PV-200A
PV-400A
PV-250X
PV-450X

User's Guide

E

CASIO

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THIS UNIT IN THE U.S.A. (not applicable to other areas).

NOTICE

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.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Proper connectors must be used for connection to host computer and/or peripherals in order to meet FCC emission limits.

Cradle .... PV-200A/PV-400A to Windows PC or SB-90

Declaration of Conformity

Model Number: PV-200A/PV-400A
Trade Name: CASIO COMPUTER CO., LTD.
Responsible party: CASIO, INC.
Address: 570 MT. PLEASANT AVENUE, DOVER, NEW JERSEY 07801
Telephone number: 973-361-5400

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.


• CASIO COMPUTER CO., LTD. assumes no responsibility for any damage or loss resulting from the use of this manual.
• CASIO COMPUTER CO., LTD. assumes no responsibility for any loss or claims by third parties which may arise through the use of the PV Unit.
• CASIO COMPUTER CO., LTD. assumes no responsibility for any damage or loss caused by deletion of data as a result of malfunction, repairs, or battery replacement. Be sure to back up all important data on other media to protect against its loss.

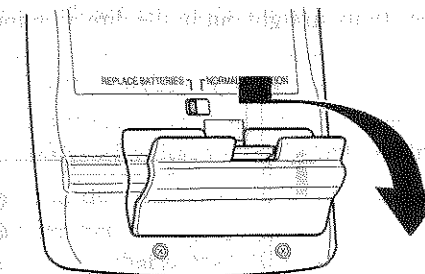Windows is a registered trademark of Microsoft Corporation.

Use the following procedure to load batteries before using it for the first time.
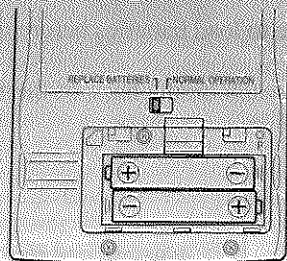
1. Slide the battery switch on the back of the PV Unit to the REPLACE BATTERIES position.

Battery switch
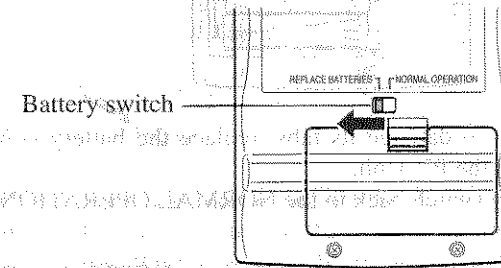
2. Pull with your finger on the battery compartment cover tab to release it, and then open the cover.
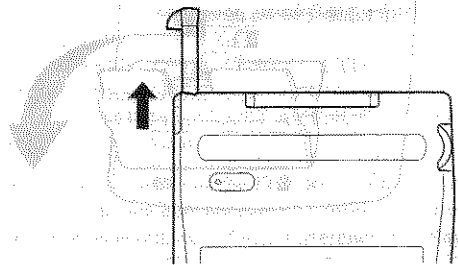
3. Load two new batteries, making sure that their positive (+) and negative (–) ends are facing in the proper directions.
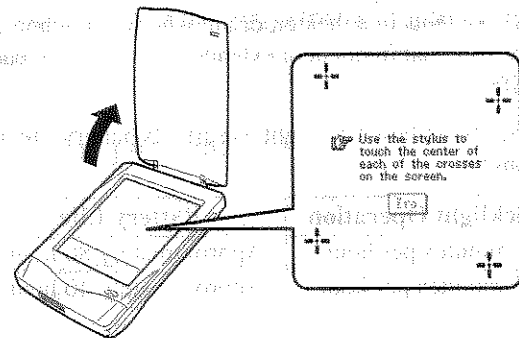
4. Taking care not to damage its tabs, replace the battery compartment cover back onto the PV Unit.
5. Slide the battery switch back to the NORMAL OPERATION position.

Important!
- Always make sure the battery switch is in the NORMAL OPERATION position at all times, except when loading batteries.
- See "To replace the batteries" on page 16 for details on replacing batteries.

6. Remove the stylus from the PV Unit.
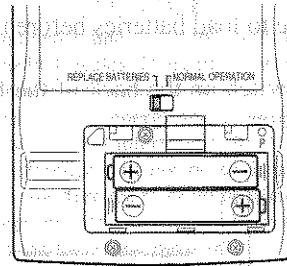- Pull the stylus straight out in the direction indicated by the arrow.

7. Open the cover.

- If the above does not appear on the display, remove the batteries and then reload them into the PV Unit, making sure you follow proper procedures. If this does not solve the problem, refer to "Troubleshooting" on page 192.

8. Tap the center of each of the four cross marks as they appear on the screen.
- The contrast adjustment screen appears next.

9. Tap ◀ or ▶ to adjust the contrast of the display, and then tap **OK**.
- If you have a PV-250X or PV-450X model, the above step causes the system language selection screen to appear. Continue from step 10.
- If you have a PV-200A or PV-400A model, continue from step 11.

10. Tap the button next to the language you want to select as the system language, and then tap **Set**.
11. In response to the message that appears (**Check your home time setting and correct it if necessary!**), tap **OK** to change to the pop up tool screen.
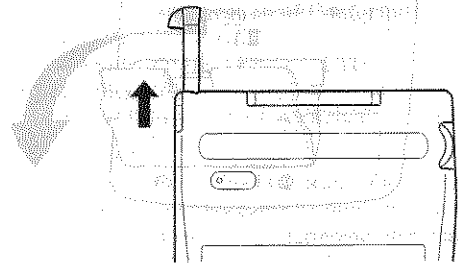12. Check the time setting and correct it if necessary (page 166).

3. Load two new batteries, making sure that their positive (+) and negative (–) ends are facing in the proper directions.
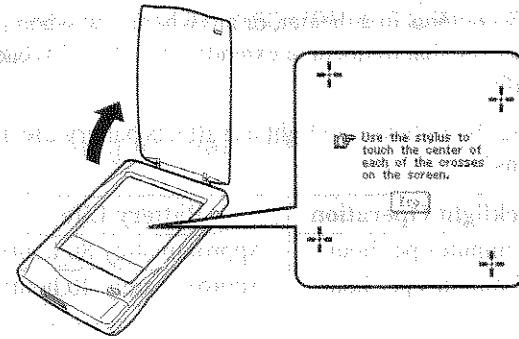

4. Taking care not to damage its tabs, replace the battery compartment cover back onto the PV Unit.
5. Slide the battery switch back to the NORMAL OPERATION position.

Important!
- Always make sure the battery switch is in the NORMAL OPERATION position at all times, except when loading batteries.
- See "To replace the batteries" on page 16 for details on replacing batteries.

6. Remove the stylus from the PV Unit.
- Pull the stylus straight out in the direction indicated by the arrow.

7. Open the cover.

- If the above does not appear on the display, remove the batteries and then reload them into the PV Unit, making sure you follow proper procedures. If this does not solve the problem, refer to "Troubleshooting" on page 192.

8. Tap the center of each of the four cross marks as they appear on the screen.
- The contrast adjustment screen appears next.

9. Tap ◀ or ▶ to adjust the contrast of the display, and then tap **OK**.
- If you have a PV-250X or PV-450X model, the above step causes the system language selection screen to appear. Continue from step 10.
- If you have a PV-200A or PV-400A model, continue from step 11.

10. Tap the button next to the language you want to select as the system language, and then tap **Set**.
11. In response to the message that appears (**Check your home time setting and correct it if necessary!**), tap **OK** to change to the pop up tool screen.
12. Check the time setting and correct it if necessary (page 166).

About the EL backlight

- The PV Unit is equipped with an EL backlight that allows easy viewing of display contents in a theater, or anywhere else where lighting is dim.
- Note, however, that frequent or extended use of the EL backlight shortens battery life.

The following shows how backlight use affects battery life under controlled test conditions*.

Backlight Operation	Battery Life
3 minutes per hour	Approximately 80 hours
15 minutes per hour	Approximately 40 hours

* Test Conditions

- "Battery Life" is the number of hours before battery failure when the unit is left on (5 minutes of a processing operation and 55 minutes of continuous display only (no processing operation) per hour in the Contacts Mode, plus the backlight operation described below). The above values assume ambient temperature of 20°C, starting with a fresh set of new batteries.
- "Backlight Operation" is the number of minutes the backlight is turned on per hour during the display only (no processing operation) period.
- Be sure to use alkaline batteries. Manganese batteries provide very short battery life.

Contents

Getting Acquainted

Read this first!

- *Be sure to read this part of the User's Guide before doing anything else!* It includes important information that you need to know in order to use the PV-200A/PV-250X/PV-400A/PV-450X (hereinafter referred to as the "PV Unit") correctly.
- You can find more detailed information about other PV Unit operations in "Chapter 12 – General Operations" on page 147 and "Chapter 14 – Technical Reference" on page 175.

Important!
Please keep this User's Guide and all information handy for future reference.

Make backup copies of important data!

Your PV Unit employs flash memory, which makes it possible to store large volumes of data and to recall data quickly and easily. Data is retained when power is turned off and even when batteries go dead, but it can be corrupted or lost entirely due to operational mistakes or malfunction. Data contents can also be corrupted or lost due to strong electrostatic charge, strong impact, or extremes in temperature and humidity. All of this means that you should always keep back-up copies of important data by transferring it to a personal computer or by writing it down somewhere.

Important Precautions

Note the following important precautions whenever using your PV Unit.
* Never expose the PV Unit to fire.
* Avoid temperature extremes. Do not locate the PV Unit in direct sunlight, near a window, near a heater, etc.
* In very low temperatures display response may slow down or fail entirely. This condition is temporary and operation should resume under normal temperatures.
* Avoid areas subject to excessive moisture, dirt, and dust.
* Avoid dropping the PV Unit and otherwise subjecting it to strong impact.
* Never bend or twist the PV Unit.
* Never try to take the PV Unit apart.
* Do not use a pen, pencil, or other sharp object to touch or press the display.
* To clean the exterior of the PV Unit, wipe it with a soft cloth dampened in a weak solution of a mild neutral detergent and water. Be sure to wring out any excess moisture from the cloth before wiping off the PV Unit. Never use benzene, thinner, or any other volatile agent to clean the unit. Doing so can remove the figures printed on the case or otherwise damage the case finish.
* The contents of this manual are subject to change without notice.
* CASIO COMPUTER CO., LTD. assumes no responsibility for any loss or claims by third parties that may arise from the use of this product.

Data Errors

The PV Unit performs a self-check routine whenever you turn it on. The message shown below appears if the PV Unit detects a problem with data stored in its memory.
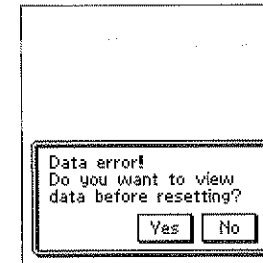
Once data is lost due to a data error it cannot be recovered. Data errors are generally caused by one of the following problems.

* Interruption of battery power
* Severe electrostatic charge, strong impact, changes in temperature, or changes in humidity
* Hardware problems

Once the data error message appears, the PV Unit will not accept any input or editing of data. In order to return memory to normal (and permit further data editing and input), you have to perform the RESET operation to clear all data. Before doing so, you may want to recall important data and write it down (if you don't yet have a copy). You can then re-input the data after clearing PV Unit memory.

Continued problems after performing the RESET operation can indicate a serious hardware problem. Consult with your nearest CASIO dealer if problems persist.

To reset after viewing data

1. After the **Data error** message appears, tap **Yes**.
2. In response to the message that appears (**Data error! Consult your User's Guide for correct procedure.**), tap **OK**.
* This displays the pop up tool screen.

3. Now you can enter other modes to recall data and make handwritten copies if you want.
4. After recalling the data you want, perform the RESET operation under "To reset the PV Unit" on page 182.

■ General Guide

Action control

Stylus

Touch screen

Cradle contacts

RESET button

Battery switch

P button

Battery compartment cover
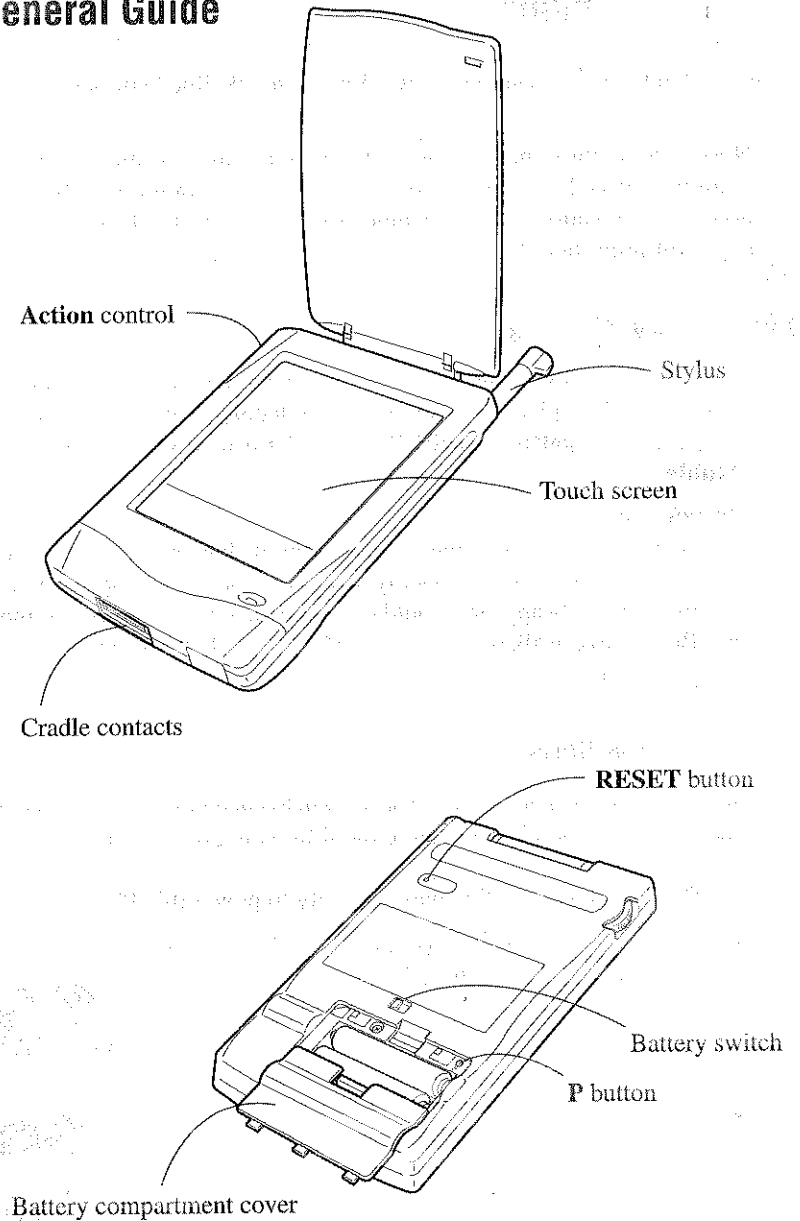
To replace the batteries

Important!
* Always make sure the battery switch is in the NORMAL OPERATION position at all times, except when replacing batteries.

1. Turn off PV Unit power.
2. Slide the battery switch on the back of the PV Unit to the REPLACE BATTERIES position.

Battery switch
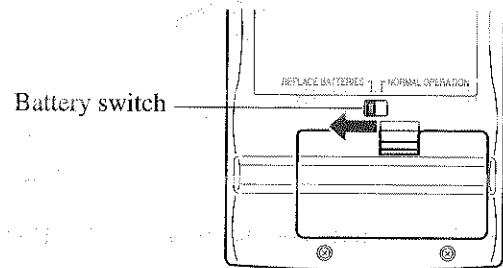
3. Pull with your finger on the battery compartment cover tab to release it, and then open the cover.
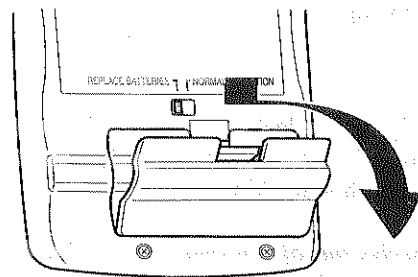
4. Remove both of the old batteries.
5. Load two new batteries, making sure that their positive (+) and negative (−) ends are facing in the proper directions.

6. Taking care not to damage its tabs, replace the battery compartment cover back onto the PV Unit.
7. Slide the battery switch back to the NORMAL OPERATION position.

8. Open the cover.

- If the above does not appear on the display, remove the batteries and then reload them into the PV Unit, making sure you follow proper procedures. If this does not solve the problem, refer to "Troubleshooting" on page 192.

9. Tap the center of each of the four cross marks as they appear on the screen.
- The contrast adjustment screen appears next.

10. Tap ◀ or ▶ to adjust the contrast of the display, and then tap **OK**.
- If you have a PV-250X or PV-450X model, the above step causes the system language selection screen to appear. Continue from step 11.
- If you have a PV-200A or PV-400A model, continue from step 12.

11. Tap the button next to the language you want to select as the system language, and then tap **Set**.

12. In response to the message that appears (**Check your home time setting and correct it if necessary!**), tap **OK** to change to the pop up tool screen.

13. Check the time setting and correct it if necessary (page 166).

To turn power **on and off**

1. Touch anywhere on the PV Unit screen or press the **Action** control to turn on power.
2. To turn power off, tap **Off** with the stylus.

Auto Power Off

The Auto Power Off function automatically turns off power whenever you do not perform any operation for a specified period. You can specify 1 minute, 3 minutes, or 6 minutes before Auto Power Off is triggered (page 166).
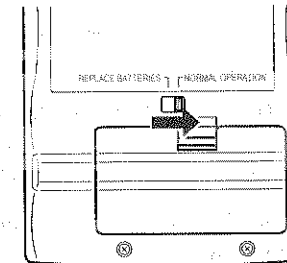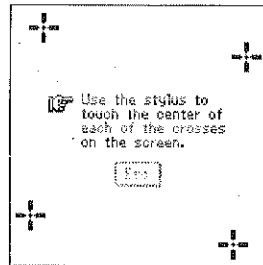Use the procedure described under "To turn power on and off" above to turn power back on.

Using the Backlight

Tapping the **Light** icon beneath the PV Unit screen illuminates the display screen for about 15 seconds for easy viewing, even in the dark.

- Tapping the **Light** icon while the backlight is on turns it off.
- The backlight may fail to turn on when battery power is low and during data communication.

Action Control and Stylus

Many of the PV Unit's operations can be performed using either a stylus or the **Action** control on the left side of the unit. The following describes the general operations that can be performed with each.

Stylus

The stylus takes the place of a computer mouse. You can perform all PV Unit operations with the stylus. In this manual, all data input operations are described using stylus operations.

You can perform the following basic operations with the stylus.

• Tap
Tap the tip of the stylus on the display to press a button, select an item, select a data input field, etc.

• Double-tap
Tap the display twice in relatively quick succession.

• Drag
Touch the tip of the stylus to the screen, and drag it across the screen to select a range of text, draw a line, etc.

Action Control

The **Action** control makes it possible to perform certain PV Unit operations with one hand. In this manual, many data recall operations are described using **Action** control operations.

You can perform the following basic operations with the **Action** control.

• Rotate
Rotating the **Action** control up and down causes the selection or data on the screen to scroll up and down.

