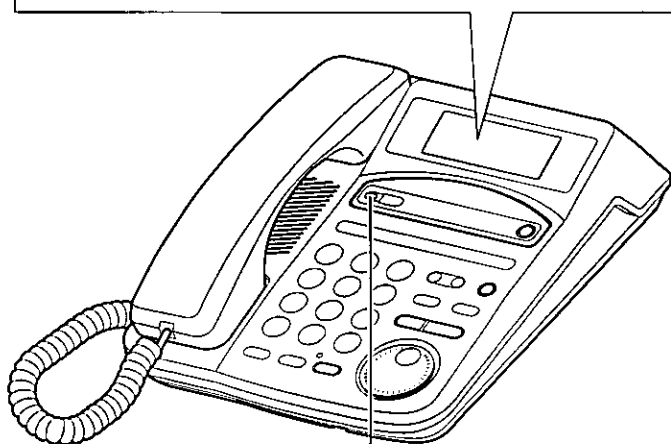

The CALLER ID indicator will flash quickly when a call is being received.

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- In some cases, caller information cannot be displayed. The display will show as follows.

The caller dialed from an area which does not provide a Caller ID service.

```
Out of area
```

The caller has requested not to display their information.

```
Private caller
```

- If your unit is connected to a PBX which does not support Caller ID services, you cannot access those services.
- In some calling areas, the name display service may not be available. For further information, please contact your telephone company.

To check the number of new calls

In the stand-by mode, the display shows the current time and date, and the number of new calls.

```
10:00AM JUL. 9
10 new calls
```

- For example, if you have received 10 new calls, the display on the right will be shown.
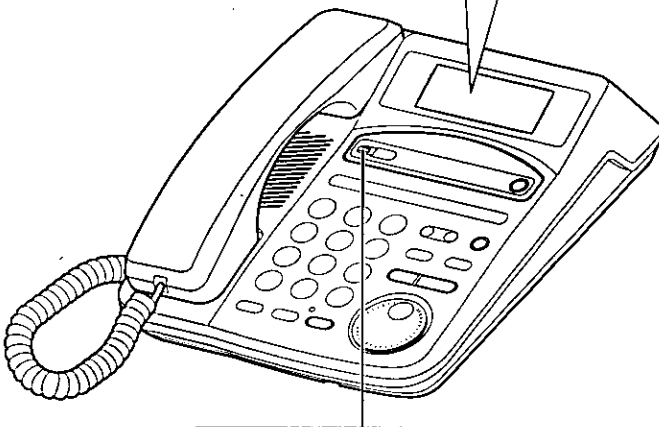
The CALLER ID indicator flashes slowly when new calls have been received.

Using the Caller List

Viewing the Caller List

To confirm who has called you, follow the steps below.

1 Press (CALLER ID) to enter the list.

• The number of new calls will be shown.

```
2 new calls
```

2 Rotate (JOG DIAL).

• To search from the most recent to oldest call, rotate to the right.
  To search from the oldest to most recent call, rotate to the left.
• To scroll between callers, rotate (JOG DIAL).

3 To exit the list, press (EXIT).

• The display will return to the stand-by mode.
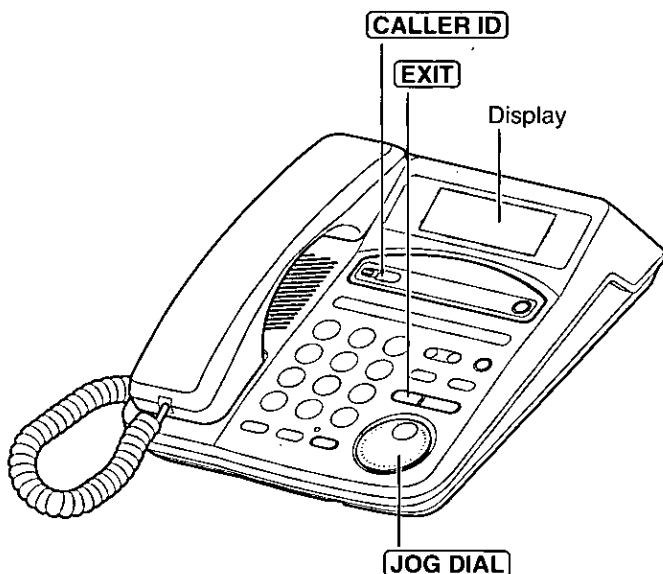
• Once NEW calls have been checked, they will be listed as OLD.
• When you answer a call or call back, the caller information will be listed as OLD.
• If "No items stored" is displayed in step 1, the Caller List is empty. The display will return to the stand-by mode.
• If more than one call is received from the same caller, the date and time of the last call will be recorded. Also, when the same caller calls again, the OLD call entry will be deleted.

Ex. When you search from the most recent call:

Press [CALLER ID] to enter the list.

▼

```
2 new calls
```

Rotate [JOG DIAL] to the right.

```
* JACK SMITH
  111-2222
    3:10P JUN.10
        New
```

Rotate [JOG DIAL] to the right.

```
* KEVIN PARKER
  333-4444
  11:50A JUN.10 ×3
        New
```

Rotate [JOG DIAL] to the right.

```
End of new calls
```

Rotate [JOG DIAL] to the right.

```
* NANCY BROWN
  222-3333
    1:54A JUN. 9 ×2
```

Rotate [JOG DIAL] to the right.

```
        End
```

Rotate [JOG DIAL] to the right.

*If the caller does not have name information, the display will only show the phone number.

To return to the previous caller, rotate [JOG DIAL] to the left.

To exit the Caller List, press [EXIT].
- The display will return to the stand-by mode.

Display signification:

New: You have not checked the caller information, answered the call or called back the caller.

×2-×9: The number of times they called (up to 9).