• Press
Pressing the **Action** control is much like a "click" on a computer mouse button. Pressing the **Action** control executes the command that is highlighted on the display, executes the function assigned to the button whose name is enclosed by a dotted line (such as ⌐Set⌐), switches between a list and a data screen, etc.

■ Using the Icon Menu

The PV Unit has an icon menu beneath its display screen. You can tap these icons to perform various functions no matter what mode you are using.
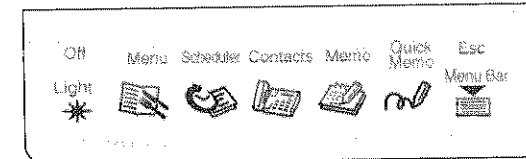
Icon	Description
Off	Turns off PV Unit power.
Menu	Displays the Mode Menu.
Scheduler	Enters the Scheduler Mode.
Contacts	Enters the Contacts Mode.
Memo	Enters the Memo Mode.
Quick-Memo	Enters the Quick-Memo Mode.
Esc	Exits the current operation.
Menu Bar	Displays the menu bar.
Light	Turns on the backlight.

Modes

With most PV Unit operations, you must first enter a mode before you can input or view data. You can use any of the following methods to enter a mode.

- Tap an icon in the icon menu beneath the display screen
- Tap an on-screen icon in the Mode Menu
- Select a mode on the Mode List with the stylus or **Action** control

Note
- All the procedures in this User's Guide are performed using the icon menu whenever possible.

To enter a mode using the icon menu

Use the stylus to tap on the icon for the mode you want to enter.

To enter a mode using the on-screen icon menu

1. On the icon menu, use the stylus to tap the **Menu** icon to display the on-screen icon menu.
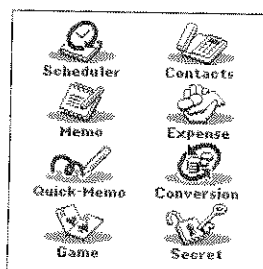
2. Tap the icon of the mode you want to enter.

To enter a mode using the Mode List

1. Press the **Action** control to turn on PV Unit power and display the Mode List.
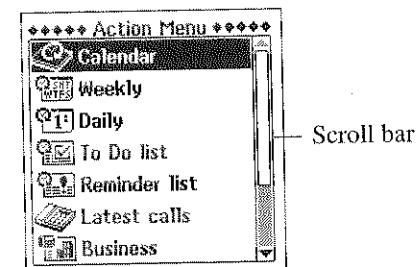
Scroll bar

2. If the mode you want is not on the screen, scroll the menu up and down.
- See "Scroll Bars" on page 148 for details on using the scroll bar.

3. Enter the mode you want.
- You can enter a mode using either of the following methods.
  - Tap on the mode name in the Mode List.
  - Use the **Action** control to highlight the name of the mode and then press the **Action** control.

Scheduler

The Scheduler Mode provides you with a selection of powerful schedule management tools that help to keep you on time all the time. In addition to Schedule, Reminder, and To Do tools, you can select from among a variety of different screens to view your appointments on a monthly, weekly, or daily basis. You can even set alarms to help make sure you never miss an important appointment or event.

Entering the Scheduler Mode

On the icon menu beneath the display screen, tap the **Scheduler** icon. This enters the Scheduler Mode and displays the 1-month Calendar screen.
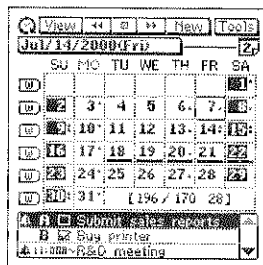
Now you can maneuver around the Scheduler Mode to input and recall data.

Inputting New Scheduler Data

This section describes how to input Schedule, To Do, and Reminder data. Note that a Schedule item can be input as a "single-date" item (an appointment that starts and ends on the same day) or a "multiple-date" item (an appointment that spans more than one day). You can input a new multiple-date item with the **New** button or with the calendar screen.

To input a single-date Schedule item

1. While any Scheduler Mode data screen is on the display, tap **New**.
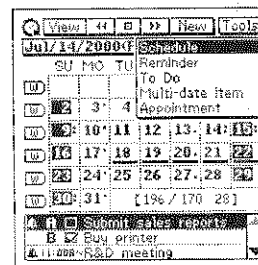
2. Tap **Schedule**.
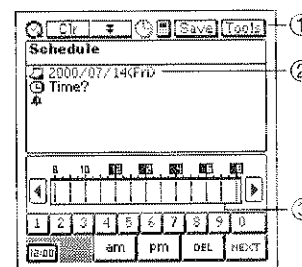
① Data input tool bar
② Date
③ Time bar

- The new Schedule item is automatically assigned the date that was selected (flashing) on the screen when you tapped New. You can leave this date as it is or change it. To change the date, tap it and then use the date keyboard that appears to make any changes you want. Tap **NEXT** after you are finished.

3. Input the start time and the end time if you want, and then tap **NEXT**.
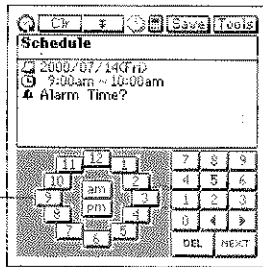
Time keyboard

4. Input a Schedule alarm time, if you want.
5. Tap **NEXT** to advance to the description text input screen.
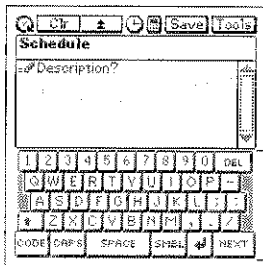
Text keyboard

6. Input text that describes the item.
7. After the item is the way you want, tap **Save** to store it.
- In addition to a date, you *must* input description text or a start time. The PV Unit will refuse to store the item if it does not contain a date plus description text or a start time.

To input a multiple-date Schedule item with the New button

1. While any Scheduler Mode data screen is on the display, tap **New**.
2. Tap **Multi-date item**.

Data input tool bar

Date keyboard

- The new Schedule item is automatically assigned the date that was selected (flashing) on the screen when you tapped **New** for both the start date and end date.
- If you drag the stylus across a range of dates in the 1-Month Calendar screen (page 40), the above screen opens up with the range of dates specified.

3. Tap the date you want to change and then input the year, month, and day.
4. Tap **NEXT** to advance to the description text input screen.
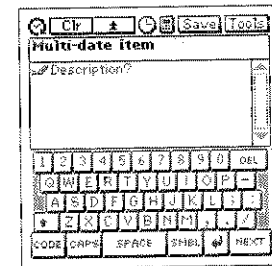
Text keyboard

5. Input text that describes the item.

6. After the item is the way you want it, tap **Save** to store it.
* Note that you *must* input a start date, end date, and description text. The PV Unit will refuse to store the item if it does not contain a start date, end date, and description text.

To input a To Do item

1. While any Scheduler Mode data screen is on the display, tap **New**.
2. Tap **To Do**.
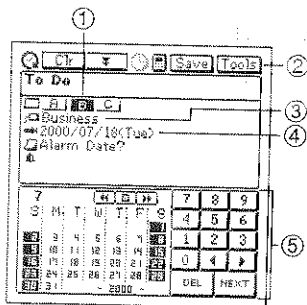
① Priority
② Data input tool bar
③ Category
④ Due date
⑤ Date keyboard

3. Change the priority if you want.
* A new To Do item is automatically assigned a priority of **B**. Tap the priority you want to change to. You can set the priority in this screen or the following screens where it appears.

4. If you want to change the category, tap on current category setting.
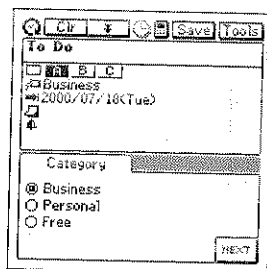
5. Tap the category you want to change to and then tap **NEXT**.
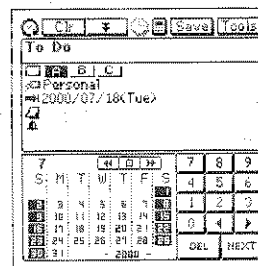
6. Change the due date if you want, and then tap **NEXT**.
* The initial due date setting is the date that was selected (flashing) on the screen when you tapped **New**. You can leave the initial date as it is or change it.
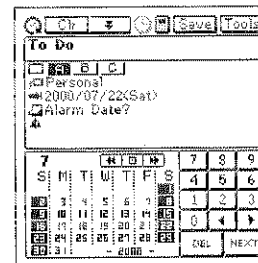
7. Input an alarm date if you want, and then tap **NEXT**.
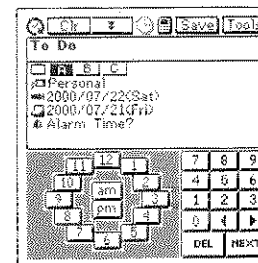
8. Input an alarm time, if you want.
* If you input an alarm time, be sure to also input an alarm date. You will not be able to store the data item if you input an alarm time without an alarm date.

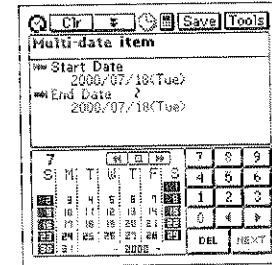9. Tap **NEXT** to advance to the description text input screen.
10. Input text that describes the item.
11. After the item is the way you want it, tap **Save** to store it.
* In addition to a due date, you *must* input description text. The PV Unit will refuse to store the item if does not contain a due date and description text.

To input a Reminder Item

1. While any Scheduler Mode data screen is on the display, tap **New**.
2. Tap **Reminder**.
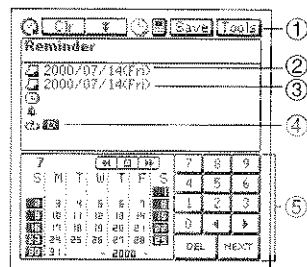
① Data input tool bar
② Start date
③ End date
④ Reminder type
⑤ Date keyboard

* The new Reminder item is automatically assigned the date that was selected (flashing) on the screen when you tapped **New** as the start date and end date. You can leave this date as it is or change it. To change the date, tap it and then use the date keyboard that appears to make any changes you want. Tap **NEXT** after you are finished.

3. Input the start time and end time if you want, and then tap **NEXT**.
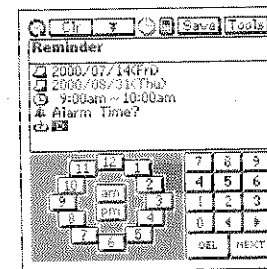
4. Input an alarm time, if you want.
5. Tap **NEXT** to advance to the Reminder type screen.
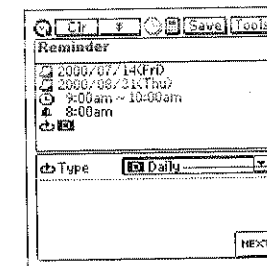
Reminder type

6. Tap the ▼ arrow to the right of the Reminder type to display a list of available types, and tap the one you want to select.
7. Input the required data for the Reminder type you select, and then tap **NEXT**.
* See "Reminder Types and Settings" on page 34 for details about Reminder types and their settings.
* If you input data incorrectly (with a Reminder date that does not fall between the start date and end date, for example), the PV Unit will refuse to store the data item when you tap **Save** below.

8. Input text that describes the item.
9. After the item is the way you want it, tap **Save** to store it.
- In addition to a start date and end date, you must input description text or a start time. The PV Unit will refuse to store the item if it does not contain a start date and end date plus description text or a start time.

Reminder Types and Settings

The following describes each of the Reminder types available and provides details about the settings required by each.

Daily ▣
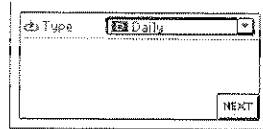
Repeated every day. No additional settings are required.

Weekly ▥
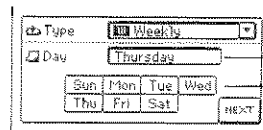
Selected day of the week
Buttons

Repeated the same day of the week, each week. Specify the day of the week by tapping its button.

Monthly 1 ▦
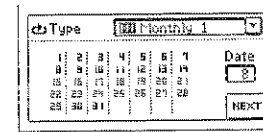
Repeated the same day of the month, every month. Specify the day of the month by tapping on it in the calendar.

Monthly 2 ▦
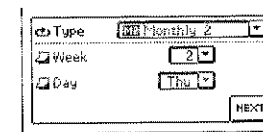
Repeated the same day of the week of a specific week each month. Tap the ▼ arrows next to the **Week** and **Day** boxes to display menus of options, and tap the ones you want to select.

Yearly 1 ▧
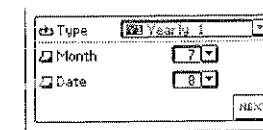
Repeated the same date every year. Tap the ▼ arrows next to the **Month** and **Date** boxes to display menus of options, and tap the ones you want to select.

Yearly 2 ▣
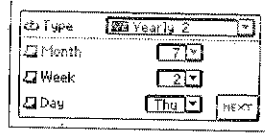
Repeated the same day of the week of a specific week of a specific month each year. Tap the ▼ arrows next to the **Month**, **Week**, and **Day** boxes to display menus of options, and tap the ones you want to select.

Important!
* Be sure to correctly specify all of the settings required for the Reminder type you specify.

■ Importing Contacts Data Into a Schedule Item

The following procedure lets you import certain Contacts data entries (fields) into the **Description** of a Schedule item, which provides you with handy reference information about the person you are planning to meet. The entries (fields) that are imported depend on whether you are importing Business or Personal data.

Personal Data	Business Data
Name	Name
Phone (H)	Company
Fax (H)	Phone (B)
Mobile	Fax (B)
E-mail	E-mail
Phone (B)	Phone (H)
Fax (B)	Fax (H)
	Mobile

* Entries (fields) that do not contain any data are skipped (not imported).

To import Contacts data into a Schedule item

1. While any Scheduler Mode data screen is on the display, tap **New – Appointment**.
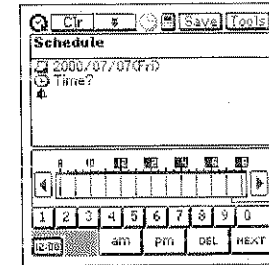
2. Input the date, time, and alarm time.
* See "To input a single-date Schedule item" on page 27 for details.
* Tapping the **NEXT** button after inputting the above data displays the following screen.
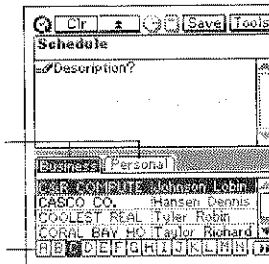
3. Tap on the tab to access either Business or Personal Contacts data, and
    then use the index to locate the name whose data you want to import.
    Highlight the name whose data you want to import by tapping on it, and
    then tap the highlighted name again.

4. Input any more text you want for the description, and then tap **Save** to
    store the item.
*   The applicable entries (fields) contained in the Contacts item you specify
    are imported into the Schedule item. See page 36 for details on which
    entries are imported.
*   You can move the cursor around the imported data and make any changes
    in it that you want.
*   Note that Contacts data can be imported as you are creating a new
    Schedule item only. You cannot use this procedure to import into an
    existing Schedule item.

▧ Viewing Scheduler Data

The Scheduler Mode provides a variety of screens that you can use to view
Schedule, To Do, and Reminder data. This section describes the various data
recall screens available in the Scheduler Mode, and provides information about
how to navigate between them.

Screen Organization

The screens used for recall in the Scheduler Mode are arranged as shown in
the following table.

Type	Screen Name	Description
Calendar	• 1-Month Calendar	• Calendar of a single month
	• 2-Month Calendar	• Calendars for two months
	• 3-Month Calendar	• Calendar for 17 weeks
Periodic Schedule	• Weekly Scheduler	• Overview of Scheduler data for a specific week
	• Daily Scheduler	• Overview of Scheduler data for a specific day
Schedule	• Schedule Data	• Details of an individual Schedule item
Reminder	• Reminder Data	• Details of an individual Reminder item
	• Reminder List	• List of all Reminder items
To Do	• To Do Data	• Details of an individual To Do item
	• To Do List	• List of all To Do items

Calendar Screens

Use the calendar screens to quickly locate a specific date and view its
Scheduler data.

1-Month Calendar

The 1-Month Calendar for the month that contains the today's date (as kept by the PV Unit's clock) appears first whenever you enter the Scheduler Mode. Use the 1-Month Calendar screen to select a date for recall of its data.
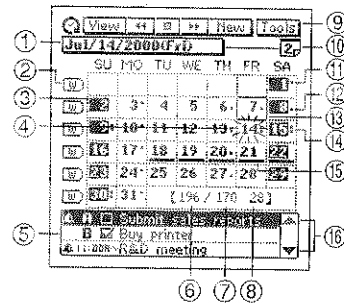
① Date jump button (page 53)
② Weekly Scheduler buttons
③ Highlighted date
④ Selected date (flashing)
⑤ Data display area
⑥ Days passed in the year
⑦ Days remaining in the year
⑧ Week number for the year
⑨ Data display tool bar

⑩ 2-Month Calendar button
⑪ Indicates AM appointment.
⑫ Indicates PM appointment.
⑬ Today's date (as kept by the PV Unit's clock)
⑭ Indicates AM and PM appointment or appointment without a time.
⑮ Multiple-date item
⑯ Scroll buttons

To view a date's Daily Scheduler screen

1. Tap a date to select it. The selected date flashes in the calendar.
2. Tap the flashing date to change to its Daily Scheduler screen.
3. In the Daily Scheduler screen, tap Esc to return to the 1-Month Calendar screen.

To view the 2-Month Calendar screen

1. Tap the 2-Month Calendar button to switch to the 2-Month Calendar screen.
2. In the 2-Month Calendar screen, tap Esc to return to the 1-Month Calendar screen.

To view a Weekly Scheduler screen

1. Tap the ⓦ button to the left of the week whose Weekly Scheduler screen you want to view.
2. In the Weekly Scheduler screen, tap Esc to return to the 1-Month Calendar screen.

Using the data display area

- This area shows an outline of data input for up to three Scheduler items input for the currently selected (flashing) date. It shows Schedule, To Do and Reminder data.
- Use the scroll buttons to scroll the data up and down.
- Tapping the highlighted item displays its data screen.

2-Month Calendar
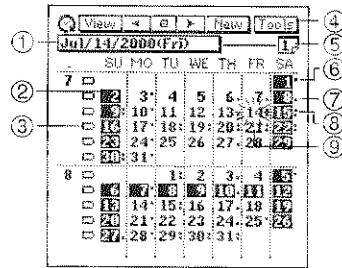
① Date jump button (page 53)
② Highlighted date
③ Weekly Scheduler buttons
④ Data display tool bar
⑤ 1-Month Calendar button
⑥ Indicates AM appointment.

⑦ Indicates PM appointment.
⑧ Indicates AM and PM
   appointment, appointment without
   a time or multiple-date item.
⑨ Selected date (flashing)

To view a date's Daily Scheduler screen

1. Tap a date to select it. The selected date flashes in the calendar.
2. Tap the flashing date to change to its Daily Scheduler screen.

To view the 1-Month Calendar screen

Tap the 1-Month Calendar button to switch to the 1-Month Calendar screen.

To view a Weekly Scheduler screen

Tap the ☐ button to the left of the week whose Weekly Scheduler screen you want to view.

3-Month Calendar
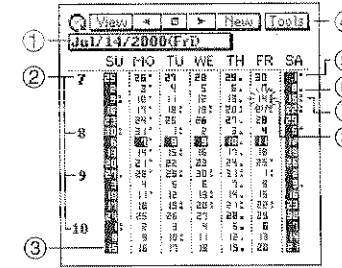
① Date jump button (page 53)
② Month numbers
③ Highlighted date
④ Data display tool bar
⑤ Indicates AM appointment.

⑥ Indicates PM appointment.
⑦ Indicates AM and PM
   appointment, appointment without
   a time or multiple-date item.
⑧ Selected date (flashing)

To view a date's Daily Scheduler screen

1. Tap a date to select it. The selected date flashes in the calendar.
2. Tap the flashing date to change to its Daily Scheduler screen.

To view a 1-Month Calendar screen

Tap the month number of a month to view its 1-Month Calendar screen.

Periodic Schedule Screens

The periodic schedule screens give you a quick overview of your scheduled appointments. You can view all your appointments for a specific day or week.

Weekly Scheduler Screen

The Weekly Scheduler screen shows you your schedule for an entire week, including Schedule, To Do, and Reminder items.
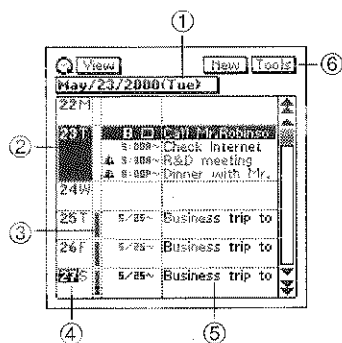
① Date jump button (page 53)
② Highlighted date
③ Multiple-date item
④ Date column
⑤ Description text
⑥ Data display tool bar

To view a date's Daily Scheduler screen

1. Tap a date in the date column to select (highlight) it.
2. Tap the selected date to display its Daily Scheduler screen.

To view an item's data screen

1. Tap an item to select (highlight) it.
2. Tap the selected item to display its data screen.

Daily Scheduler Screen

The Daily Scheduler screen gives you an overview of Scheduler (Schedule, Reminder, To Do) items for a particular date, along with a list of all currently unchecked To Do items.
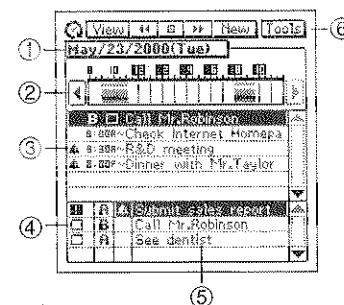
① Date jump button
② Time bar
③ Scheduler area
④ To Do area
⑤ Description text
⑥ Data display tool bar

To shift the time bar

Tap the ◀ and ▶ scroll buttons to shift the time bar left and right.
The shaded portion in the time bar indicates a period during which an item is scheduled. Overlapping time bars (schedules) are black.

Scheduler Area

• This area shows the current date's six Scheduler (Schedule, Reminder, To Do) items.
• Changing to a different date causes the data in the Scheduler area to be replaced with the Scheduler data of the new date.
• You cannot check or change the priority of a To Do data item in the Scheduler area.

To Do Area

- This area shows the four unchecked To Do items.
- You cannot use this screen to change the checked/unchecked status.
- The data in this area remains the same, even if you change to a different date.
- You can check a To Do data item in the To Do area by tapping its check box. As soon as you do, the data item disappears from the To Do area (though it remains stored in the To Do Mode).
- You can change the priority of a To Do data item in the To Do area by taping on its current priority setting to cycle it in the following sequence: A → B → C → A, etc.

To view an item's data screen

1. Tap an item to select (highlight) it.
2. Tap the selected item to display its data screen.

Schedule Data Screen

The Schedule data screen shows the details of a selected Schedule item.

Schedule Data Screen (Single-Date)

① Start time (and end time)
② Data display tool bar
③ Date
④ Alarm time
⑤ Description
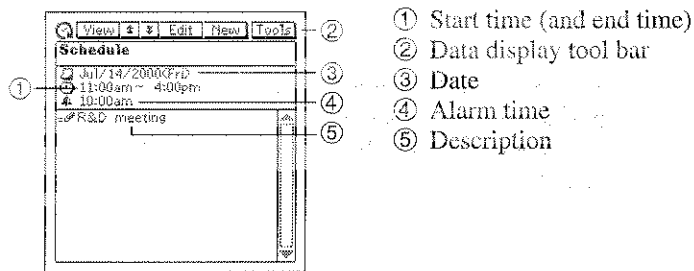
- Tapping **Esc** goes to the Daily Scheduler screen.

Schedule Data Screen (Multiple-Date)

① Data display tool bar
② Start date
③ End date
④ Description
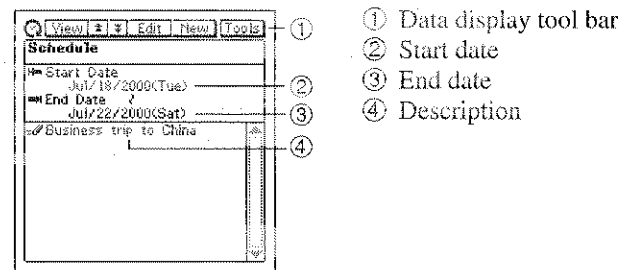
- Tapping **Esc** goes to the Daily Scheduler screen.

Reminder Screens

The two Reminder screens show currently stored Reminder items. The Reminder data screen shows full details of each item, while the Reminder list is a collection of one-line summaries of Reminder data items that can be used for quick location of a specific item.

Reminder List Screen

① Reminder dates
② Reminder types
③ Descriptions
④ Data display tool bar
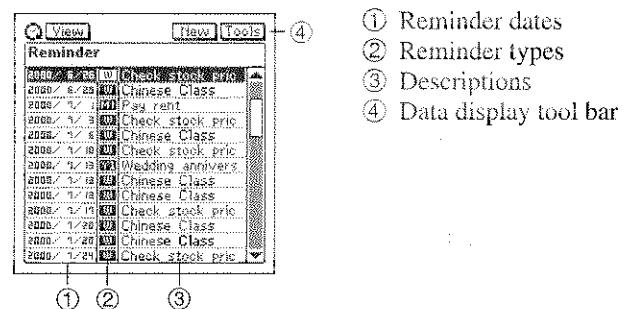
To view a Reminder data screen

1. In the Reminder list screen, tap a Reminder item to select (highlight) it.
2. Tap the selected item again to display its data screen.

Reminder Data Screen
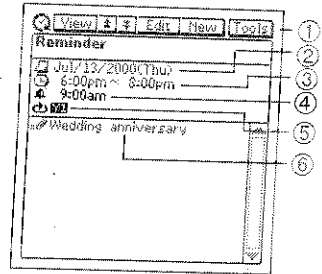
① Data display tool bar
② Reminder date
③ Start time (and end time)
④ Alarm time
⑤ Reminder type
⑥ Description

- Tapping Esc returns to the Reminder list screen.

To Do Screens

The two To Do screens show currently stored To Do items. The To Do data screen shows full details of each item, while the To Do list is a collection of one-line summaries of To Do items that can be used for quick location of a specific item.

To Do List Screen
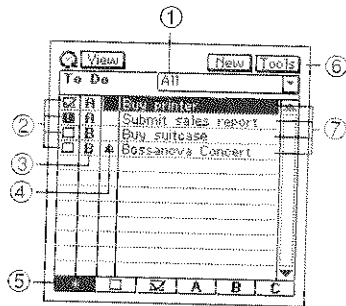
① Display category
② Check boxes
③ Priorities
④ Alarm indicator
⑤ Display item buttons
⑥ Data display tool bar
⑦ Descriptions

To specify the display category

1. Tap the display category box to open a menu of categories.
2. Tap the category whose data you want to display.

To specify the display item type

Tap the display item button that corresponds to the type of items you want to display.

☐	Unchecked items only
☑	Checked items only
A	Priority A items only
B	Priority B items only
C	Priority C items only
∗	All items

To check and uncheck items

Tap the check box of an item to toggle it between being checked and unchecked.

- The check boxes of all unchecked data items whose due dates are passed are replaced by exclamation points (⊞).

To change the priority of an item

Tap the current priority of an item to cycle it in the following sequence: A → B → C → A, etc.

To view a To Do data screen

1. In the To Do list screen, tap a To Do item to select (highlight) it.
2. Tap the selected item again to display its data screen.

To Do Data Screen
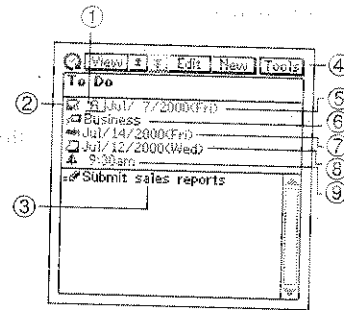
① Priority
② Check box
③ Description
④ Data display tool bar
⑤ Date checked
⑥ Category
⑦ Due date
⑧ Alarm date
⑨ Alarm time

To check and uncheck the item

Tap the check box to toggle it between being checked and unchecked. The date checked is added automatically.

• The check boxes of all unchecked data items whose due dates are passed are replaced by exclamation points (■).

To change the priority

Tap the current priority to cycle it in the following sequence:
A → B → C → A, etc.

## ■ Date Highlighting

You can highlight dates on the 1-Month or 2-Month Calendar screen to specify them as holidays or other special events.

To highlight dates

1. While the 1-Month Calendar or 2-Month Calendar is on the display, tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Highlight**.
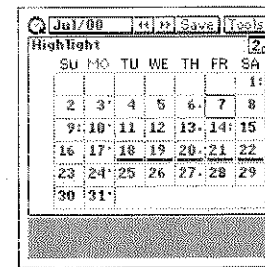
• You can switch between the 1-Month Calendar and 2-Month Calendar at any time during the following steps.

2. Tap the individual dates you want to highlight, or drag the stylus across the range of dates you want to highlight.
   • If you make a mistake and highlight the wrong date, simply tap or drag across it to unhighlight.

3. If you want to highlight dates in other months, tap the tool bar's ◀◀ (◀) and ▶▶ (▶) buttons to change months, and repeat step 2.
   • You can highlight dates only within the year that contains the month where the date cursor was located when you started this procedure.

4. After all date highlighting is the way you want it, tap **Save** to store it.

To unhighlight dates

1. While the 1-Month Calendar or 2-Month Calendar is on the display, tap the Menu Bar icon to display the menu bar, and then tap Option – **Unhighlight**.
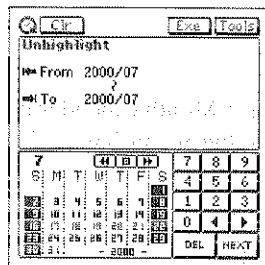
2. Specify the start month and end month of the period whose dates you want to unhighlight.
* Note that you can unhighlight dates for a range of months only. You cannot unhighlight individual dates.

3. After the dates are the way you want them, tap **Exe**.
4. In response to the message that appears, tap **Yes** to unhighlight all dates in the range you specified or **No** to close the dialog box without doing anythinng.

■ Jumping to a Specific Date

You can use the following procedure while the Calendar, Daily Scheduler, or Weekly Scheduler screen is on the display to select a date and display its data.

To jump to a specific date

1. While the 1-Month Calendar, 2-Month Calendar, 3-Month Calendar, Weekly Scheduler screen, or Daily Scheduler screen is on the display, tap the date jump button.

– Date keyboard
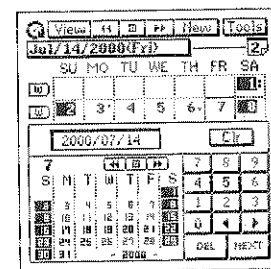
2. Input the date to which you want to jump, and then tap **NEXT**.
* The screen that appears next depends on what type of screen you started from in step 1 above.

Starting from:	Jumps to:
Calendar Screen	Month that contains the specified date, which is flashing in the calendar
Daily Scheduler Screen	Daily Scheduler screen for the specified date
Weekly Scheduler Screen	Weekly Scheduler Screen for the week that contains the specified date, which is highlighted on the screen

Renaming To Do Categories

Use the following procedure to change the name of a To Do category.

To change the name of a category

1. In the To Do Mode, display the list screen or a data screen.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Name edit**.
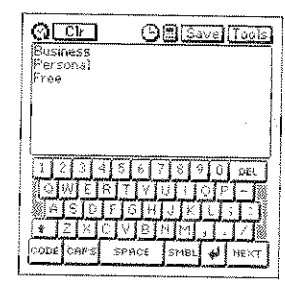
3. Type in the names you want to assign to the categories, and then tap **Save** to save them.
*   You can input up to 14 characters for each category name.
*   Category names revert to their preset defaults whenever the PV Unit is reset.

The Contacts Mode is the easy way to organize, store, and manage all your business and personal contact data. Fields are provided for name, address, phone number, fax number, e-mail address, and more. Business data is grouped under company name, so you have instant at-a-glance access to information on everyone who works for the same company.

Entering the Contacts Mode

You can use any one of the three following methods to enter the Contacts Mode. The method you use determines what appears on the screen first.

To enter the Contacts Mode from the icon menu

Tap the **Contacts** icon below the PV Unit screen to enter the Contacts Mode. This displays the list screen of the data items contained in the category that was on the display when you last exited the Contacts Mode.

To enter the Contacts Mode from the Mode List

1. Press the **Action** control to turn on PV Unit power.
2. Rotate **Action** control to highlight the Contacts Mode list you want.
   • You can select **Latest calls**, **Business**, or **Personal**.
3. Press the **Action** control to display the list you selected.

To enter the Contacts Mode from the Mode Menu using the stylus

1. On the icon menu beneath the PV Unit display screen, tap **Menu** to display the on-screen icon menu.
2. Tap **Contacts**.
   • This displays the list screen of the data items contained in the category that was on the display when you last exited the Contacts Mode.

Changing the Display Category

1. Display a Contacts list screen.
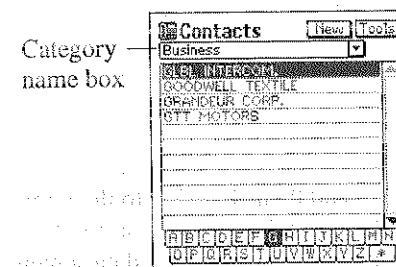
• Note that you can change the display category only from a Contacts list screen.

2. Tap the ▼ arrow to the right of the category name box to open a list of categories, and tap the one you want to select.

Category Name	List Contents
Latest calls	Last 16 Contacts data items whose data screens you opened. See "Latest Calls List" below for details.
All	All Contacts data, regardless of category
Business	Company names of Contacts data stored under the Business category. Selecting a company name displays a list of employees and their business phone numbers.
Personal	Personal names and home phone numbers of Contacts data stored under the Personal category
Untitled 1 - 5	Free 1 and Free 2 fields of Contacts data stored under the applicable Untitled category

- The above describes the default list screen contents. You can change the contents of the Personal and Untitled category lists, and of the employee list that appears when you select a company name from the Business category list. See "Changing Contacts List Screen Contents" on page 63 for details.

Latest Calls List

Selecting an item in the Contacts list screen and then changing to the item's data screen causes that item to be added to the Latest calls list. An item is not added to the Latest calls list if you scroll to its data screen from another data screen.

Note
- The contents of the Latest calls list are cleared whenever you perform a data synchronization operation with your computer, when you delete all the data items in a category, or when you delete all data items.

Resizing Contacts List Screen Columns

You can use the stylus to drag the separator line on a list screen left and right to change the relative sizes of the columns.
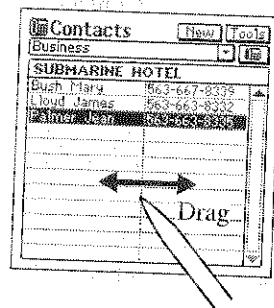
Inputting New Contacts Data

The following procedure shows how to input new Business category data. Data input procedures for Personal and Untitled category data are identical.

To input new Contacts Business data

1. While a Contacts Mode list or data screen is on the display, tap the **New** button.
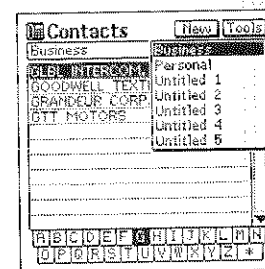
2. Tap the category where you want to input the data.
   - In this example, tap **Business**.
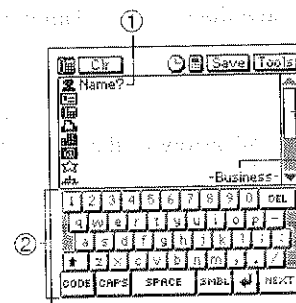
① Prompt
② Text keyboard
③ Data input toolbar
④ Scroll bar
⑤ Category name

3. Input the name of the person. Business and Personal data is sorted automatically by name, so it is a good idea to input the last name first.

• Note that you *must* input Name data for a Personal item, Name and Company data for a Business item, and data for the first entry (field) of an Untitled item. The PV Unit will refuse to store the item when you tap **Save** below if it does not contain the minimum required data.

4. Tap the other fields on the screen and input the data you want.
5. After you finish inputting all the data that you want, tap **Save** to store it.
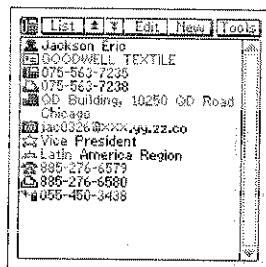
Viewing Contacts Data

Use one of the following procedures to view the Contacts data you want.

To view Business data

1. In a Contacts list screen, tap the ▼ arrow to the right of the category name box to open a list of categories.

2. Tap **Business** to change to the Business category.
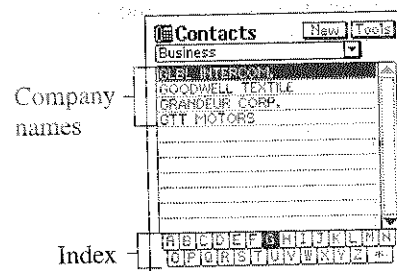
Company names

Index

3. Rotate the **Action** control to move the highlighting in the index at the bottom of the screen to the letter that starts the name of the company whose data you want to view.

4. Double-tap the name of a company to display a list screen (name and business phone number) of all entries whose company entry matches the company you selected.
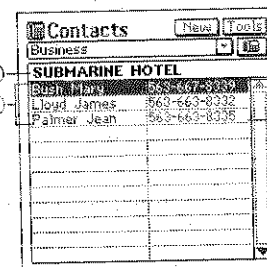
① Company name
② Names
③ Phone numbers

5. Rotate the **Action** control to move the highlighting to the name of the person whose data you want to view, and then press the **Action** control to display the data screen for that person.

To view other data

1. In a Contacts list screen, tap the ▼ arrow to the right of the category name box to open a list of categories.
2. Tap the name of the category (besides **Business**) whose data you want to view.
3. Rotate the **Action** control to move the highlighting in the index at the bottom of the screen to the letter that starts the data that appears in the left column of the list screen.
   - The data that appears in the left column depends on the category you selected.
4. Double-tap the data item in the list to display its data screen.

Changing Contacts List Screen Contents

You can specify one of the entries (fields) that appears in the list screens of the Personal category and the five Untitled categories, and of the employee list screen that appears when you select a company name from the Business category list. The following table shows the entries (fields) in each list screen that are selectable, and those that are fixed (cannot be changed).