Calling Back from the Caller List
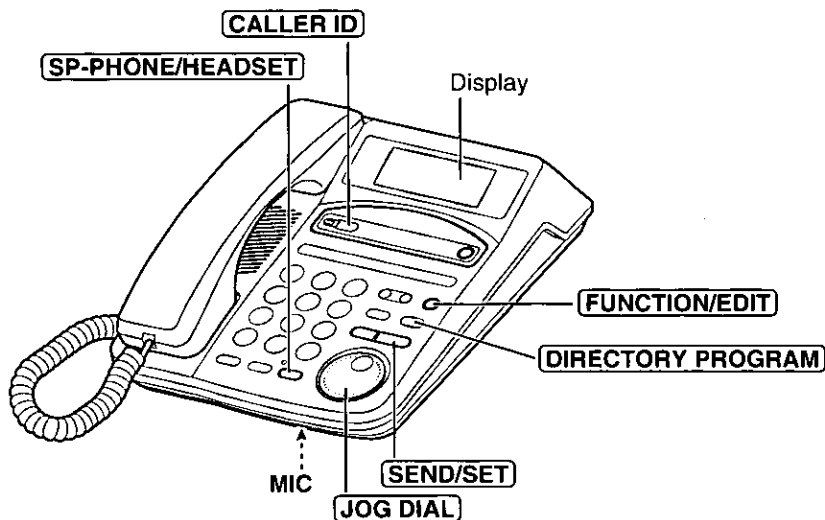
[CALLER ID]
[SP-PHONE/HEADSET]   Display

[FUNCTION/EDIT]

[DIRECTORY PROGRAM]

MIC   [SEND/SET]
[JOG DIAL]

1 Press [CALLER ID] to enter the list.

• The number of new calls will be shown.

10 .new calls

2 Rotate [JOG DIAL] until the desired caller is displayed.

JACK SMITH 111-2222 3:10P JUN.10 New

3 Lift the handset or press [SP-PHONE/HEADSET].

• The displayed phone number is dialed automatically.

• You can also press [SEND/SET] instead of [SP-PHONE/HEADSET].

JACK SMITH >111-2222

4 When the other party answers, talk into the handset or **MIC**.

5 To hang up, place the handset on the cradle or press [SP-PHONE/HEADSET].

• In some cases, you may have to edit the number before dialing (p. 31). (Ex. You may have to add "1" for long distance calls.) If you did not store your area code (p. 20), the edited number will not be saved in the Caller List.

• If a phone number is not displayed in the caller information, you cannot call back that caller.

Editing the Caller's Phone Number

The unit can edit a phone number into one of 4 patterns.

1 Press (**CALLER ID**) to enter the list.

• The number of new calls will be shown.

```
10 new calls
```

2 Rotate (**JOG DIAL**) until the desired caller is displayed.

```
FRED PARKER
321-5555
  3:10P JUN.10
     New
```

3 Press (**FUNCTION/EDIT**) to select a pattern. Each time you press (**FUNCTION/EDIT**), the number is rearranged into one of 4 different patterns.

ⓐ 1 – | Phone no. |

ⓑ 1 – | Area code | – | Phone no. |

ⓒ | Area code | – | Phone no. |

ⓓ | Phone no. |

• The order in which patterns ⓐ – ⓓ are displayed depends on which pattern the telephone number is displayed in step 2.

ⓐ
```
FRED PARKER
1-321-5555
```

ⓑ
```
FRED PARKER
1-234-321-5555
```

ⓒ
```
FRED PARKER
234-321-5555
```

ⓓ
```
FRED PARKER
321-5555
```
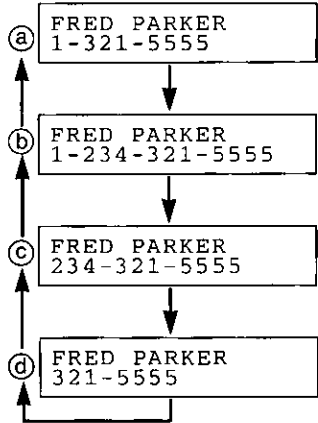
4 After you edit the number into the desired pattern, you can continue with calling back or storing procedures.

To call back, lift the handset or press (**SP-PHONE/HEADSET**) (p. 30).

To store the caller's name and number in the directory, press (**DIRECTORY PROGRAM**), then follow the instructions on the display (see page 32, from step 3).

Advanced Operation

Storing the Caller List Information in the Directory

You can store names and numbers that are in the Caller List into the directory. You can also select a separate ring tone for callers by selecting "Private ring" (p. 40).

1 Press (CALLER ID) to enter the list.

• The number of new calls will be shown. .

```
10 new calls
```

**2** Rotate (JOG DIAL) until the desired caller is displayed.

• If the number requires editing, see page 31.

```
JACK SMITH
111-2222
3:10P JUN.10
      New
```

3 Press (DIRECTORY PROGRAM).

```
Save directory ?
JACK SMITH
111-2222
*=Yes        #=No
```

4 Press ⊛ (Yes key).

```
Private ring ?

*=Yes        #=No
```

If the caller information you want to store does not have name information, "Save name ?" will be displayed.

```
Save name ?
111-2222
*=Yes        #=No
```

a) If you do not want to enter a name, press ⌗ (NO key).

```
Private ring ?

*=Yes        #=No
```

b) If you want to enter a name, press ⊛ (Yes key). Then enter the name (p. 42). When finished, press (SEND/SET) (Next key).

```
Enter name >
▯
JOG=←→   SET=Next
```

5   a) If you do not want to select private ring, press # (NO key).

```
JACK SMITH
111-2222
*** Saved ***
```

     b) If you want to select private ring, press * (YES key).

```
JACK SMITH
111-2222
Private
*** Saved .***
```

- A long beep sounds and the programming is completed.
- The display will return to step 2. You can continue storing another item. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

(CALLER ID)

(EXIT)

Display

(DIRECTORY PROGRAM)

(*)

(#) (SEND/SET)