Category	Fixed Entries (Fields)	Selectable Entries (Fields)
Business (Employee List)	Name	All entries besides Name
Personal	Name	All entries besides Name
Untitled 1-5	Free 1	All entries besides Free 1
Latest calls	All entries are fixed.	None
All	All entries are fixed.	None
Business (Company List)	All entries are fixed.	None

- As indicated above, the contents of the Latest calls list, All list and Business category company list cannot be changed.
- You can make separate settings for each of the five Untitled categories.

To change the contents of a category's list

1. Display the Contacts list of the category whose contents you want to change.
2. Tap the button under the **Tools** button to display a list of entries (fields) that can be displayed in the list.
3. Tap the entry name that you want to display in the list together with the fixed entry.
   - You can specify only one field per list.
   - Tapping an entry name closes the list entry selection screen and displays the list with the entry you selected.

Changing Contacts Input Screen Contents

Use the procedure described here to change the contents of the Contacts Mode data input screen for each category. The following table shows the entries (fields) in each input screen that are selectable, and those that are fixed (cannot be changed).

Category	Fixed Entries (Fields)	Selectable Entries (Fields)
Business	Name	All entries besides Name and Company
	Company	
Personal	Name	All entries besides Name and Phone (H)
	Phone (H)	
Untitled 1-5	Free 1	All entries besides Free 1 and Free 2
	Free 2	

* You can make separate settings for each of the five Untitled categories.

To change the contents of a category's input screen

1. Display the Contacts list of the category whose input screen's contents you want to change.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Prompt edit** to display a list of entries (fields) that can be displayed in category's input screen.
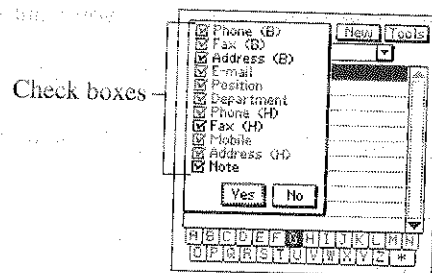
Check boxes →

* The above is the entry selection screen for the Business category.

3. Tap the check box next to an entry to toggle it between checked (display entry) and unchecked (do not display entry).
* You can check or uncheck any of the displayed entries shown on the screen.

4. After making the settings you want, tap **Yes** to save them and close the entry selection screen.

Managing Untitled Categories and Free Entries

You can use the procedures described here to change the names of each of the five Untitled categories, and the names of the 13 entries (fields) under each of the Untitled categories.

Contacts Categories

There are seven categories in the Contacts Mode: the two preset categories named Business and Personal, and five undefined categories named Untitled 1 through Untitled 5.

The Business and Personal categories contain identical entries (fields). The difference between them is the sequence the fields appear on the display, and how data is sorted.

The Untitled categories contain entries that can be configured by you.

Contacts Field Names

Business	Personal	Untitled 1 - 5
Name*	Name*	Free 1*
Company*	Phone (H)	Free 2
Phone (B)	Fax (H)	Free 3
Fax (B)	Mobile	Free 4
Address (B)	Address (H)	Free 5
E-mail	E-mail	Free 6
Position	Company	Free 7
Department	Phone (B)	Free 8
Phone (H)	Fax (B)	Free 9
Fax (H)	Position	Free 10
Mobile	Department	Free 11
Address (H)	Address (B)	Free 12
Note	Note	Free 13

* Indicates entries on which data items are sorted.
- (B): Business
- (H): Home

To edit Contacts Untitled category and Free entry names

1. In the Contacts Mode, display the list screen of the Untitled category you want to edit.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Name edit**.

3. Tap the category name or one of the entry names, and make any changes you want. Repeat this step for as many names as you want to change.
- You can assign category names up to 14 characters long, and entry names up to 10 characters long.

4. After everything is the way you want, tap **Save** to store the data.

Copying Data Items Between the Personal and Business Categories

You can select a Personal data item and copy it to create a Business data item, and vice versa. You can then make any changes you want in the copy.

To copy data items between the Personal and Business categories

1. In the Business or Personal category, select the data item you want to copy.
- You can select an item by displaying its data screen or by tapping the item on a list screen.

2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Business ↔ Personal**.
- This creates a copy of the data item you selected in step 1. If you originally selected a Business data item, a Personal item is created. If you originally selected a Personal item, a Business item is created.

3. Make any changes in the data you want.
4. After you are finished, tap **Save** to save the copied data as a new data item.

Exporting Contacts Data Into a Schedule Item

The following procedure lets you export Contacts data into the description text of a Schedule item, which provides you with handy reference information about the person you are planning to meet.

To export Contacts data into a Schedule item

1. Display the data item (record) you want to export.
2. Tap **New – Appointment**.
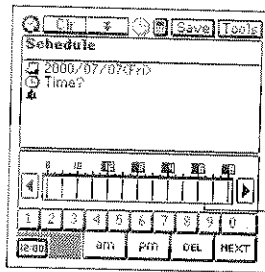
Time bar

3. Input the date, time, alarm time, and any additional description text you want.
4. Tap **Save** to store the item.
- The applicable entries (fields) of the Contacts item are exported into the Schedule item. See "Importing Contacts Data Into a Schedule Item" on page 36 for details on which entries are exported.
- Note that Contacts data can be exported to create a new Schedule item only. You cannot use this procedure to export into an existing Schedule item.

The Memo Mode works much like a basic word processor. It lets you input and store text files for later recall when you need them.

Entering the Memo Mode

Tap the **Memo** icon below the PV Unit screen to enter the Memo Mode.
You can also enter the Memo Mode by tapping **Menu** to display the Mode Menu, and then selecting **Memo**.
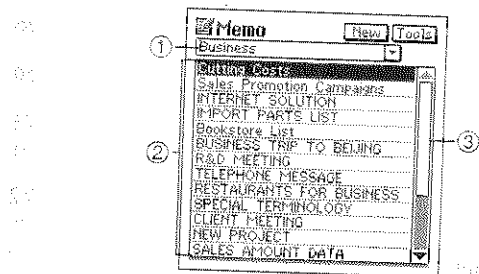
① Category name box
② Memo titles
③ Scroll bar

*   This is the Memo list screen, which appears first when you enter the Memo Mode.
*   The display category is the one that was selected when you last exited the Memo Mode.

Changing the Display Category

1. Display the Memo list screen.
*   Note that you can change the display category only from the Memo list screen.

2. Tap the ▼ arrow to the right of the category name box to open a list of categories, and tap the one you want to select.
*   The Memo Mode list changes to show all memos stored under the category you select.
*   All Memo Mode categories are initially named Untitled (1 through 5). See "Renaming Memo Categories" on page 75 for details on changing Memo Mode category names.

Inputting New Memo Data

Data input procedures are the same for all categories.

To input new Memo data

1. While a Memo Mode list or data screen is on the display, tap the **New** button.

2. Tap the category where you want to input the data.
*   In this example, tap **Business**.

① Prompt
② Data input tool bar
③ Category name
④ Text keyboard
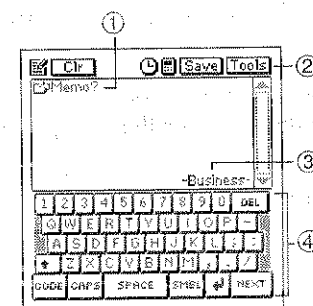
3. Input the text of the memo. The first line appears in the Memo list screen, so it is a good idea to input a descriptive title in the first line for later reference.

4.   After you finish inputting all the data that you want, tap **Save** to store it.

```
List  ↑ ↓  Edit  New  Tools
SALES AMOUNT DATA

  Amount Total in 1999

  East Region=$250,000

  West Region=$400,000

  North Region=$350,000

  South Region=$260,000
```
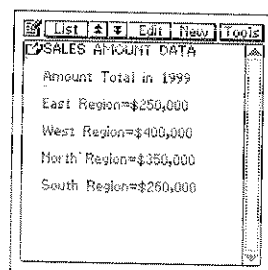
Viewing Memo Data

The following procedures explain how to recall a memo item (record) for viewing, and how to expand the data display to fill the entire screen.
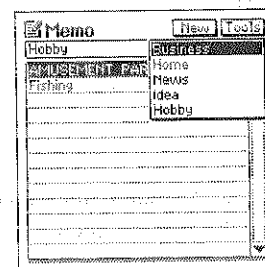
To view memo data

1.   Display the Memo list screen.
 • Note that you can change the display category only from the Memo list screen.
2.   Tap the ▼ arrow to the right of the category name box to open a list of categories, and tap the one that contains the data you want to view.

```
Memo                New  Tools
Business

Cutting Costs
Sales Promotion Campaigns
INTERNET SOLUTION
IMPORT PARTS LIST
Bookstore List
BUSINESS TRIP TO BEIJING
R&D MEETING
TELEPHONE MESSAGE
RESTAURANTS FOR BUSINESS
SPECIAL TERMINOLOGY
CLIENT MEETING
NEW PROJECT
SALES AMOUNT DATA
```

Memo titles

3.   Rotate the **Action** control up or down to select the title of the memo you want to view, and then press the **Action** control to display its contents.

```
List  ↑ ↓  Edit  New  Tools
PARTS PRICE LIST

  1.PERFORMANCE LINE

  STR-10:$80
  STR-11:$85
  STR-11(A):$90

  DVS-1200:$150
  DVS-1200(A):$160

  WR-9000:$200
  WR-9500:$280
  WR-9500(A):$300

  2.PROFESSIONAL LINE
```
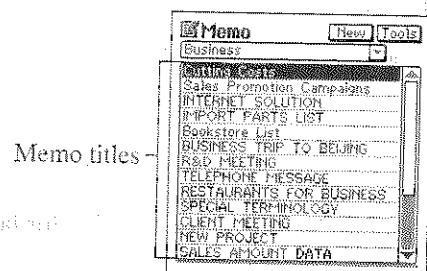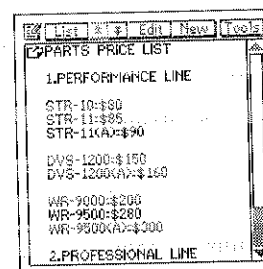
To display an item in the full-screen view

1.   Select the memo whose contents you want to display in the full-screen view.
 • You can select a memo by highlighting it in the list screen or by displaying its data screen.
2.   Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Full screen**.

```
PARTS PRICE LIST
1.PERFORMANCE LINE
STR-10:$80
STR-11:$85
STR-11(A):$90

DVS-1200:$150
DVS-1200(A):$160

WR-9000:$200
WR-9500:$280
WR-9500(A):$300

2.PROFESSIONAL LINE

PRM-1:$480
PRM-1L:$550
PRM-S(A):$700
```
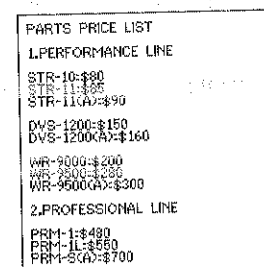
 • You can use the **Action** control to scroll the screen contents up and down.
 • Tap **Esc** to return to the normal view.

Changing the Order within a List Screen

Use the following procedure when you want to move a memo to different location within the list screen of the same category.

- You can't move a memo from one category to another.

To move a memo

1. Display the list screen that contains the memo you want to move, and tap the memo title to highlight it.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Move**.

3. Tap the memo above which you want to move the memo you selected in step 1.
4. Tap **Exe** to move the memo.

Renaming Memo Categories

Use the following procedure to change the name of a Memo category.

To change the name of a category

1. In the Memo Mode, display the list screen for the category whose name you want to change.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Name edit**.
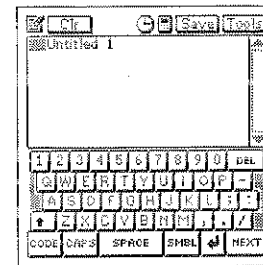
3. Type in the name you want to assign to the category, and then tap **Save** to save it.
- You can use up to 14 characters for a category name.
- Category names revert to their preset defaults whenever the PV Unit is reset.

The Expense Manager is like having your own personal bookkeeper along with you wherever you go. You input transaction data as it occurs, and later you can calculate periodic totals. It's the easy way to keep track of your finances day by day.

5

Entering the Expense Manager Mode

Enter the Expense Manager Mode by tapping **Menu** to display the Mode Menu screen, and then selecting **Expense**. This displays a transaction list for today's date, as kept by the PV Unit's clock.

① Date jump button
② Data display toolbar
③ Periodic total button
④ Date total
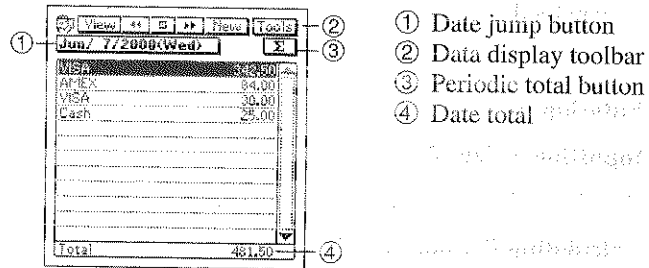
Inputting a New Transaction

1. In any Expense Manager Mode list screen or data screen, tap New to display a new transaction input screen.

① Data input tool bar
② Transaction date
③ Transaction amount
④ Payment type
⑤ Expense type
⑥ Date keyboard

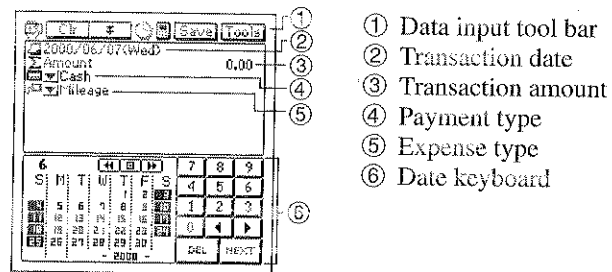- The date that was shown in the date jump button is automatically assigned as the transaction date of a new item. You can leave this date as it is or change it. Tap **NEXT** after you are finished.

2. Input the amount of the transaction, and then tap **NEXT**.
- An Expense Manager item must have date and amount data. Otherwise, the PV Unit will refuse to store the data when you tap **Save** below.

3. Tap the ▼ arrow to the left of the payment type to open a list of available payment types, and select the one you want to assign to the transaction.
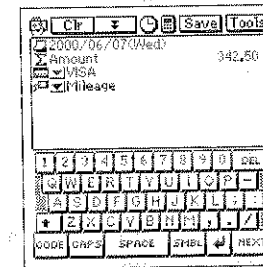
- You could also use the text keyboard to input a payment type or to change the payment types inside the list. Payment types can be up to 14 characters long.

4. Tap **NEXT**.
5. Tap the ▼ arrow to the left of the expense type to open a list of available expense types, and select the one you want to assign to the transaction.
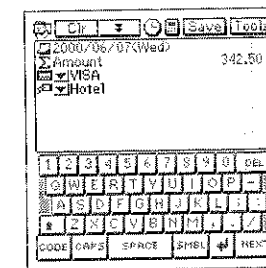
- You could also use the text keyboard to input a expense type or to change the expense types inside the list. Expense types can be up to 14 characters long.

6. After everything on the screen is the way you want, tap ▼ to advance to the description input screen.

7. After inputting the description, tap **Save** to save it.
* If you want to save the transaction without inputting a description, tap **Save** to save it without inputting description text.

Recalling Expense Manager Data

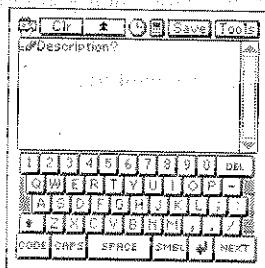1. In the Expense Manager Mode list screen, tap the date jump button.
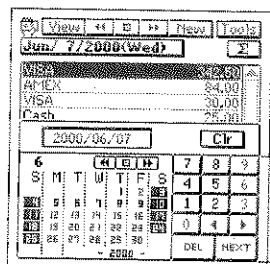
Date keyboard

2. Input the date to which you want to jump, and then tap **NEXT**.
* You can also scroll forward and back through the dates by tapping ◄◄ and ►► in the data display toolbar.
* Rotating the **Action** control scrolls sequentially through the dates.

3. To select the contents of the list screen, tap the **View** button in the data display toolbar to open a menu of data types.
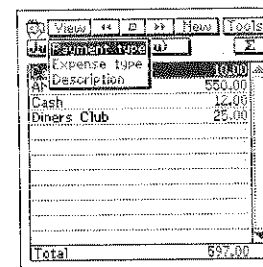
4. Tap the type of data you want to display in the list.
5. To display the data screen of a transaction, tap the transaction to highlight it and then tap it again.
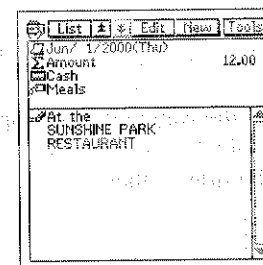
Calculating Periodic Totals

This section describes how to calculate total for a period you specify. You can calculate a periodic total for a specific payment type or expense type.

To calculate a periodic total

1. In the Expense Manager Mode list screen, tap the [Σ] button.

Total type — / Date keyboard
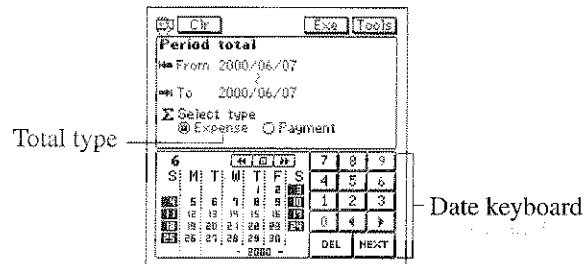
2. Input the start date and the end date of the period for which you want to calculate a total.
3. Tap either **Expense** or **Payment** to specify the type of total you want to calculate.
4. When the date and total type are the way you want, tap the **Exe** button.
*   The total of all transactions for which an expense type or payment type is not defined is shown under the title "Other".

5. Tap **Esc** to return to the list screen.

Managing Payment and Expense Types

Your PV Unit comes with the built-in payment and expense types shown below. You can use these as they are, or you can change the names of the built-in payment and expense types to suit your own needs.

Built-in Payment and Expense Types

Payment Types	Expense Types
Cash	Mileage
Checking A	Fuel
Checking B	Parking & Tolls
Savings	Taxi
AMEX	Meals
VISA	Phone
Master Card	Entertainment
DISCOVER	Hotel
Diners Club	Miscellaneous
Free	Free

To change a payment type or expense type name

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Label edit**.

2. Tap either **Payment type** or **Expense type**.
   - The following screen appears when you tap **Payment type**.
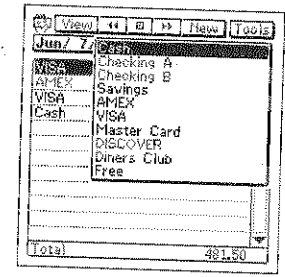
3. Use the **Action** control to select the item whose name you want to edit, and then press the **Action** control.
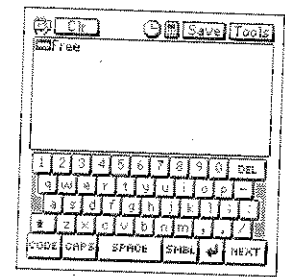
4. Input up to 14 characters for the name that you want to assign to the payment type or expense type.
5. After the name is the way you want, tap **Save** to save it.

The Currency Converter lets you instantly convert from one currency to two other currencies. You can even convert between euros and national currencies.

Entering the Currency Converter Mode

To enter the Currency Converter Mode

Tap the Menu icon to display the Mode Menu, and then tap Conversion.

① Tabs
② Currency names
③ Calculator keyboard
④ Rate Table button
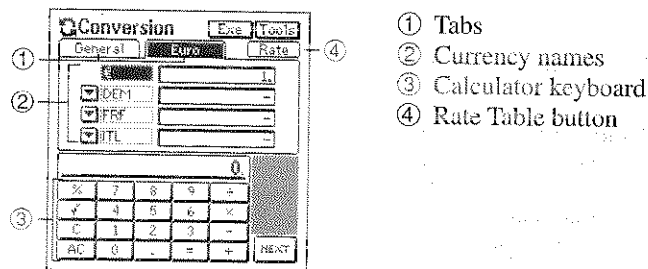
- Use the General tab for general currency conversion and the Euro tab for euro currency conversion.

General Currency Conversion

You can perform general currency conversion calculations using the General tab of the Currency Converter. When you input a value, it is instantly calculated to the equivalent of two other currencies.

Performing a Conversion

Before actually performing a conversion, you must first set the exchange rate for each of the currencies and change the currency names, if you want. See "Changing the Currency Name and Rate" on page 87 for details.

To perform a conversion

Example: To find out the dollar and yen equivalents of 2 pounds.

---

1. In the Currency Converter, tap the General tab.
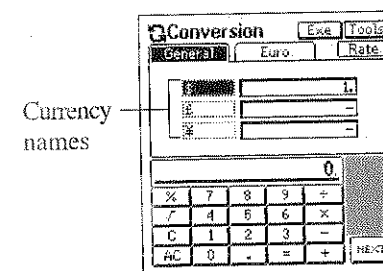
Currency names

2. Tap the name of the currency from which you want to convert. In this example you would tap £.
3. Use the calculator keyboard to input an amount into for the selected currency and then tap = (or NEXT). In this example you would tap 2 =.
4. Tap Exe to perform the conversion.

Changing the Currency Name and Rate

Use the following procedures to change the currency names that appear on the General tab, and the rates used for performing currency conversion calculations. Note that you must constantly update conversion rates to keep them current.

To set a conversion rate

1. While the **General** tab is displayed on the Currency Converter screen, tap the **Menu Bar** icon to display the menu bar, and then tap Option – **Rate edit**.
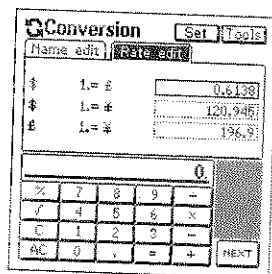
2. Tap the exchange rate value you want to change.
3. Use the calculator keyboard to input the rate and then tap = (or **NEXT**).
4. Now you can tap **Set** to apply the rate and close the editing screen or you can tap **Name edit** and display the name editing tab.

To change a currency name

1. While the **General** tab is displayed on the Currency Converter screen, tap the **Menu Bar** icon to display the menu bar, and then tap Option – **Name edit**.
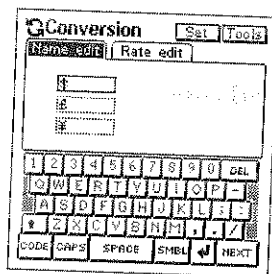
2. Tap the currency name you want to change.
3. Use the text keyboard to input a name up to four characters long.
4. Now you can tap **Set** to apply the name and close the editing screen, or you can tap **Rate edit** and display the rate editing tab.

Checking the Current Rates

Use the following procedure to display the rate table, which shows the current rates set for each currency.

To display the rate table

While the **General** tab is displayed on the Currency Converter screen, tap the **Rate** button.
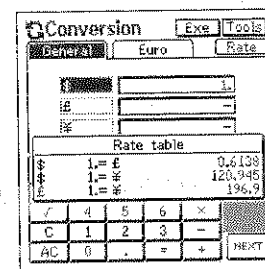
To close the rate table, tap anywhere on the screen outside of the rate table.

■ Euro Conversion

The **Euro** tab lets you convert between euros and any three of the 11 national currencies of countries where the euro is used.

Performing a Conversion

The 11 national currencies are preset with the exchange rates and decimal place specifications shown the "Euro Conversion Rate Presets" table on page 184. If necessary, you can change exchange rates for each of the currencies and change the currency names. See "Changing the Currency Name and Rate" on page 92 for details.
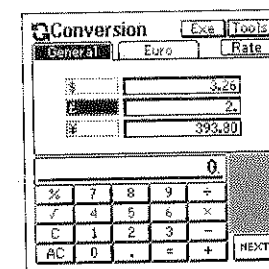
To perform a conversion

Example: To find out the mark, franc, and lira equivalents of 5 euros.

1. In the Currency Converter, tap the **Euro** tab.

Currency
names
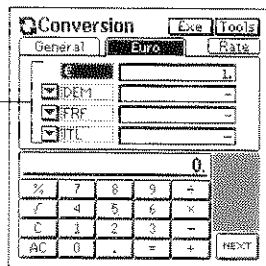
2. Tap the name of the currency from which you want to convert. In this
   example you would tap €.
3. Use the calculator keyboard to input an amount into for the selected
   currency and then tap = (or **NEXT**). In this example you would tap **5** =.
4. Tap **Exe** to perform the conversion.
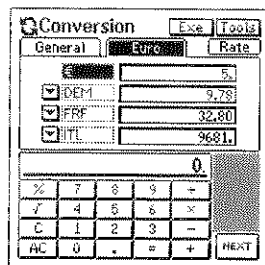
Important!
- The number of significant digits of this product is 11.
  Errors may be generated in currency conversion calculations that produce
  results greater than the values shown below.

€1.00=	Euro → National Currency	National Currency → Euro
DEM	1.95583	511,291,881.19 → 999,999,999.99	1,955,830,000.00 → 1,000,000,000.00
FRF	6.55957	152,449,017.23 → 999,999,999.95	6,559,570,000.00 → 1,000,000,000.00
ITL	1936.27	51,645,689.90 → 99,999,999,083	999,999,999,999 → 516,456,899.09
ESP	166.386	601,012,104.38 → 99,999,999,999	166,386,000,000 → 1,000,000,000.00
NLG	2.20371	453,780,216.08 → 999,999,999.98	2,203,710,000.00 → 1,000,000,000.00
BEF	40.3399	2,478,935,247.71 → 99,999,999,999	40,339,900,000 → 1,000,000,000.00
PTE	200.482	498,797,897.06 → 99,999,999,998	200,482,000,000 → 1,000,000,000.00
ATS	13.7603	72,672,834.16 → 999,999,999.89	13,760,300,000.00 → 1,000,000,000.00
FIM	5.94573	168,187,926.46 → 999,999,999.99	5,945,730,000.00 → 1,000,000,000.00
IEP	0.787564	1,269,738,078.42 → 999,999,999.99	787,564,000.00 → 1,000,000,000.00
LUF	40.3399	2,478,935,247.71 → 99,999,999,999	40,339,900,000.00 → 1,000,000,000.00

Changing the Displayed National Currencies

Use the following procedure to select from among the 11 national currencies
and display the ones you want on the **Euro** tab.

To change the displayed national currencies

1. On the Currency Converter **Euro** tab, tap the ▼ button next to the
   currency you want to change.
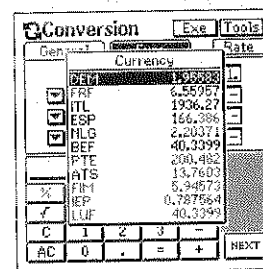
2. Tap the currency you want to use.

Checking the Current Rates

Use the following procedure to display the rate table, which shows the current rates set for each currency.

To display the rate table

While the **Euro** tab is displayed on the Currency Converter screen, tap the **Rate** button.
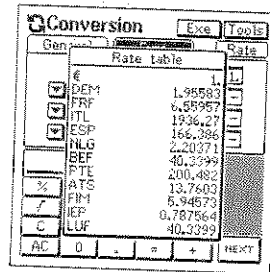
To close the rate table, tap anywhere on the screen outside of the rate table.

Changing the Currency Name and Rate

You can use the following procedures to change the names and rates of the national currencies. Note that you cannot change the euro symbol or exchange rate.

To set a conversion rate

1. While the **Euro** tab is displayed on the Currency Converter screen, tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Rate edit**.
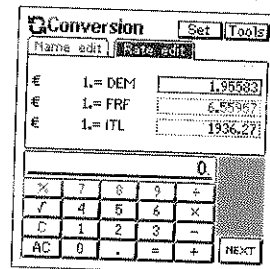
2. Tap the exchange rate value you want to change.
3. Use the calculator keyboard to input the rate and then tap = (or **NEXT**).
4. Now you can tap **Set** to apply the rate and close the editing screen or you can tap **Name edit** and display the name editing tab.

To change a currency name

1. While the **Euro** tab is displayed on the Currency Converter screen, tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Name edit**.
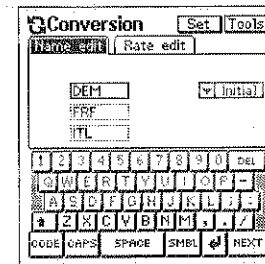
2. Tap the currency name you want to change.
3. Use the text keyboard to input a name up to four characters long.
 * Tapping the **Initial** button displays a list of initial default currency names and rates. Tapping on a currency in this list returns its name and exchange rate to the settings shown on the list.

4. Now you can tap **Set** to apply the name and close the editing screen or you can tap **Rate edit** and display the rate editing tab.

Setting the Rounding Method

Normally, you can leave the preset rounding settings the way they are for each currency. When necessary, however, you can use the following procedure to change them.

To specify the rounding method

1. Tap the **General** or **Euro** tab.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Rounding**.

```
QConversion        Set  Tools
 Rounding

 DEM   0   2   Free
 FRF   0   2   Free
 ITL   0   2   Free


     Cut   5/4   Up
```
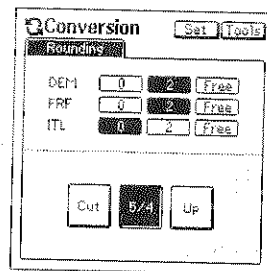
3. Specify the number of decimal places for each currency.
* 0 and 2 specify the number of decimal places for the Cut, 5/4, and Up rounding methods.
* Free specifies a floating decimal point, which displays the value without rounding.

4. Tap a button at the bottom of the screen to specify the rounding method.
* The rounding method you select is applied for all currency conversion calculations involving a currency for which you specified 0 or 2 decimal places in step 3, above.

   Cut: Cuts off the decimal part to the specified number of places.
   5/4: Rounds off the decimal part to the specified number of places.
   Up: Rounds up the decimal part to the specified number of places.

5. After everything is the way you want, tap **Set**.

Quick-Memo is like having a digital memo pad on which you can sketch simple line drawings or jot down reminders.

7

Entering the Quick-Memo Mode

Tap the **Quick-Memo** icon below the PV Unit screen to enter the Quick-Memo Mode.

① Draw toolbar
② Input toolbar
③ Quick-Memo category button
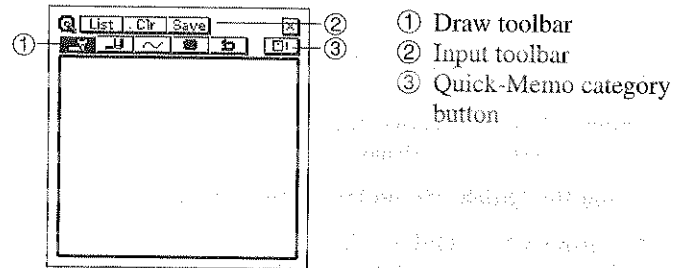
- This is the Quick-Memo input screen, which appears first whenever you enter the Quick-Memo Mode.

Quick-Memo Categories

There are three Quick-Memo categories. As with categories in other modes, Quick-Memo categories let you group your memos for easier management.

To select a Quick-Memo category

Tap the Quick-Memo category button to cycle through the Quick-Memo categories in the following sequence: [□1] → [□2] → [□3] → [□1], etc.

The display shows the Quick-Memos that are stored under the currently selected category.

Using the Quick-Memo Drawing Tools

The following describes the functions of the Quick-Memo Drawing tools when inputting Quick-Memo data.
Tap a drawing tool with the stylus to select it. The currently selected drawing tool is highlighted on the toolbar. Tapping some of the drawing tools also cycles through a number of optional settings.

① Pencil
② Eraser
③ Line
④ Color
⑤ Undo
⑥ Selected tool
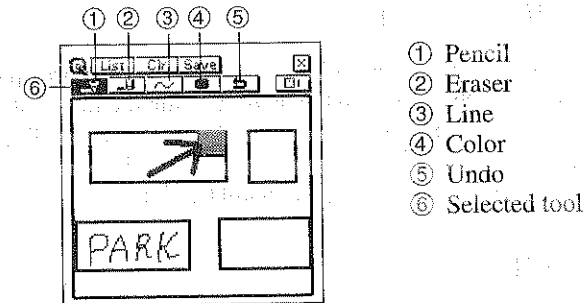
Important!
A diagonal line may appear jagged on the display, even in the Quick-Memo list (page 101).

Pencil Tool

- Tap this tool to cycle through line thickness in the sequence: medium → thick → thin → medium, etc.
- Dragging the stylus on the screen while this tool is selected draws a line.
- Note that you can control the type of line produced by the pencil tool with the line tool, described below.

Eraser Tool ⊟ ⊟ ⊟

- Tap this tool to cycle through eraser thickness in the sequence: medium ⊟ → thick ⊟ → thin ⊟ → medium ⊟ , etc.
- Dragging the stylus on the screen while this tool is selected erases anything along the line.
- Note that you can control the type of path produced by the eraser tool with the line tool, described below.

Line Tool ⊡ ⊡ ⊞ ⊡

- Tap this tool to cycle through the type of line or eraser path produced when dragging the stylus on the display while the line tool or eraser tool is selected. Each tap of this tool cycles through the line type in the sequence: freehand ⊡ → straight ⊡ → vertical/horizontal ⊞ → rectangle ⊡ → freehand ⊡ , etc.

Color Tool ⊟ ⊟

- Tap this tool to toggle the darkness of the line between the following settings: black ⊟ ↔ gray ⊟ .

Undo Tool ⊟

- Tap this tool to undo the last draw operation you just performed.

Creating a New Quick-Memo

Use the procedures in this section to draw the figures you want in a Quick-Memo.

To input a new Quick-Memo

1. Enter the Quick-Memo Mode.
2. Tap the ⊡ (category) button to select the category where you want to save the Quick-Memo.
3. Use the drawing tools to draw the figure you want.
- To clear all Quick-Memo screen contents, tap **Clr**.

4. After you are finished, tap **Save** to save the Quick-Memo.
- If you want to input another Quick-Memo, tap **New**.

To draw a freehand line

1. Use the line tool ⊡ to select freehand.
2. Drag the stylus on the display to draw the line you want.
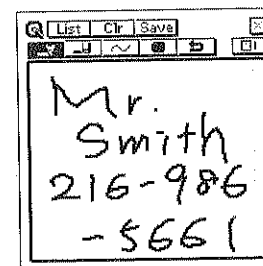
To draw a straight line

1. Use the line tool [/] to select straight line.
2. Drag the stylus on the display to draw the line.
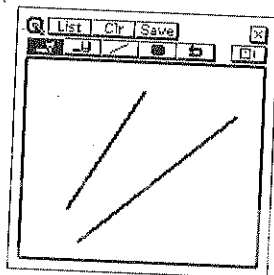
To draw a vertical or horizontal line

1. Use the line tool [+] to select the vertical/horizontal line.
2. Drag the stylus on the display to draw the line.
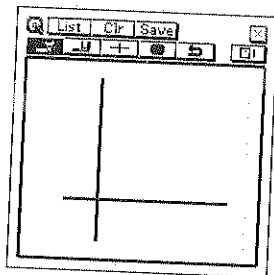
To draw a rectangle

1. Use the line tool [▭] to select the rectangle.
2. Drag the stylus on the display to draw the rectangle.

Recalling a Quick-Memo

Use the following procedure to scroll through a list of Quick-Memos and find the one you want. Then you can select a Quick-Memo in the list to view it.

To recall a Quick-Memo

1. While the Quick-Memo input screen is on the display, tap **List**.
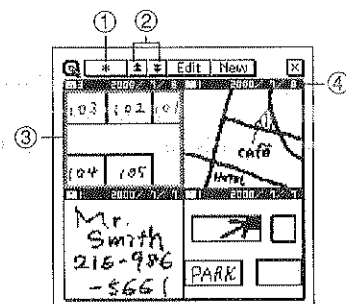
① Category button
② Scroll buttons
③ Selected Quick-Memo
④ Creation date

* This is the Quick-Memo list screen.

2. Tap the category button to specify the category whose Quick-Memos you want to view. Selecting [*] displays the Quick-Memos in all categories.
3. Use the scroll buttons to scroll through the Quick-Memos in the currently selected category.
4. When the Quick-Memo you want to recall is on the screen, tap it with the stylus to select it.

5. Tap the selected Quick-Memo to change to its data display.
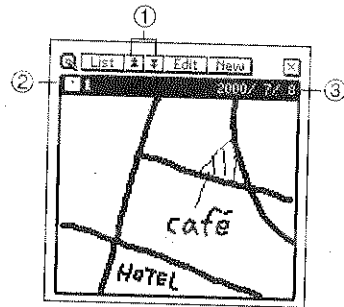
① Scroll buttons
② Category of displayed Quick-Memo
③ Creation date

6. In the Quick-Memo data display, you can use the scroll buttons to scroll back and forward to the data display of other memos.
7. After viewing the Quick-Memo, tap **List** to return to the list screen.

■ Screen Copy

The screen copy feature lets you copy an image of certain screens and store it as a Quick-Memo screen. The following is a list of screens that you can copy with the screen copy feature.

Mode	Data that can be screen copied
Contacts	All list and data screens
Scheduler	All calendar screens (1, 2, 3-month) Weekly Scheduler Daily Scheduler To Do List Reminder List All data screens
Expense Manager	Screens listing periodic totals by expense types or payment types (page 82) All list and data screens
Memo	All list and data screens
Currency Converter	Conversion calculation screens

To record a screen copy

1. Display the data for which you want to record a screen copy.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Option – Screen copy**.
* The PV Unit switches to the Quick-Memo Mode, with the new screen copy on the display. Make any additions or changes if you want, and then store the image by tapping **Save**.

Secret Function

Your PV Unit lets you set up a secret memory area that keeps your data safe and secure under a password you specify. After you enter the secret memory area, you can use the Scheduler, Contacts, Memo, and Expense Manager modes to store data.

Important!
* You can have only one secret memory area at any one time.
* All secret data for all modes is stored in the same secret memory area, regardless of what mode you were in when you created the secret memory area.
* Make sure you do not forget your password! There is no way to look up a password if you forget it. You will have to reset the PV Unit and clear all its memory contents in order to clear a forgotten password and create a new secret memory area.

Creating a New Secret Memory Area

Use the following procedure to create a new secret memory area. Note that this operation can be performed only if there is no secret memory area already in memory.