(JOG DIAL)
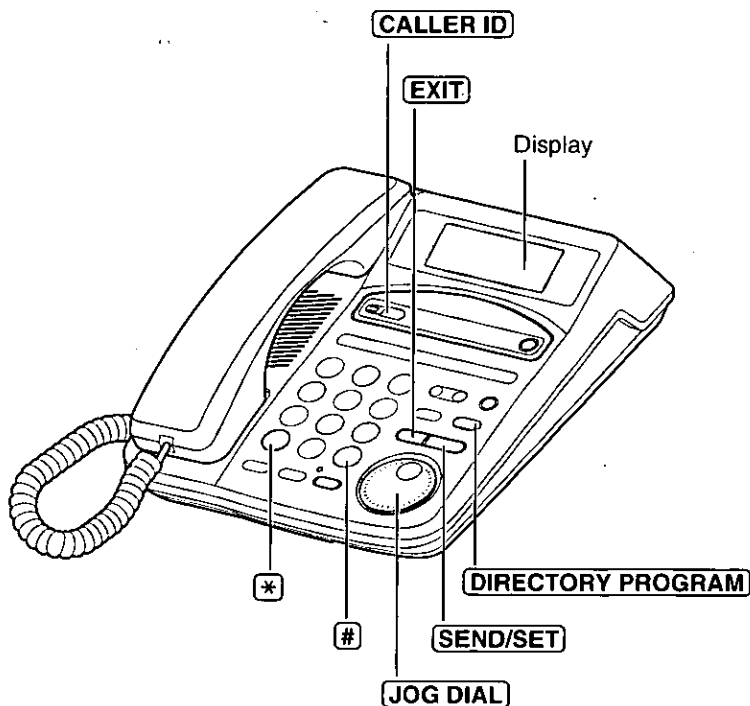
- If the display shows "Directory full" in step 3, the display will return to step 2. Press (EXIT) to exit the list. To clear other stored items from the directory, see page 47.
- You cannot store caller information in the directory when a phone number is not displayed.

Clearing the Caller List Information

You can clear some or all of the entries in the Caller List.

To clear a specific caller from the Caller List

1 Press (CALLER ID) to enter the list.

• The number of new calls will be shown.

```
10 new calls
```

2 Rotate (JOG DIAL) until the caller you want to clear is displayed.

```
TOM REAGAN
444-5555
3:10P JUN.10
```

3 Press (HOLD/CLEAR).

• A long beep sounds and the information is erased.
• In a few seconds, the display will show the previous caller information.
• To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
C l e a r
```


CALLER ID
EXIT
Display
HOLD/CLEAR
JOG DIAL
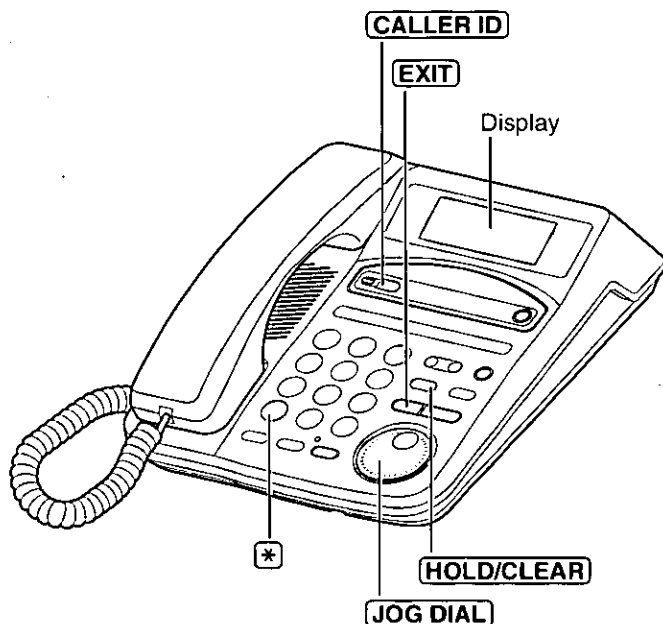
To clear all of the entries in the Caller List

1 Press (CALLER ID) to enter the list.

• The number of new calls will be shown.

```
0 new calls
```

2 Press (HOLD/CLEAR).

```
All clear ?
*=Yes        #=No
```

3 Press ✱ (YES key).

• A long beep sounds and all of the entries are erased.

• The display will return to the stand-by mode.

```
All clear
```

• You can also clear all of the entries by setting the display to "End of new calls", "End of old calls" or "End" by rotating (JOG DIAL) after pressing (CALLER ID) in step 1.

Advanced Operation

Voice Mail Service

Voice mail service is an electronic on-line answering system offered by your telephone company. After you subscribe, the voice mail system can answer calls automatically when your line is busy or if calls are not answered. Callers can leave messages by following the pre-recorded instructions. When voice mail messages are recorded, the (VOICE MAIL) button will flash. You can access the voice mail system quickly by pressing (VOICE MAIL).

To use the (VOICE MAIL) button, you must store your access phone number first.

(HOLD/CLEAR) Display

(VOICE MAIL)

(FUNCTION/EDIT)

(SEND/SET)

(EXIT)

(JOG DIAL)
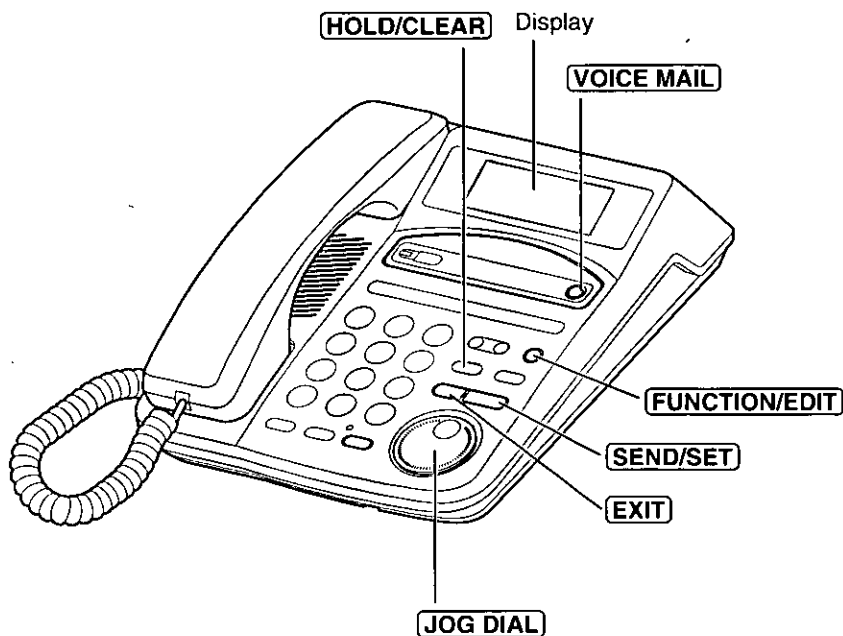
Storing an Access Number in Your Voice Mail

Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

1 Press (FUNCTION/EDIT).