To create a new secret memory area

1. Tap the **Menu** icon to display the Mode Menu, and then tap **Secret**.
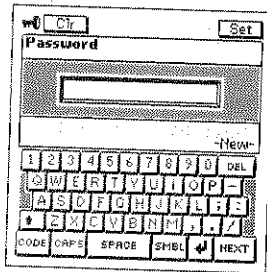
2. Input up to 12 characters for the password you want to use.
3. Tap **Set** to register your password and create a secret memory area.
4. In response to the confirmation message that appears, tap **Yes**.
   * Registering a password creates and immediately enters the secret memory area, which is indicated by the icon.

Using the Secret Memory Area

The following describes the operations you can perform after you create a secret memory area.

To enter an existing secret memory area

1. Tap the Menu icon to display the Mode Menu, and then tap **Secret**.
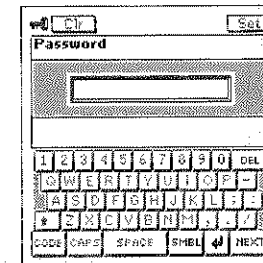
2. Input the correct password, and then tap **Set**.
   * If the password is correct, the PV Unit enters the secret memory area.
   * Once you enter the secret memory area, you can move between it and the open (non-secret) memory area without having to input the password again until you turn power off and then back on again.

To exit the secret memory area

1. While in the secret memory area, tap the **Menu** icon to display the Mode Menu.
2. Tap **Secret** to exit the secret memory area and return to the open memory area.

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To change your password

1. While in the secret memory area, tap the **Menu** icon to display the Mode Menu.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Password edit**.
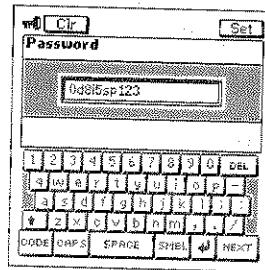
3. Input up to 12 characters for the new password you want to use.
4. Tap **Set** to register the new password.
5. In response to the confirmation message that appears, tap **Yes**.

To transfer data from the open memory area to the secret memory area

1. Enter the mode that contains the data you want to transfer to the secret memory area.
2. Select the data item you want to transfer.
* You can select a data item (record) by highlighting it on a list screen, 1-Month Calendar screen, etc. or by displaying the data item's data screen.

3. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – To secret area**.
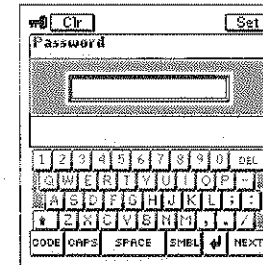
4. Input the correct password and then tap **Set**.
* You do not need to input the password if you have entered the secret memory area since you last turned on power.
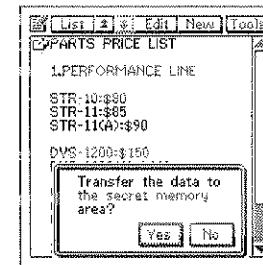
5. Tap **Yes** to transfer the data.

To transfer data from the secret memory area to the open memory area

1. Enter the secret memory area.
2. Enter the mode that contains the data you want to transfer to the open memory area.
3. Select the data item you want to transfer.
   * You can select a data item (record) by highlighting it on a list screen, 1-Month Calendar screen, etc. or by displaying the data item's data screen.

4. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – To open area**.

```
List  ↑ ↓  Edit  New  Tools
Jackson Eric
GOODWELL TEXTILE
075-563-7235
075-563-7238
QD Building, 10250 QD Road
  Chicago
jac0328@xxx.yy.zz.oo
Vice President
Latin America Region

  Transfer the data to
  the open memory
  area?
              Yes    No
```
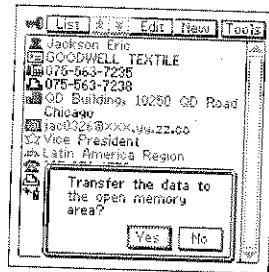
5. Tap **Yes** to transfer the data.

The pop up tools of the PV Unit provide you with instant access to a calculator, a calendar, and a clock whenever you need them.

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Displaying the Pop Up Tool Screen

While a screen that has a mode icon in its upper left-hand corner is on the display, tap the mode icon to display the pop up tool screen.
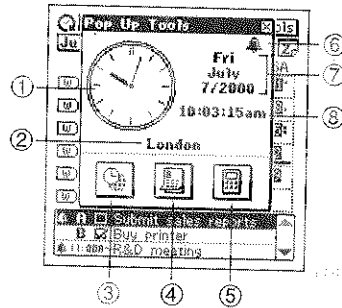
① Clock
(Tap to display date/time setting screen on page 166.)
② Home city
③ Clock icon
④ Calendar icon
⑤ Calculator icon
⑥ Alarm indicator
(Tap to display alarm setting screen on page 168.)
⑦ Current date
⑧ Current time

Important!
• You can use only one pop up tool at a time. This means the calculator screen will not appear while the clock screen is on the display, etc.

Using the Clock Screen

The clock screen shows two clocks and the cities whose times are displayed on the clocks. It also shows whether daylight saving time (summer time) is set for either clock, and the date in the city of the main (currently selected) clock.

To display the clock screen

On the pop up tool screen, tap the [🕓] icon.
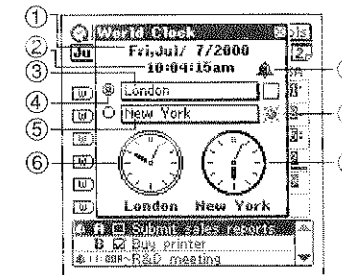
① Date in city of main clock
② Time in city of main clock
③ Clock 1 city name
④ Main clock
⑤ Clock 2 city name
⑥ Clock 1
⑦ Alarm indicator
(Tap to display alarm setting screen on page 168.)
⑧ Daylight saving time indicator
⑨ Clock 2

• Holding the stylus on Clock 1 or Clock 2 causes the date and time for the clock to appear in the first two lines of the clock screen.
• You can close the clock screen by tapping [×].

To make one of the clocks the main clock

1. While the clock screen is on the display, tap the button (○) to the left of the city name whose clock you want to make the main clock.
2. In response to the confirmation message that appears, tap **Set** to change the main clock or **Esc** to close the dialog box without doing anything.

Important!
• The time being kept by the main clock affects all alarms and other date-sensitive data currently in PV Unit memory. If you set an alarm to sound at 11:00 a.m. while Tokyo time is being used for the main clock, changing to New York time, for example, will cause the alarm to sound at 11:00 a.m. New York time.
• Changing the main clock automatically resets the seconds count of the clock to 00.

To select a time zone city

1. On the clock screen, tap the city name you want to change.
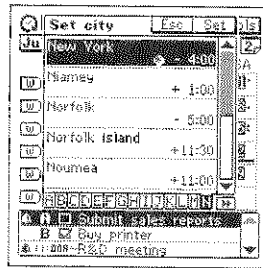
2. In the index at the bottom of the display, use the stylus to tap the letter that begins the name of the city you want to select.
3. Highlight the name of the city you want to select by tapping it or using the **Action** control.
4. When the city you want is highlighted on the screen, tap **Set** to register it and close the setting screen.

To switch between standard time and daylight saving time (DST)
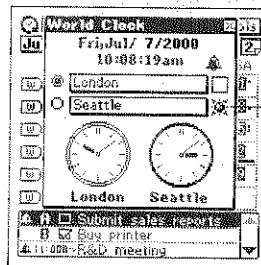
DST (summer time) setting

On the clock screen, tap on the DST (summer time) setting of one of the clocks to toggle it between DST on ( ) and DST off (no indicator).

Using the Calculator Screen

This screen provides you with a 12-digit calculator that can perform a variety of calculations.

To display the calculator

On the pop up tool screen, tap the [icon] icon.
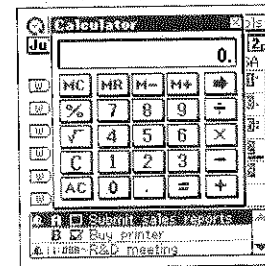
*   You can also display the calculator in certain modes by tapping the button in the data input tool bar.
*   You can close the calculator screen from the display by tapping [x].

Calculator Keys

The following describes the functions of the calculator screen keys.

- Use the number keys to input values.
- **MC** clears calculator memory.
- **MR** recalls calculator memory contents.
- **M–** subtracts the currently displayed value from memory contents. Tapping **M–** in place of = at the end of a calculation subtracts its results from memory contents.
- **M+** adds the currently displayed value to memory contents. Tapping **M+** in place of = at the end of a calculation adds its results to memory contents.
- Tap +, –, ×, and ÷ to input the corresponding arithmetic operation.
- = executes the calculation and displays its results.
- **AC** clears the calculator (except the calculator memory).
- **C** clears the display without clearing calculator memory.
- Use √ for square root calculations.
- Use % for percent calculations.
- Tapping ➡ shifts the displayed value to the right, cutting off the rightmost digit.
- If you displayed the calculator by tapping the 🖩 button in a data input tool bar, tapping [✐1234] copies the calculation result. **Edit – Paste** pastes the copied result at the current cursor location.

To perform calculations

Calculation	Keys		Result
	[AC]		0.
53 + 123 – 63 =	53[+]123[–]63[=]		113.
963 × (23 – 56) =	23[–]56[×]963[=]		–31'779.
(56 × 3 – 89) ÷ 5.2 + 63 =	56[×]3[–]89[÷]5.2		
	[+]63[=]		78.1923076923
1234567890 × 741852 =	1234567890[×]741852[=]	E	915.866658332
	[C]		915.866658332
	[AC]		0.
√3 × 5 =	3[√][×]5[=]		8.6602540378
12 + 23 =	23[+][+]12[=]	K +	35.
45 + 23 =	45[=]	K +	68.
78 + 23 =	78[=]	K +	101.
7 – 5.6 =	5.6[–][–]7[=]	K –	1.4
2 – 5.6 =	2[=]	K –	–3.6
2.3 × 12 =	12[×][×]2.3[=]	K ×	27.6
4.5 × 12 =	4.5[=]	K ×	54.
45 ÷ 9.6 =	9.6[÷][÷]45[=]	K ÷	4.6875
78 ÷ 9.6 =	78[=]	K ÷	8.125
12% of 1500	1500[×]12[%]		180.
Percentage of 660 against 880	660[÷]880[%]		75.
15% add-on of 2500	2500[×]15[%][+]		2'875.
25% discount of 3500	3500[×]25[%][–]		2'625.
What will the selling price and profit be when the purchasing price of an item is $480 and the profit rate to the selling price is 25%?	480[+]25[%]		640.
	[–]		160.
If you made $80 last week and $100 this week, what is the percent increase?	100[–]80[%]		25.
80 × 9 = 720	[MC]80[×]9[M+]	M	720.
–) 50 × 6 = 300	50[×]6[M–]	M	300.
20 × 3 = 60	20[×]3[M+]	M	60.
480	[MR]	M	480.

To perform constant calculations

1. On the calculator screen, input the first value of the operation, tap an arithmetic operator key twice, and then input the second value of the operation.
   - You can perform a constant calculation using +, −, ×, or ÷.
   - The first value you input (the one to the left of the arithmetic operator) is the one that will be used as the constant.
   - Tapping an arithmetic operator key twice causes the indicator **K** to appear on the display to indicate that a constant calculation is being performed.

2. Tap = to display the result of the operation.
   - Inputting 4 × × 2 = would produce a result of 8.

3. Tap = again to multiply the result by the constant.
   - Tapping = again with the example shown under step 2 would produce a result of 32 (8 × 4).
   - Each subsequent tap of = multiplies the last result obtained by the constant. Continuing with the above example, tapping = would produce the following results: = 128 (32 × 4), = 512 (128 × 4), = 2048 (512 × 4), and so on.

To correct entries during calculations

- If you enter a wrong value, tap **C** to clear the value and then input the correct one.
- If you tap the wrong arithmetic key (+, −, ×, ÷), simply tap the correct arithmetic key before inputting anything else.

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About calculation errors

An error indicator appears on the display and further calculation becomes impossible whenever an error occurs.

Error indicator
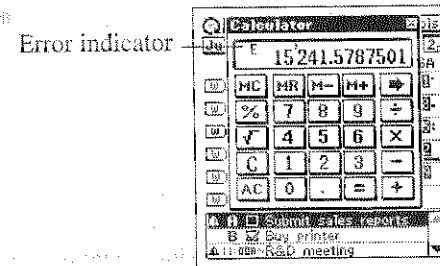
Any of the following conditions produces an error.
- Whenever the number of digits in the mantissa of an intermediate or final result exceeds 12
- Whenever the number of digits in the mantissa of a value in calculator memory exceeds 12 digits. In this case, the PV Unit automatically retains the last value stored that did not exceed 12 digits.
- Division by zero
- Attempting to calculate the square root of a negative value

To clear an error

Tap **C** to clear an error and continue with the same calculation from the point immediately before the error occurred.
To clear the entire calculation and start again, tap **AC**.

Next Appointment Screen

This screen shows a display of the current month, along with details about the next appointment scheduled from the current time and date, as kept by the main clock (if any).

To display the next appointment screen

On the pop up tool screen, tap the ▦ icon.
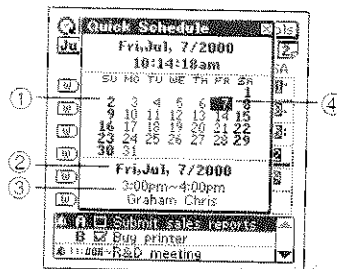
① Current month
② Date for which appointment is scheduled
③ Next appointment details
④ Next appointment

- The current month is determined in accordance with the time and date as kept by the main clock.
- The next appointment details area shows the next Schedule item or Reminder item that includes time data. It does not show any Schedule or Reminder items that do not include time data.
- The next appointment details area is blank when there is no future appointment scheduled.
- You can close the next appointment screen by tapping ⊠.

Data communications capabilities let you transfer data between two CASIO PV Units, between a PV Unit and a BN-10/BN-20 Unit, or between a PV Unit and a BN-10A/BN-20A/BN-40A Unit. You can also receive data from a CASIO SF, CSF, or NX Series Unit, and communicate with a personal computer using PC sync for Windows.

- See the manual that comes with PC sync for Windows for details on connecting to a computer and setting up for communication.

Using the Cradle

The PV Unit comes with a cradle that helps to make data communications quicker and easier. The following procedures describe how to attach the PV Unit to and detach it from the cradle.

To connect the PV Unit to the cradle

1. Turn off PV Unit power.
2. Place the PV Unit onto the cradle.
- Gently but firmly press down on the PV Unit to ensure that it is inserted into the cradle as far as it will go.
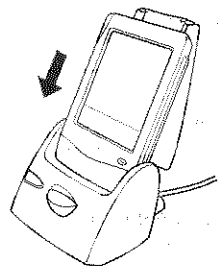
To detach the PV Unit from the cradle

1. Turn off PV Unit power.
2. Lift up on the PV Unit while holding down the cradle's **Release** button.

Release button
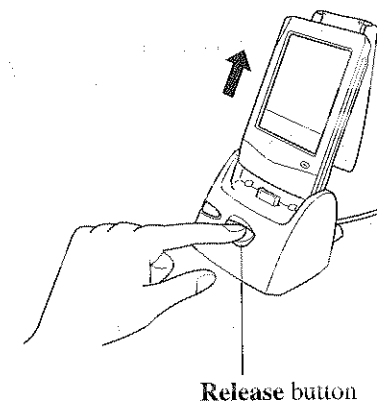
Data Communications Between Two PV Units

This section describes how to set up and communicate between two PV Units.

To connect two PV Units

1. Make sure that the power of both units is turned off.
2. Place the PV Units onto their cradles.
- Gently but firmly press down on the PV Units to ensure that they are inserted into the cradles as far as they will go.

3. Use an optional SB-90 9-9 pin connector to connect the two cradles to each other.

SB-90 9-9 pin connector
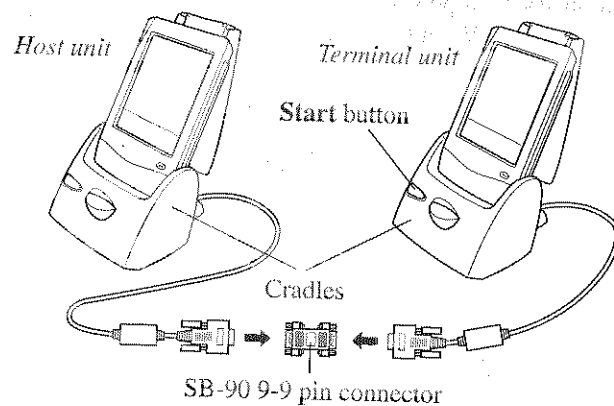
- All data communication settings must be made on only one of the PV Units only. This unit is called the *host unit*, while the other unit is called the *terminal unit*.

To send data from the host unit to the terminal unit

1. After connecting the two PV Units, turn on the host unit.
- Terminal unit power should still be off at this time.

2. Display the list view in a mode whose data can be sent with this setup.
- This configuration supports transfer of Contacts (Business, Personal, Untitled 1-5), Memo (Untitled 1-5), Schedule, To Do, Reminder, Expense Manager, and Quick-Memo data.

3. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Data communication**.
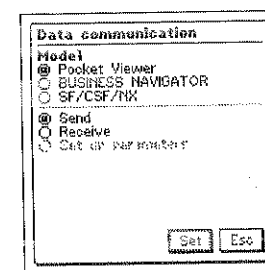
4. Tap the button next to **Pocket Viewer** to specify the data communication configuration.
5. Tap the button next to **Send**.
6. Tap **Set**.
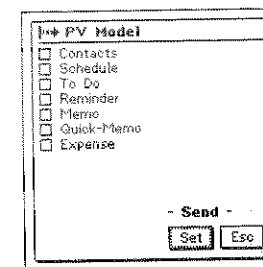
7. Tap the check boxes to specify the data you want to send (checked) and the data you do not want to send (unchecked).

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8. After everything is the way you want it, tap **Set**.
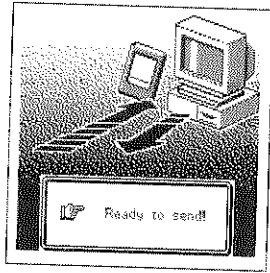
9. Turn on the power of the terminal unit and then press the **Start** button on its cradle to start the data transfer operation.

To receive data from the terminal unit on the host unit

1. Perform steps 1 through 4 under "To send data from the host unit to the terminal unit".
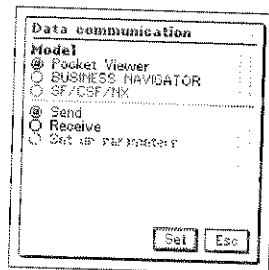
2. Tap the button next to **Receive**.
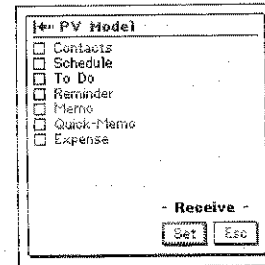
3. Tap **Set**.

4. Tap the check boxes to specify the data you want to receive (checked) and the data you do not want to receive (unchecked).
5. After everything is the way you want it, tap **Set**.
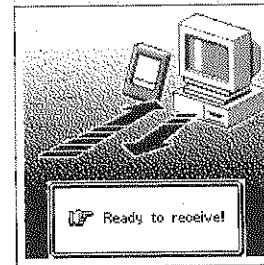
6. Turn on the power of the terminal unit and then press the **Start** button on its cradle to start the data transfer operation.

Notes

- The above procedures can be used to send or receive all data in specific modes only. You cannot send or receive individual data items.
- Data communication can be interrupted at any time by pressing **Esc**. This causes the message **Stopped!** to appear on the displays of both units.
- The message **Communication error!** appears on the displays of both units whenever data communication is interrupted due to cable disconnection, line noise, or other abnormal condition.
- If the secret memory area is accessed on a unit receiving data, the received data is stored in the secret memory area, regardless of the memory area the data is in on the sending unit.
- Transferring data from the PV-200A/PV-250X/PV-400A/PV-450X to a PV-100 or PV-200 causes all euro symbols to be replaced by spaces.
- The size of the PV-200A/PV-250X/PV-400A/PV-450X screen is 160 × 160 dots. Transferring PV-200A/PV-250X/PV-400A/PV-450X Quick-Memo data to a PV-100 or PV-200, which both have 98(V) × 124(H)-dot screens, causes the right side and bottom part of the Quick-Memo image to be cut off in order to fit the PV-100/PV-200 screen.

Data Communications Between a PV Unit and a BN Unit

This section describes how to set up and communicate between a PV Unit and a BN Unit (BN-10/BN-20 or BN-10A/BN-20A/BN-40A).

To connect a PV Unit to a BN Unit

1. Make sure that the power of both units is turned off.
2. Open the cover of the Mini Cradle port of the BN Unit, and connect its Mini Cradle to the port.
3. Place the PV Unit onto its cradle.
   - Gently but firmly press down on the PV Unit to ensure that it is inserted into the cradle as far as it will go.
4. Use an optional SB-90 9-9 pin connector to connect the PV Unit cradle to the BN Unit Mini Cradle.

Host unit (PV Unit)　　　　*Terminal unit* (BN Unit)

Cradle

Mini Cradle

START button

SB-90 9-9 pin connector
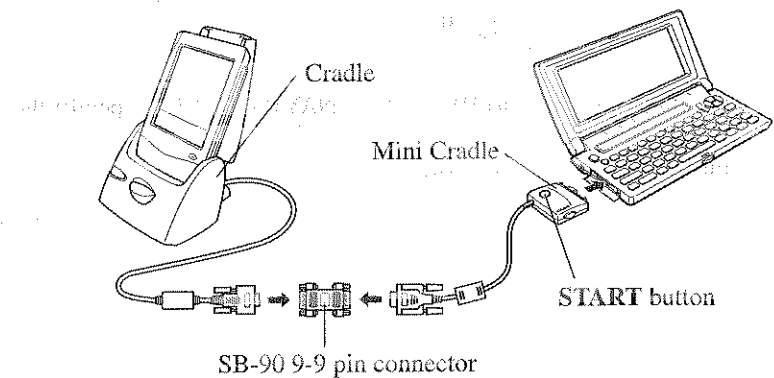
- All data communication settings must be made on the PV Unit, which is the *host unit*. The BN Unit is the *terminal unit*.

To send data from the PV Unit to the BN Unit

1. After connecting the two units, turn on the PV Unit.
- BN Unit power should still be off at this time.

2. Display the list view in a mode whose data can be sent with this setup.
- This configuration supports transfer of Contacts (Business, Personal), Memo, Schedule, To Do, and Reminder data.
- Calendar and Expense Manager data cannot be transferred.
- Contacts Untitled 1-5 data is transferred as Personal data.
- Memo Untitled 1-5 data is transferred as Memo data (no category).

3. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Data communication**.
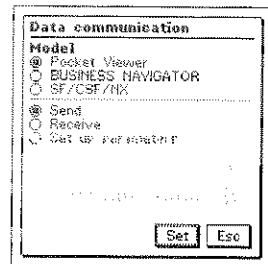
4. Tap the button next to **BUSINESS NAVIGATOR** to specify the data communication configuration.
5. Tap the button next to **Send**.
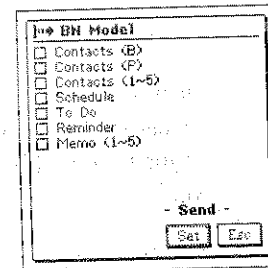
6. Tap **Set**.

7. Tap the check boxes to specify the data you want to send (checked) and the data you do not want to send (unchecked).
8. After everything is the way you want it, tap **Set**.
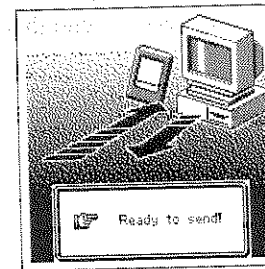
9. Turn on the power of the BN Unit and then press the **START** button on its cradle to start the data transfer operation.

- The following shows the relationship between data when sent from the PV Unit to a BN Unit.

Mode	PV Unit	BN Unit
Contacts	Untitled 1-5	PERSONAL • Check **Contacts (1-5)** as the data type to send this data.
	Category names	Not transferred
	Item (field) names	Not transferred
To Do	Category names	Not transferred
	Due date	Due date
Memo	Untitled 1-5	MEMO • Check **Memo (1-5)** as the data type to send this data.
	Category names	Not transferred
Quick-Memo	No corresponding BN Mode	
Expense Manager	Not transferred. Use the data communication software that comes with the PV Unit to transfer this data.	

To receive data from the BN Unit on the PV Unit

1. Perform steps 1 through 4 under "To send data from the PV Unit to the BN Unit".
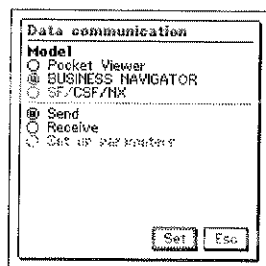
2. Tap the button next to **Receive**.
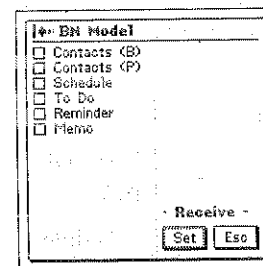
3. Tap **Set**.

4. Tap the check boxes next to specify the data you want to receive (checked) and the data you do not want to receive (unchecked).
5. After everything is the way you want it, tap **Set**.

6. Turn on the power of the BN Unit and then press the **START** button on its cradle to start the data transfer operation.

Notes
- The above procedures can be used to send or receive all data in specific modes only. You cannot send or receive individual data items.
- Data communication can be interrupted at any time by tapping **Esc**. This causes the message **Stopped!** to appear on the displays of both units.
- The message **Communication error!** appears on the displays of both units whenever data communication is interrupted due to cable disconnection, line noise, or other abnormal condition.
- If the secret memory area is accessed on a unit receiving data, the received data is stored in the secret memory area, regardless of the memory area the data is in on the sending unit.

- Transferring data from the PV-200A/PV-250X/PV-400A/PV-450X to the BN Unit causes all euro symbols to be replaced by spaces.
- The following shows the relationship between data when received by the PV Unit from a BN Unit.

Mode	BN Unit	PV Unit
Contacts	PERSONAL	Personal
	BUSINESS	Business
Scheduler	SCHEDULE	Schedule
	TO DO	To Do
	REMINDER	Reminder
Memo	MEMO	Memo (Untitled 1)

- The **Company** entry of the PV Unit is equivalent to the **Employer** entry of a BN Unit.

■ Receiving Data From an SF/CSF/NX Series Unit

This section describes how to set up and receive data from an SF/CSF/NX Series Unit. Note that you cannot send data from a PV Unit to an SF/CSF/NX Series Unit. In this configuration, you must set a number of communication parameters for correct operation.

To connect a PV Unit and an SF/CSF/NX Series Unit

1. Make sure that the power of both units is turned off.
2. Set the PV Unit onto its cradle.
- Gently but firmly press down on the PV Unit to ensure that it is inserted into the cradle as far as it will go.
3. Open the cover of the data communications jack of the SF/CSF/NX Series Unit, and connect an optional SB-90 3-9 pin cable.

4. Use an optional SB-90 9-9 pin connector to connect the PV Unit cradle to the other unit's cable.

PV Unit   SF/CSF/NX Series Unit

Cradle

SB-90 3-9 pin cable

SB-90 9-9 pin connector
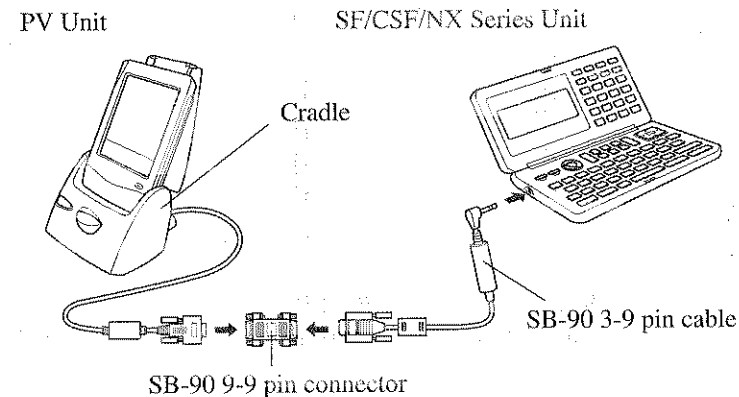
To make communication parameter settings

1. After connecting the two units, turn on the PV Unit.
2. Display the list view in a mode whose data can be received with this setup.
- This configuration supports receipt of Contacts, Memo, Schedule and To Do data.
- REMINDER 1, REMINDER 2, EXPENSE, CALENDAR, SKETCH, and FREE FILE data cannot be received.

3. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Data communication**.


```
Data communication
Model
@ Pocket Viewer
O BUSINESS NAVIGATOR
O SF/CSF/NX

@ Send
O Receive
O Set up parameters

                        [Set] [Esc]
```
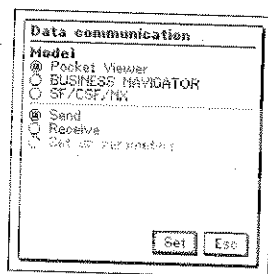
4. Tap the button next to **SF/CSF/NX**.
5. Press the button next to **Set up parameters** and then tap **Set**.


```
Set up parameters
Parity
O Even  O Odd  @ None
Bit length
@ 7    O 8
BPS
O 4800  @ 9600

                        [Set] [Esc]
```
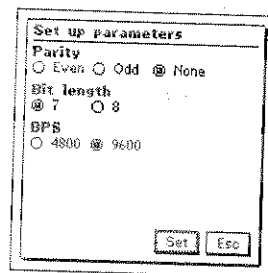
6. Tap the buttons under **Parity**, **Bit length**, and **BPS** to make the settings you want.
   - Note that the settings you make here must match those of the connected SF/CSF/NX Series Unit. Otherwise, proper data communication will be impossible.

7. After making all the settings you want, press **Set** to register them, and return to the screen in step 4, above.
   - Now you can continue with the following data receive procedure.

To receive data from an SF/CSF/NX Series Unit

1. After connecting the two units, turn on the PV Unit.
2. Display the list view in a mode whose data can be received with this setup.
   - This configuration supports receipt of Contacts, Memo, Schedule and To Do data.
   - REMINDER 1, REMINDER 2, EXPENSE, CALENDAR, SKETCH, and FREE FILE data cannot be received.

3. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Data communication**.


```
Data communication
Model
@ Pocket Viewer
O BUSINESS NAVIGATOR
O SF/CSF/NX

@ Send
O Receive
O Set up parameters

                        [Set] [Esc]
```
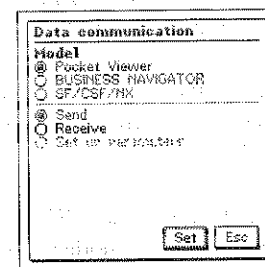
4. Tap the button next to **SF/CSF/NX**.
   - At this time you could perform steps 5 through 7 under "To make communication parameter settings" above to make communication set up parameter settings if you want.

5. Tap **Set**.
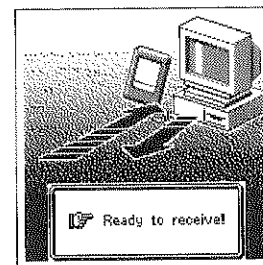
6. Perform the required operations on the SF/CSF/NX Series Unit to send data. See the manual that comes with the unit you are using for details.

Notes

- Data communication can be interrupted at any time by tapping **Esc**. This causes the message **Stopped!** to appear on the display of the PV Unit.
- The message **Communication error!** appears on the display of the PV Unit whenever data communication is interrupted due to cable disconnection, line noise, or other abnormal condition.
- If the secret memory area of the PV Unit is accessed when you receive data, the data is stored in the secret memory area, regardless of the memory area where it was stored in the sending unit.
- Data cannot be received from the following CASIO units: SF-A Series, SF-5580, 5780, 5980, 5580E, 5780E, 5980E, 5590SY, 5790SY, 5990SY, 5590SYE, 5790SYE, 5990SYE, 6500SY, 6700SY, 6900SY, 7100SY, 7200SY.
- REMINDER1, REMINDER2, EXPENSE, CALENDAR, and SPREADSHEET data cannot be received from an SF, CSF, or NX Unit.
- NX Unit PERSONAL, FAMILY, TIMETABLE, and GOLF mode data cannot be received.
- Data from SKETCH, FREE FILE, and other SF, CSF, and NX Unit modes for which there is no equivalent PV modes cannot be received.
- Data from ILLUSTRATION, P.O. BOX, TELEX NUMBER, and other SF, CSF, and NX Unit entries for which there is no equivalent PV entries cannot be received.
- All data is received in monotone, without any color attributes.
- In the case of SF Unit data that is mark protected against deletion, the mark protection is ignored when received by the PV Unit.

The PV Unit comes with two built-in games for your enjoyment. The games are named Game-1 and Game-2.

Entering the Game Mode and Selecting a Game

1. Tap the **Menu** icon to display the Mode Menu, and then tap **Game**.
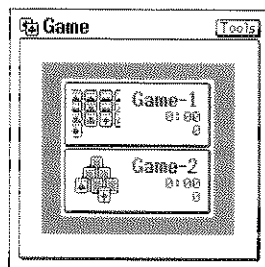
Game selection screen

2. Tap **Game-1** or **Game-2**.

Game-1
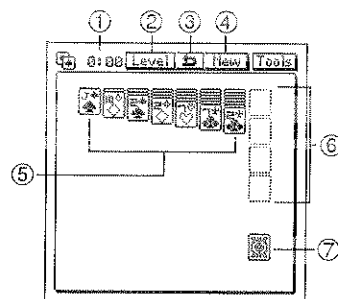
① Time
② Level button
③ Undo button
④ New button
⑤ Piles
⑥ Stacks
⑦ Deck

How to play

- Alternate the cards in the piles by piling cards in descending order, alternating black and red.
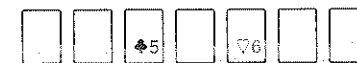
Place the black 5 on top of the red 6.

- Tap the next face down card in a pile to turn it up when you move the face up cards over to a different pile.
- You can move an entire pile of cards onto another pile, as long as the first (top) card of the pile being moved is one less and the opposite color of the last (bottom) card of the pile being moved to.
- If a pile location becomes empty when you move a pile, you can place any king or pile that starts with a king into the empty location.
- After making all the plays that are available in the piles, tap the deck to turn up every third card, and place the card that is turned up onto the piles in accordance with the rules described above, if possible.
- The symbol ◯ appears in place of the deck when there are no more cards in the deck. Tap the deck again to start turning up the deck from the beginning again. ◉ means the game is over.
- Any time an ace turns up, place it into one of the stacks at the side of the screen. There are four stacks, one each for hearts, clubs, diamonds, and spades.
- Once you start a stack with an ace, continue stacking cards in sequence: A, 2, 3, 4 .... J, Q, K.
- The game is over when all of the cards into their respective stacks (you win) or when there are no more plays left before all the cards are stacked (you lose).

To move a card or stack of cards

Drag the cards to move them on the display.

Game Levels

Beginner: Tapping a card causes the applicable destination to become highlighted, showing you where it should go.

Intermediate: No indication of where cards should go

Advanced: Undo up to two steps only.

■ Game-2
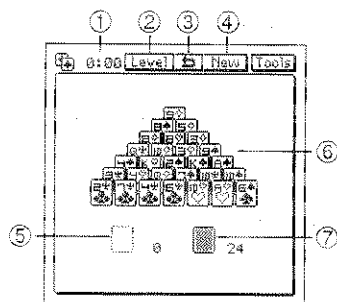
① Time
② Level button
③ Undo button
④ New button
⑤ Up deck
⑥ Pile
⑦ Down deck

How to play

- Remove any two cards whose sum equals 13 from the bottom of the pile. A card at the bottom of the pile is one that does not have any cards on top of it.
- A king equals 13 by itself, and can be removed without removing any other card with it.

Tap the king to remove it. — Tap 5 and 8 to remove them (5 + 8 = 13).
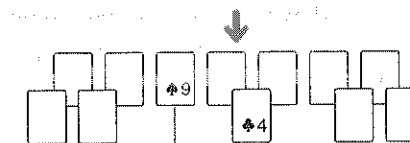
There are no cards on top of the 9, so it can be removed with the 4 to make 13.

- After making all the plays that are available at the bottom of the pile, tap the down deck to turn up the next card on top of the down deck. The card that is turned up can be tapped in combination with a card at the bottom of the pile to equal 13.
- After making all the plays that are available at the bottom of the pile and with the upturned card on the down deck, tap the upturned card and then tap on the up deck area to move the upturned card there. Next, tap the down deck to turn up the next card. Now you have three places with cards you can combine to total 13: the bottom of the pile, the upturned card on top of the down deck, and the card on the up deck.

- Repeat the above steps until you move the last card from the down deck to the up deck. When you do, there will be either a ○ or ● in place of the down deck. ○ means you can continue playing, so tap the ○ to move the cards from the up deck back to the down deck. ● means the game is over.
- The game is over when all of the cards are gone (you win) or when there are no more plays left before all the cards are gone (you lose).

Game Levels

Beginner: Tapping a card causes the another card that equals 13 in combination with the card you tap to become highlighted. This level also lets you turn the up deck over three times (so it becomes a new down deck) after you run out of cards in the down deck.

Advanced: No indication of which cards equal 13. At this level, get only one pass through the deck. You cannot turn the up deck over.

General Game Procedures

The following procedures can be used for either Game-1 or Game-2.

To change the level

Tap **Level** to open a menu of levels, and tap the one you want.
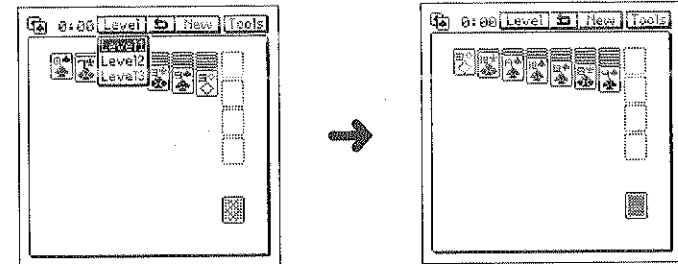
To undo the last play

Tapping 🔁 undoes the last play. You can undo only the latest play you made.

This chapter describes general operations you can perform in various modes.