```
→Date and time
 Area code
 2nd area code
-Function list-
```

2 Rotate (JOG DIAL) until "Voice mail #" is selected.

• The arrow points to "Voice mail #".

```
 Dialing mode
→Voice mail #
 Voice mail tone
-Function list-
```

3 Press (SEND/SET).

• "Enter V.M. #" is displayed.
• The current set number is displayed, if it was stored beforehand.

```
Enter V.M. # >
□
SET=Save
```

4 Enter your access phone number up to 32 digits.

• If you misdial, press (HOLD/CLEAR). Digits are erased from the right.

```
12-345-6789□

SET=Save
```

5 Press (SEND/SET) (Save key).

• A long beep sounds and the number is saved.
• The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
12-345-6789

*** Saved ***
```

Advanced Operation

• You can exit the programming mode any time by pressing (EXIT).

Setting the Voice Mail Tone

If your voice mail service sends a voice mail tone after a new message has finished recording, set to "On". The (VOICE MAIL) button will flash if a message was recorded in your mailbox. You will hear a series of voice mail tones then a dial tone after lifting the handset or pressing (SP-PHONE/HEADSET). (Contact your service provider about your service.) Set to "Off" when:

— you do not subscribe to a voice mail service,
— your voice mail service does not send a voice mail tone, or
— the unit is connected to a PBX.

· Your phone comes from the factory set to "On".

Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

1 Press (FUNCTION/EDIT).

```
→Date and time
  Area code
  2nd area code
 -Function list-
```

2 Rotate (JOG DIAL) until "Voice mail tone" is selected.

• The arrow points to "Voice mail tone".

```
  Voice mail #
→Voice mail tone
  Flash time
 -Function list-
```

3 Press (SEND/SET).

• The current setting, "On" (factory preset) or "Off", is displayed.

```
Voice mail tone
           :On
SET=Save
```

4 Rotate (JOG DIAL) until the desired setting is displayed.

```
Voice mail tone
           :Off
SET=Save
```

5 Press (SEND/SET) (Save key).

• A long beep sounds and the setting is saved.
• The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
Voice mail tone
           :Off
```

• You can exit the programming mode any time by pressing (EXIT).

Listening to Voice Mail Message(s)

Up to 4 minutes after receiving a voice mail message, the (VOICE MAIL) button will flash. To listen to your voice mail, perform the following steps.

1 Press (VOICE MAIL).

- The speakerphone is turned on.
- The unit is connected to the telephone line and automatically dials the number.

```
>12-345-6789
```

2 Follow the pre-recorded instructions.

3 When finished, press (SP-PHONE/HEADSET).

- The display will return to the stand-by mode.

Display

(VOICE MAIL)

(FUNCTION/EDIT)

(SP-PHONE/HEADSET)
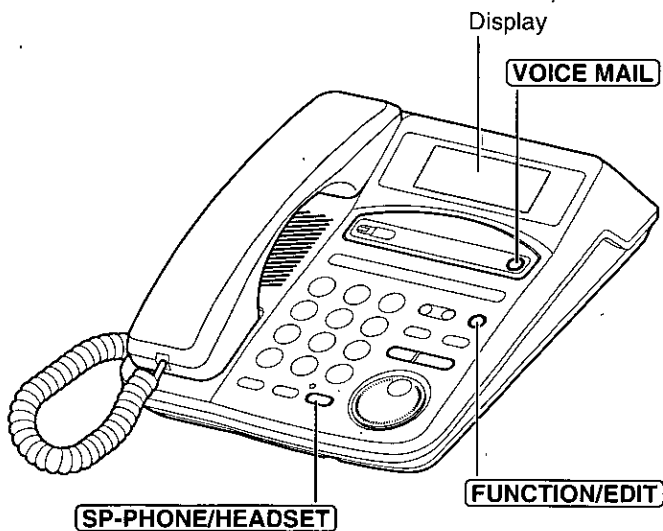
- When the (VOICE MAIL) button still flashes even if you have listened to your voice mail message(s), press and release (FUNCTION/EDIT). Then press and hold (VOICE MAIL) until the unit beeps and press (EXIT). The button will turn off.
- If your voice mail service uses a voice mail tone and the recorded message is over 3 minutes long, the (VOICE MAIL) button may not flash.
- If your voice mail service uses a voice mail tone, the tone will be heard from any parallel connected phone. If you use another phone to retrieve messages, you have to dial your access number manually.

Advanced Operation

Using the Directory

You can store up to 50 names and phone numbers in the directory. All directory items are sorted by the first word in alphabetical order.
Using the directory, you can make a call by selecting a name on the display.
You can also select a separate ring tone for items by selecting "Private ring" during storing. "Private ring" will sound after the first ring.

Storing Names and Numbers in the Directory

The dialing buttons can be used to enter letters and character symbols.

(EXIT)

(HOLD/CLEAR)

Display

(REDIAL/PAUSE)

(DIRECTORY PROGRAM)

(SEND/SET)
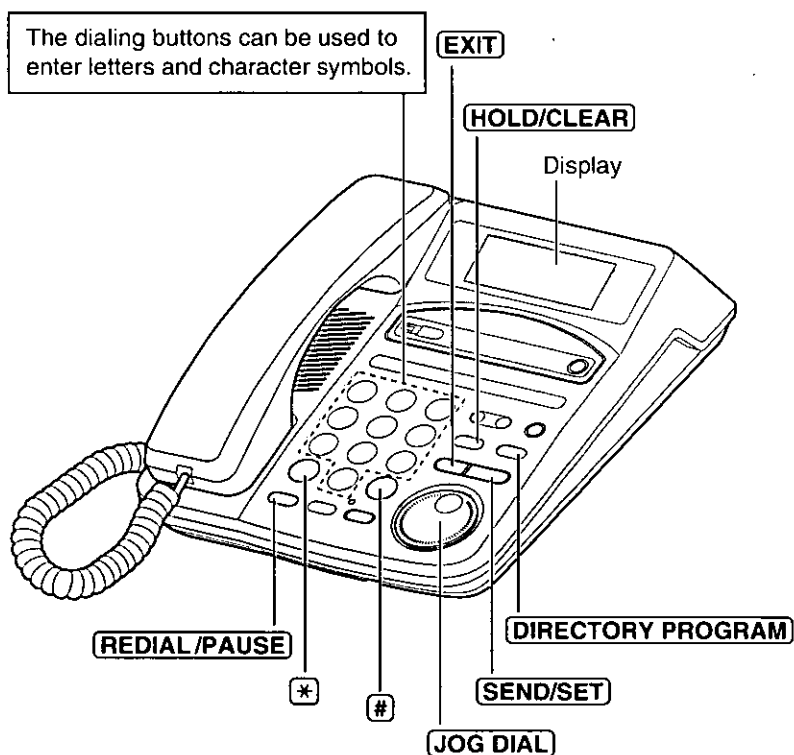
(JOG DIAL)

1 Press (DIRECTORY PROGRAM).

- The display shows the number of remaining directory items, then "Enter name".

```
Program new
          directory
50
items remaining
```
```
Enter name >
□
JOG=(←→)   SET=Next
```

2 Enter a name up to 16 characters with the dialing buttons, (JOG DIAL), ✳ (←) or ⌗ (→).

- See the steps for entering names and symbols (p. 42).

```
Enter name >
Tom Jones̲
JOG=(←→)   SET=Next
```

3 Press (SEND/SET) (Next key).

```
Enter phone no.>
□
```

4 Enter a phone number up to 16 digits.

- If you misdial, press (HOLD/CLEAR). The digit at the cursor is erased.
- You can use (JOG DIAL) to move the cursor to the right or left.

```
Enter phone no.>
0987654321□
JOG=(←→)   SET=Next
```

5 Press (SEND/SET) (Next key).

```
Private ring ?

✳=Yes        ⌗=No
```

6 a) If you do not want to select private ring, press ⌗ (NO key).

```
Tom Jones
098-765-4321
✳✳✳  Saved   ✳✳✳
```

b) If you want to select private ring, press ✳ (YES key).

```
Tom Jones
098-765-4321
Private
✳✳✳  Saved   ✳✳✳
```

- A long beep sounds and the item is saved.
- The display will return to step 1. You can continue storing another item.
- To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

Advanced Operation

- If a pause is required for dialing, (REDIAL /PAUSE) can be stored in a phone number counting as one digit (p. 50) in step 4.
- You can exit the programming mode any time by pressing (EXIT).
- If the display shows "Directory full" in step 1, the display will return to the stand-by mode. Erase other stored items from the directory (p. 47).

Steps for Entering Names and Symbols

The dialing buttons can be used to enter letters and character symbols.
Pressing each button selects a character as shown below.
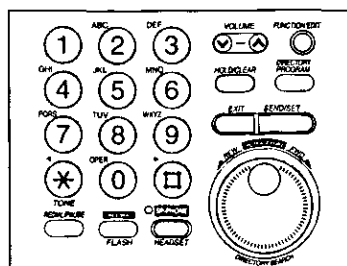
	Number of times you press each key										
Keys	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
①	#	&	'	(	)	*	,	−	.	/	1
②	A	B	C	a	b	c	2				
③	D	E	F	d	e	f	3				
④	G	H	I	g	h	i	4				
⑤	J	K	L	j	k	l	5				
⑥	M	N	O	m	n	o	6				
⑦	P	Q	R	S	p	q	r	s	7		
⑧	T	U	V	t	u	v	8				
⑨	W	X	Y	Z	w	x	y	z	9		
⓪	0	Blank									
(JOG DIAL)	To move the cursor ☐ to the right or left.										
✱	To move the cursor ☐ to the left.										
#	To move the cursor ☐ to the right.										

If you make a mistake while entering a name

Use (JOG DIAL) to move the cursor to the incorrect character, then make the correction. You can also use ✱ (←) or # (→) to move the cursor for corrections. You can delete one character by pressing (HOLD/CLEAR).

For example, to enter "Tom Jones":

1 Press (DIRECTORY PROGRAM).

- The display shows the number of remaining directory items, and then the display on the right is shown.

```
Enter name >
[]
JOG=←→   SET=Next
```

2 Press 8.

```
Enter name >
T
JOG=←→   SET=Next
```

3 Press 6 six times, then press # (→) to move the cursor to the right.

```
Enter name >
To[]
JOG=←→   SET=Next
```

4 Press 6 four times.

```
Enter name >
Tom
JOG=←→   SET=Next
```

5 Press # (→) twice to enter a blank.

```
Enter name >
Tom []
JOG=←→   SET=Next
```

6 Press 5.

```
Enter name >
Tom J
JOG=←→   SET=Next
```

7 Press 6 six times, then press # (→) to move the cursor to the right.

```
Enter name >
Tom Jo[]
JOG=←→   SET=Next
```

8 Press 6 five times.

```
Enter name >
Tom Jon
JOG=←→   SET=Next
```

9 Press 3 five times.

```
Enter name >
Tom Jone
JOG=←→   SET=Next
```

10 Press 7 eight times.

```
Enter name >
Tom Jones
JOG=←→   SET=Next
```

11 When finished, press (SEND/SET) (NEXT key).

- To continue entering a phone number, see page 41, from step 4.

```
Enter phone no.>
[]
```

Advanced Operation

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Finding Items in the Directory

Rotate (JOG DIAL) until the desired name is displayed.
• All directory items are sorted in the following order:

Alphabet

Telephone number
(When a name is not stored)

Symbol

Number, ✱, #

Rotate to the left.   Rotate to the right.
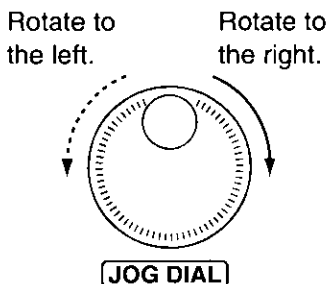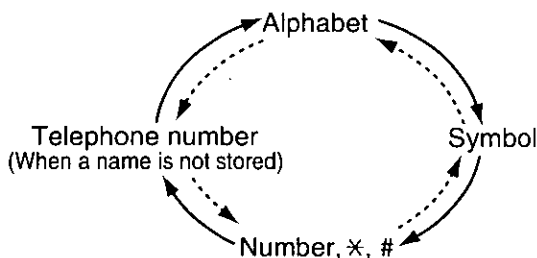
(JOG DIAL)

To search for a name by the initial

1 Rotate (JOG DIAL) to enter the directory.

```
ANN
456-7890
-Directory list-
```

2 Press the dialing button for the first letter of the desired name repeatedly (see the index table below).
Ex. To find "Frank", press ③ repeatedly until the first item under "F" is displayed.

```
Fanny
123-4567
-Directory list-
```

3 Rotate (JOG DIAL) to the right until the desired name is displayed.

```
Frank
321-5555
-Directory list-
```

Keys	Index	Keys	Index
①	Other symbols, 1	⑥	M, N, O, 6
②	A, B, C, 2	⑦	P, Q, R, S, 7
③	D, E, F, 3	⑧	T, U, V, 8
④	G, H, I, 4	⑨	W, X, Y, Z, 9
⑤	J, K, L, 5	⓪	0

• You can leave the directory any time by pressing press (EXIT).

Dialing from the Directory
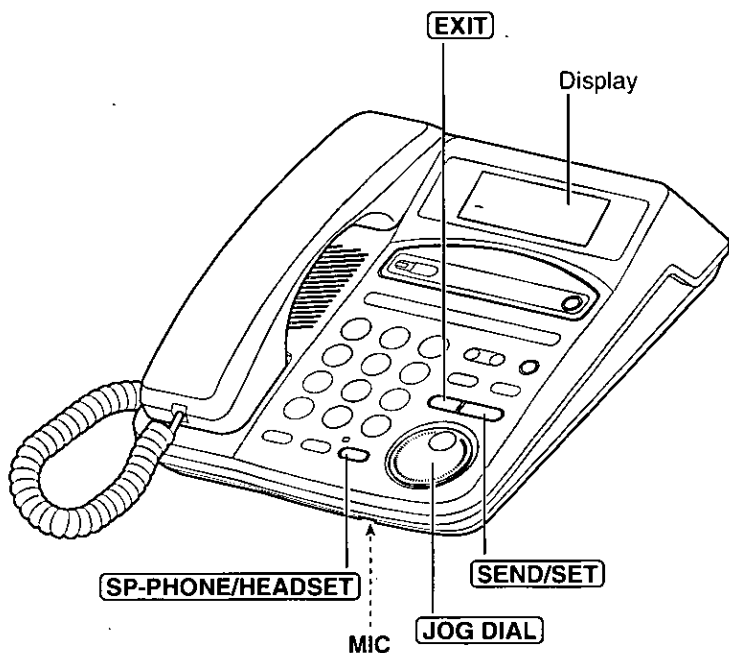
EXIT

Display

SP-PHONE/HEADSET

MIC   JOG DIAL

SEND/SET

1 Rotate (JOG DIAL) until the desired name is displayed.

- You can also find the item by searching by the initial (p. 44).
- To exit the directory, press (EXIT).

```
Mary
456-7890
-Directory list-
```

2 Lift the handset or press (SP-PHONE/HEADSET).

- The number is dialed automatically.
- You can also press (SEND/SET) instead of (SP-PHONE/HEADSET).

```
Mary
>456-7890
```

```
7:39PM JUN. 1
         0-00-00
```

3 When the other party answers, talk into the handset or **MIC**.

4 To hang up, place the handset on the cradle or press (SP-PHONE/HEADSET).

Advanced Operation

Changing an Item in the Directory

1 Rotate (JOG DIAL) until the desired item is displayed.

• You can also find the item by searching by the initial (p. 44).

```
Jane
123-4567

-Directory list-
```

2 Press (FUNCTION/EDIT).

• If you do not need to change the name, go to step 4.

```
Enter name >
Jane
JOG=←→  SET=Next
```

3 Edit the name by using the dialing buttons, (JOG DIAL), ✱ (←) or # (→) (p. 42) up to 16 characters.

```
Enter name >
Jane Walker
JOG=←→  SET=Next
```

4 Press (SEND/SET) (Next key).

• If you do not need to change the number, go to step 6.

```
Enter phone no.>
1234567
JOG=←→  SET=Next
```

5 Enter the new number up to 16 digits.

• You can use (JOG DIAL) to move the cursor for corrections.

• The digit at the cursor is erased by pressing (HOLD/CLEAR).

```
Enter phone no.>
0981234567
JOG=←→  SET=Next
```

6 Press (SEND/SET) (Next key).

```
Private ring ?

✱=Yes     #=No
```

7 a) If you do not want to select private ring, press # (NO key).

```
Jane Walker
098-123-4567
✱✱✱  Saved  ✱✱✱
```

b) If you want to select private ring, press ✱ (YES key).

• A long beep sounds and the changed item is saved.

• The display will return to step 1. You can continue editing another item.

• To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
Jane Walker
098-123-4567
Private
✱✱✱  Saved  ✱✱✱
```

• You can exit the programming mode any time by pressing (EXIT).

Clearing an Item from the Directory

1 Rotate (JOG DIAL) until the desired name is displayed.

- You can also find the item by searching by the initial (p. 44).

Ex. To erase "Helen"

```
Helen
333-4444
-Directory list-
```
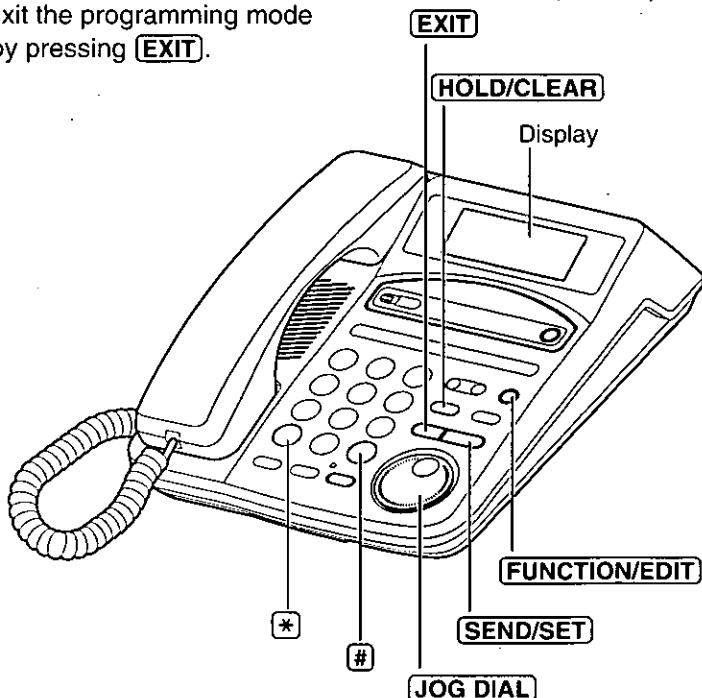
2 Press (HOLD/CLEAR).

```
Clear directory?
Helen
333-4444
*=Yes        #=No
```
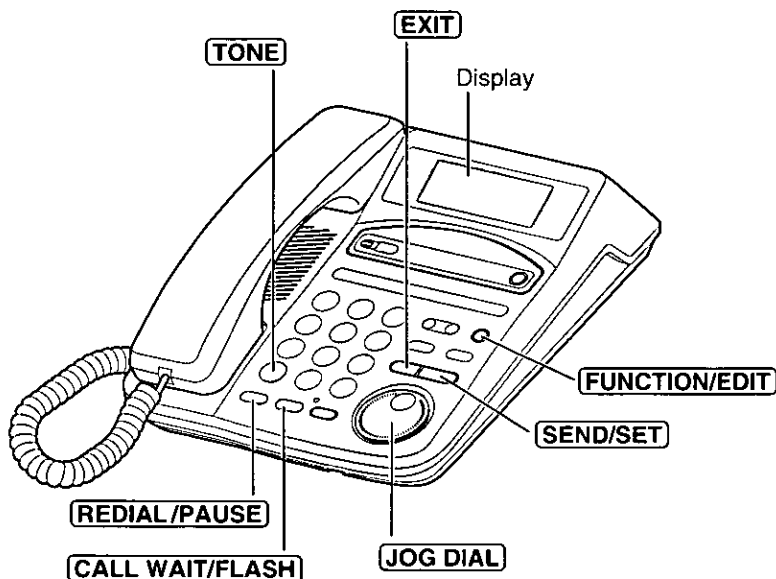
3 Press (*) (Yes key).

- A long beep sounds and the item is erased.
- In a few seconds, the display will show the next item.
- To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
    C l e a r
```

- You can exit the programming mode any time by pressing (EXIT).

(EXIT)

(HOLD/CLEAR)

Display

(FUNCTION/EDIT)

(*)

(#)

(SEND/SET)

(JOG DIAL)

Special Features

(TONE)
(EXIT)
Display
(FUNCTION/EDIT)
(SEND/SET)
(REDIAL /PAUSE)
(CALL WAIT/FLASH)
(JOG DIAL)

FLASH Button

Pressing (CALL WAIT/FLASH) allows you to use special features of your host PBX such as transferring an extension call or accessing a special telephone service (optional), such as call waiting.

Selecting the flash time

The flash time depends on your telephone exchange or host PBX. You can select from flash times "5 to 995 ms (milliseconds)" by programming. Your phone comes from the factory set to "700 ms". **Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.**

1 Press (FUNCTION/EDIT).

```
→Date and time
  Area code
  2nd area code
 -Function list-
```

2 Rotate (JOG DIAL) until "Flash time" is selected.

- The arrow points to "Flash time".

```
→Flash time
  Ringer volume
  Headset select
 -Function list-
```

3 Press (SEND/SET).

• The current setting is displayed.

```
Flash time
         :700ms
SET=Save
```

4 Rotate (JOG DIAL) until the desired time is displayed.

```
Flash time
         :995ms
SET=Save
```

5 Press (SEND/SET) (Save key).

• A long beep sounds and the time is saved.

• The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

```
Flash time
         :995ms
```

• You can exit the programming mode any time by pressing (EXIT).

• If you are connected via a PBX, a longer flash time may be necessary to use PBX functions (transferring a call, etc.). Consult with your PBX supplier for the correct setting.

For Call Waiting Service Users

Press (CALL WAIT/FLASH) if you hear a call-waiting tone while talking.

• The first call is put on hold and you can answer the second call.
• To return to the first caller, press (CALL WAIT/FLASH) again.
• The call waiting service is not available when the parallel connected telephone is in use.
• If this function does not operate properly, the flash time may not be set correctly. Consult with your telephone company for details. See page 48 on how to adjust the flash time.

Visual Call Waiting (Call Waiting ID) Service

Visual Call Waiting (Call Waiting ID) Service allows the unit to display the second caller's information. After you hear a call-waiting tone while talking, the unit will display "- Call waiting -", and the caller's name and phone number.

```
- Call waiting -
Nancy Brown
1-000-222-3333
```

• Please contact your telephone company for details and availability in your area.

Advanced Operation

Temporary Tone Dialing

(For Rotary or Pulse Service Users)

Press (TONE) before entering access numbers which require tone dialing.

• The dialing mode changes to tone. You can enter numbers to access an answering service, electronic banking service, etc. When you hang up, the mode will return to pulse.

How to Use the PAUSE Button

(For Analog PBX Line/Long Distance Service Users)

We recommend you press (REDIAL/PAUSE) if a pause is required for dialing with a PBX or to access a long distance service.
Ex. Line access number (9) (PBX)

(9) ➡ (REDIAL/PAUSE) ➡ |Phone number |

• Pressing (REDIAL/PAUSE) once creates a 3.5 second pause.
This prevents misdialing when you redial or dial a stored number.

• Pressing (REDIAL/PAUSE) more than once increases the length of the pause between numbers.

Using an Optional Headset ➡

Plugging an optional headset into the unit provides a handsfree phone conversation.
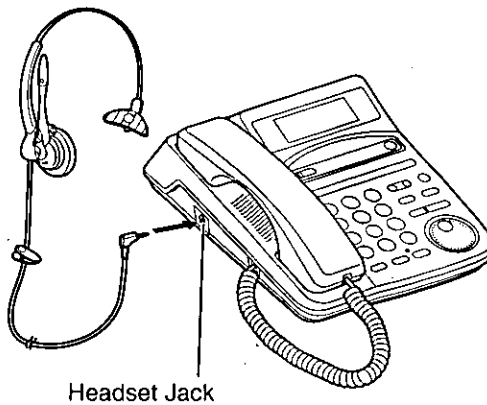Please use only a Panasonic KX-TCA80 or KX-TCA90 headset. To order, call the accessories telephone number on page 3.

Microphone

Earpiece
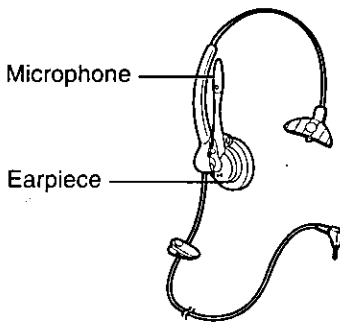
The headset illustration is a KX-TCA90.

Connecting an Optional Headset to the Unit

Connect an optional headset to the headset jack as shown below.

Headset Jack

• During a power failure, you cannot use an optional headset.

Selecting the Headset/Speakerphone

When an optional headset is connected, you can select one of the following (SP-PHONE/HEADSET) button modes.

> Each time you press (SP-PHONE/HEADSET), you can switch to the optional headset or speakerphone (**SP key: SP/Head** mode: factory preset).
> OR
> If you do not want to to use the speakerphone while the optional headset is connected, pressing (SP-PHONE/HEADSET) will make/answer a call or disconnect the line (**SP key: On/Off** mode).

If you want to change the mode, proceed as follows.
Be sure that the handset is on the cradle, the AC adaptor is connected and the SP-PHONE/HEADSET indicator light is off.

1. Press (FUNCTION/EDIT).
2. Rotate (JOG DIAL) until "Headset select" is selected.
3. Press (SEND/SET).
   - The current mode is displayed.

```
Headset select
  SP key:SP/Head
SET=Save
```

4. Rotate (JOG DIAL) until the desired mode is displayed.

```
Headset select
  SP key:On/Off
SET=Save
```

5. Press (SEND/SET) (Save key).
   - A long beep sounds and the mode is saved.
   - The display will return to the function list. To return to the stand-by mode, press (EXIT) or wait for 60 seconds.

How to Wear an Optional Headset

Place the headset on your head and adjust the microphone to a comfortable position.

▶

- Place the microphone near your mouth.

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Making/Answering Calls

If you select "SP key: SP/Head mode" (p. 52)

1 Press [SP-PHONE/HEADSET] to make or answer a call.

- The SP-PHONE/HEADSET indicator light flashes quickly.
- If you misdial when making a call, lift the handset and place it back on the cradle to hang up. Then press [SP-PHONE/HEADSET] and dial again.

2 To hang up, lift the handset and replace it.

- While using an optional headset, you can switch to the speakerphone by pressing [SP-PHONE/HEADSET]. Each time you press the button, the call will switch to the optional headset or speakerphone.

VOLUME ▽, △

[SP-PHONE/HEADSET]
and Indicator

To adjust the headset receiver volume (4 levels):
While using the headset, press **VOLUME** △ or ▽.

➡ Using an Optional Headset

If you select "SP key: On/Off mode" (p. 52)

1 Press (SP-PHONE/HEADSET) to make or answer a call.

- The SP-PHONE/HEADSET indicator light flashes quickly.
- If you misdial when making a call, press (SP-PHONE/HEADSET) twice and dial again.

2 To hang up, press (SP-PHONE/HEADSET).

During a conversation with an optional headset:
- The SP-PHONE/HEADSET indicator light flashes quickly.
- You can switch a call to the handset by lifting it off the cradle.
- If you disconnect the optional headset, you can continue the conversation with the speakerphone.

Before Requesting Help ➡

Problem	Remedy
The unit does not work.	• Check the settings (p. 10–15). • Unplug the AC adaptor to reset. Plug in, then try again.
The unit does not ring.	• The ringer volume is set to "Off". Set to "High" or "Low" (p. 17). • When the line is connected to a low voltage system such as a PBX, the unit will not ring. Set the line mode to "B" (p. 15).
You cannot dial by pressing [SP-PHONE/HEADSET], and the SP-PHONE/HEADSET indicator light flashes quickly.	• The telephone line cord is disconnected. Check the connection (p. 11).
You cannot program function items, such as the dialing mode.	• Programming is not available when the handset is off the cradle or the SP-PHONE/HEADSET indicator lights. • Do not pause for over 60 seconds while programming.
You cannot store a name and phone number in the directory.	• Do not pause for over 60 seconds while storing.
While programming or searching, the unit starts to ring and stops the program/search.	• To answer the call, lift the handset or press [SP-PHONE/HEADSET]. Start from the beginning after hanging up.
The unit does not display the caller's name and/or phone number.	• Other telephone equipment may be interfering with your phone. Disconnect them and try again. • Other electrical appliances connected to the same outlet may be interfering with the Caller ID information. Telephone line noise may be affecting the Caller ID information.

➡ Before Requesting Help

Problem	Remedy
The display goes to the stand-by mode while viewing the Caller List or directory list items.	• Do not pause for over 60 seconds while searching.
When a second call is received during a conversation, the unit does not display the new caller's name and/or phone number.	• The line mode selection is incorrect. See page 15.
(REDIAL/PAUSE) does not function properly.	• The button has a double function as either redial or pause. It will redial the last number dialed if pressed at the outset of a call (p. 24). If another number has been dialed first, it will operate as a pause button (p. 50).
You cannot have a conversation using the optional headset.	• Make sure that the optional headset is connected properly (p. 51). • Press (SP-PHONE/HEADSET) to make or answer a call. • During a power failure, you cannot use the optional headset.
If you cannot solve your problem.	• Call our customer call center at 1-800-211-PANA(7262).

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 the risk of fire or electric shock.

10. 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.

11. 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.

12. 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.

Useful Information

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.

FCC and Other Information →

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 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 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.

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.

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.

➡ FCC and Other Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

- **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 benzine, thinner, or any abrasive powder. When you leave the unit unused for a long period of 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.

For product service

• Panasonic Servicenters are listed in the servicenter directory.
• Call 1-800-211-PANA(7262) 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
_____

_____

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