12

Scroll Bars

① Page scroll buttons
② Line scroll buttons
③ Scroll bar
④ Scroll handle

Item	Description
▲ ▼ (page scroll buttons)	• Tap to scroll up and down, a page at a time. (Tapping these buttons while the Weekly Scheduler screen is on the display, for example, scrolls a week at a time.) • These buttons are dimmed if there is no page of data to scroll to.
▲ ▼ (line scroll)	• Tap to scroll up and down, a line at a time. • These buttons are dimmed if there is no line of data to scroll to.
□ (scroll handle)	• Drag up and down to scroll the screen. • The size of the scroll button changes in accordance with the amount of data above and below the current screen. If there is no data above or below, the scroll buttons are dimmed.
Scroll bar	• Tap the gray area to jump to the next page above or below the current page.

• The PV Unit scroll bars operate similarly to the scroll bars of many popular personal computer applications.
• The scroll handle location indicates approximately how much data is above and below the data on the screen. If the scroll handle is located in the middle of the scroll bar, for example, it means that there is about the same amount of data above and below.

Action Control Scrolling

When you are using the **Action** control to recall items in a list screen, the screen scrolls automatically after you move the highlighting to the top or bottom of the display. In the case of the data screen, the **Action** control scrolls between data items whenever it is rotated.

Menu Bar

The PV Unit's menu bar gives you access to a number of useful commands for data editing and other operations.

To display the menu bar

Tap the **Menu Bar** icon at the beneath of the PV Unit screen to display the menu bar.

To execute a menu bar command

1. Display the menu bar.
2. Tap the name of the menu that contains the command you want to execute.
3. Tap the command you want to execute, or use the **Action** control to move the highlighting to the command you want and then press the **Action** control to execute the command.

Data Input and Editing

Use the procedures in this section to input and edit data. These procedures apply for all input and editing screens.

Moving Between Entries (Fields)

When inputting and editing data, you can move between entries (fields) either by tapping on the entry you want with the stylus, or by tapping the on-screen **NEXT** button to advance to the next sequential entry. Note that the **NEXT** button may not appear on some input or editing screen.

On-screen Keyboards

This section describes the keyboards that appear when data input is required.

Note
* To close a keyboard screen without registering the data you input with it, tap **Esc**.

Text Keyboard
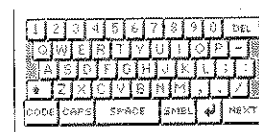
Key	Description
DEL	Deletes the character at the current cursor location.
⬆	Shifts letter keys between upper-case and lower-case for the input of one character only.
CODE	Shifts to the Code Keyboard.
CAPS	Shift-locks letter keys between upper-case and lower-case.
SMBL	Shifts to the Symbol Keyboard.
↵	Inputs a carriage return (newline) operation.
NEXT	Advances to the next entry (field).

Symbol Keyboard
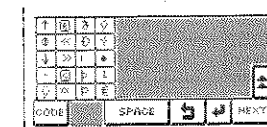
Key	Description
⬇ ⬆	Displays other symbols.
↰	Returns to the Text Keyboard.

Code Keyboard
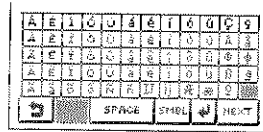
Date Keyboard
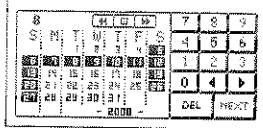
- Specify a date by tapping it in the calendar, or by tapping the number keys.

Key	Description
(◀◀) (▶▶)	Scrolls the month shown on the input screen.
(回)	Jumps to the month that contains today's date as kept by the main clock.
(◀) (▶)	Moves the input point between the month, day, and year.
DEL	Deletes the character at the current cursor location.
NEXT	Advances to the next field.

Calculator Keyboard
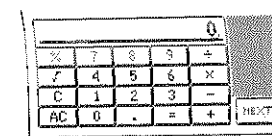
- See "Using the Calculator Screen" on page 115 for details on mathematical operations.

Time Setting Screens

There are two basic time setting screens that you can switch between while inputting time data: a *dial type screen* and a *time bar type screen*.
The dial type screen is best for setting a single time, while the bar type screen lets you specify a time period (start time and end time) quickly and easily.

Dial Type Time Setting Screens
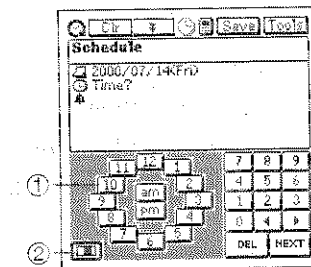
① Hour input dial
② Time bar screen button
③ Keypad
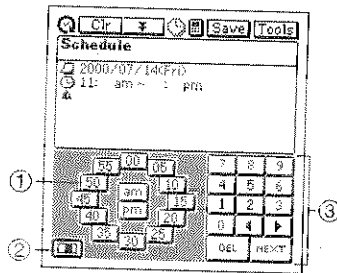
① Minute input dial
② Time bar screen button
③ Keypad

- The hour input dial appears when the cursor is located within hour digits, while the minute input dial appears when the cursor is within minutes digits.
- Specify a time by tapping the hour or minutes in the input dial. You can also input individual digits on the keypad.
- The time format you should use for input should match the format of the system setting you selected under "Setting the Date, Time, Calendar, and Keyboard Formats" on page 169.
- If you are using the 12-hour time format, be sure to tap the am or pm button to specify "am" or "pm".

Key	Description
Dial	Tap on a button to specify the hour or minutes.
[▦]	Changes to the time bar type time setting screen.
[am] [pm]	Tap to specify "am" or "pm" for a 12-hour format time.
[DEL]	Deletes the character at the current cursor location.
[NEXT]	Advances to the next field.

Bar Type Time Setting Screen
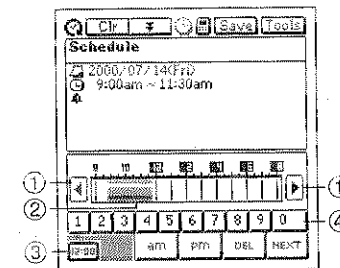
① Scroll buttons
② Selected time period
③ Dial type screen button
④ Number buttons

- Specify a time period by dragging the stylus across the time period you want. You can change the time period in 30-minute units using this method.
- Tapping the time bar inputs corresponding time at the current cursor position (either in the start time or end time area).
- Tap the scroll buttons to scroll the available hours left and right.
- The time format you should use for input should match the format of the system setting you selected under "Setting the Date, Time, Calendar, and Keyboard Formats" on page 169.
- Use the number buttons to input individual digits.
- If you are using the 12-hour time format, be sure to tap the am or pm button to specify "am" or "pm".

Key	Description
[12:00]	Changes to the dial type time setting screen.
[am] [pm]	Tap to specify "am" or "pm" for a 12-hour format time.
[DEL]	Deletes the character at the current cursor location.
[NEXT]	Advances to the next field.

Selecting a Range of Text by Dragging

You can select a range of text on the screen with a technique called *dragging*.

To select a range of text by dragging

1. Display the range of text you want to select.
2. Press the stylus against the screen at the beginning of the range of text you want to select.
3. Keeping the stylus against the screen, drag it to the end of the range you want to select.
    *   If the end of the text is not on the screen, drag down to the bottom of the display and the screen will start to scroll.
    *   If you make a mistake and drag too far, keep the stylus on the screen as you move back. This will reduce the size of the selected range of text.
4. Remove the stylus from the screen.
    *   The selected text is highlighted on the screen.
    *   To deselect (unhighlight) text, tap anywhere outside of the highlighted area.

Cut, Copy, Paste

The cut, copy, and paste functions of the PV Unit operate just as they do on a personal computer.

To cut or copy data

1. Drag the stylus across characters on the display that you want to cut or copy.
    *   The text you drag across will become highlighted on the display.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Cut** or **Edit – Copy**.
    *   **Edit – Cut** deletes the selected text and places it onto a clipboard.
    *   **Edit – Copy** puts a copy of the text onto the clipboard, while leaving the original where it is.

To paste data at a location

1. After cutting or copying data, tap the location on an input or editing screen where you want to paste the data.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Paste**.
    *   The data on the clipboard is inserted at the current input position on the screen.

To paste data and replace existing data

1. After cutting or copying data, select the text that you want to replace with the data on the clipboard by dragging the stylus across it.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Paste**.
    *   The data on the clipboard replaces the selected data on the screen.

▮ Closing a Screen

You can always close a screen by tapping the Esc button.
In addition, some screens have a close button (☒). To close such a screen, simply tap the close button with the stylus.

Using the Quick Find Feature

The Quick Find feature automatically remembers a list of words you have recently input, and displays a list of candidates when it senses you are inputting one of the words again. You can tap a word in the list of candidates to input it, without having to type all the characters.

- The Quick Find feature is enabled when inputting Schedule, To Do, or Reminder description text.
- Quick Find memory can hold approximately 30 words, when all are 32 characters long. The number of words that can be stored is greater when each word contains fewer characters.
- Quick Find memory comes with 30 default terms. These default terms are restored into Quick Find memory whenever you reset the PV Unit (page 182).
- When memory is full oldest words are deleted automatically as new words are added to the memory.

To input a word with the Quick Find feature

1. As you are typing in text in an input screen, the Quick Find input list appears after you input two characters, if there are words in Quick Find memory that start with the characters you input.
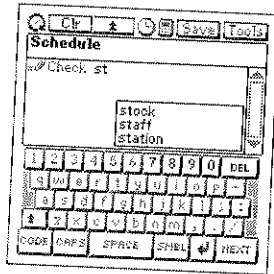
2. Tap on one of the words in the Quick Find list to complete your input, or continue typing in text on the keyboard.
   - Tapping a word inserts the remaining letters of the word you tap in the Quick Find list.

3. If you type in more letters, the Quick Find list contents change accordingly.

Editing Data Items

Use the following procedure to edit data items. This general procedure applies in all modes.

To edit a data item

1. Select the data item you want to edit.
   - You can select an item by displaying its data screen, or by tapping the item on a list screen, calendar, etc.

2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Item edit** to display the data editing screen.
3. Make any changes in the data you want.
4. After you are finished, tap the **Save** button to save the new data.

Creating a Copy of a Data Item

You can use the following procedure to create a copy of a data item in the Scheduler, Contacts, Memo, or Expense Manager Mode.

To create a copy of a data item

1. Select the data item you want to copy.
   - You can select an item by displaying its data screen, or by tapping the item on a list screen, calendar, etc.
2. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Item copy** to display a new data input screen that contains the data of the item you selected in step 1.
3. Make any changes in the data you want.
4. After you are finished, tap the **Save** button to save the copied data as a new data item.

Deleting Data

The following describes the general procedure for deleting data.

To delete data

1. Enter the mode that contains the data you want to delete.
2. If you want to delete a particular data item, select the item.
3. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Delete** to display the data delete screen.
   - Note that the contents of the data delete screen differ from mode to mode.

4. On the data delete screen, tap the delete operation you want to perform.
   - See the "Delete Operations Table" below for details on available delete operations in each mode.
   - Some modes allow delete operation that delete data within a range of dates. Selecting such an option displays a screen for input of a start date and end date. Specify the dates you want and then tap the **Exe** button before advancing to the next step.

5. On the confirmation message that appears, tap **Yes** to perform the delete operation you selected or **No** to close the dialog box without doing anything.

Delete Operations Table

Delete Operation	Description
Single data item	Deletes the data item that is selected when **Edit – Delete** is tapped.
Schedule data items	Deletes all Schedule data.
Done data items	Deletes all done To Do data items.
To Do data items	Deletes all To Do data.
Reminder data items	Deletes all Reminder data.
Specified data items	Deletes all Scheduler Mode data up to a specific date. Tapping this option displays a screen that you must use to specify the date up to which you want to delete Scheduler Mode data.
All Scheduler data items	Deletes all Scheduler data.
All data items	Deletes all data items in the mode you are in when you tap **Edit – Delete**.
Category data items	Deletes all data items in the selected category when **Edit – Delete** is tapped.

Searching for Data

You can use either initial character search or all search to look for specific data in the Scheduler (Schedule, To Do, Reminder), Contacts, and Memo Modes. Note that both search operations check the data only in specific entries (fields) of each data item.

The following table shows which entries (fields) are checked in each mode for each type of search.

Mode	Fields Checked	
	Initial Character Search	All Search
Schedule	Description	Description
To Do	Description	Description
Reminder	Description	Description
Contacts - Personal	Name	All
Contacts - Business	Company	All
Contacts - Untitled	Free 1	All
Contacts - All	Name (Free 1)	All
Memo	Memo contents	Memo contents

Initial Character Search

This search method checks the initial characters of a specific field in each mode to see if any items match characters you specify.

All Search

With all search, the PV Unit looks for any occurrences of the text you specify, regardless of its location in the searched field.

To perform a search

1. Enter the mode whose data you want to search.
2. If the mode you are in uses categories, select the category whose data you want to search.
   - Note that a search checks the data only in the category you are in.
3. Tap the **Menu Bar** icon to display the menu bar, and then tap **Edit – Search**.
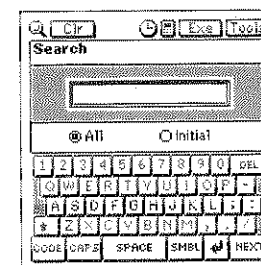
4. Tap **Initial** to specify initial character search or **All** to specify all search.
5. Input up to 12 search characters.
6. Tap **Exe** to start the search.
   - Searches are not case-sensitive. This means that upper-case and lower-case letters are not taken into consideration.

Search Results

A search operation produces a list screen of all items that match the search characters you specify.
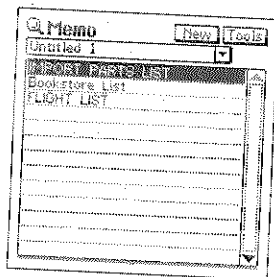
- To view the data screen of an item, tap the item to highlight it and then tap it again.
- When you are through using the data screen, tap Esc to close it.

The **System** menu provides you with a number of items that you can use to set up the unit to suit your particular needs.

Note that the System menu is available on the menu bar while the Mode Menu is on the display.

Setting the Date, Time, and Auto Power Off Interval

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Set date/time**.
   * You can also display the date/time setting screen by tapping the clock on the pop up tool screen (page 112).
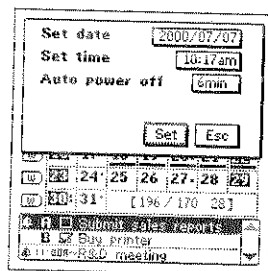
2. Tap the date next to **Set date**. This causes a date keyboard to appear.
3. Use the date keyboard to input the date you want to set, and then tap **NEXT**.
   * You can specify a date within the range of January 1, 1901 to December 31, 2099.
4. After setting the date, tap the time next to **Set time**. This causes a time keyboard to appear.
5. Use the time keyboard to input the time you want to set, and then tap **NEXT**.
6. After setting the time, tap the value next to **Auto power off**.
   * Each tap of the value changes it in the cycle: 1 → 3 → 6 → 1, etc.
   * The value you set specifies how many minutes the unit allows to pass without any operation being performed. After the specified number of minutes, power is turned off automatically.

7. Tap **Set** to register your settings.

Turning Sound On and Off

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Sound**.
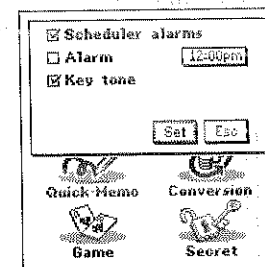
2. Tap a check box to toggle the corresponding item's sound on (checked) and off (unchecked).
   * **Scheduler alarms** turns all Scheduler Mode alarms on and off.
   * **Alarm** turns the daily alarm on and off.
   * **Key tone** turns the key input confirmation tone on and off.
   * See "Setting a Daily Alarm Time" on page 168 for details about setting the alarm time.

3. Tap **Set** to register your settings.

Setting a Daily Alarm Time

1. While the sound on/off setting screen is on the display in the above procedure, tap on the time to the right of the **Alarm** item.
* You can also display the alarm setting screen by tapping the alarm indicator on the pop up tool screen (page 112) or the clock screen (page 113).
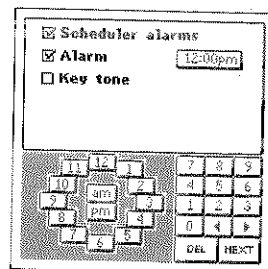
2. Input the time you want to set, and then tap **NEXT**.
* While the Daily Alarm is turned on, a tone sounds for about 20 seconds at the preset time each day.
* You can stop a sounding alarm by tapping anywhere on the screen.

Setting the Date, Time, Calendar, and Keyboard Formats

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Format**.
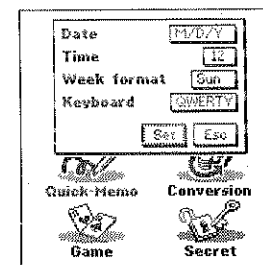
2. Tap the date format next to **Date**.
* Each tap of the date format changes it in the cycle:
  M/D/Y → D/M/Y → Y/M/D → M/D/Y, etc.

3. After setting the date format, tap the time format next to **Time**.
* Each tap of the time format toggles it between 12 and 24.

4. After setting the time format, tap the day of the week next to **Week format**.
* Each tap of the day of the week toggles it between Sun and Mon.

5. After setting the calendar format, tap the keyboard format next to **Keyboard**.
* Each tap of the keyboard format changes it in the cycle:
  QWERTY → AZERTY → QWERTZ → QWERTY, etc.

6. Tap **Set** to register your settings.

Setting the System Language (PV-250X/PV-450X only)

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Language**.

```
O Deutsch
@ English
O Español
O Français
O Italiano
              [ Set ] [ Esc ]
   Quick-Memo    Conversion
      Game         Secret
```
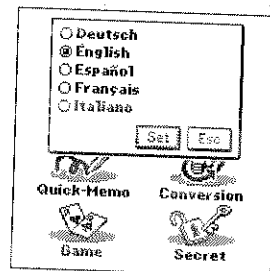
2. Tap the button next to the language you want to select as the system language.
3. Tap **Set** to register your setting.
• All on-screen text messages appear in the language you set as the system language.

Note

• The system language you set also affects the keyboard format (page 179) and the code keyboard contents (page 152).

Adjusting Display Contrast

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Contrast**.

```
         Contrast
   Lighter       Darker
   [◄ ▓▓▓▓▓▓▓▓▓ ►]
   [ initial ]    [ OK ]
   Quick-Memo    Conversion
      Game         Secret
```
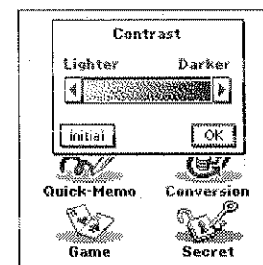
2. Tap ◄ to make the figures on the screen lighter, or ► to make them darker.
3. To return to the initial default contrast setting, tap **Initial**.
4. After the setting is the way you want it, tap **OK**.

Calibrating the Touch Screen

Use the following procedure to calibrate the touch screen after initializing the unit, or if you feel that the function performed when your tap the screen does not match the button or command you tapped.

To calibrate the touch screen

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Touch Panel Alignment**.
2. Tap the center of each of the four cross marks as they appear on the screen.

Checking Memory Capacity

Use the following procedures when you want to check current memory capacity.

To check memory capacity

1. Tap the **Menu Bar** icon to display the menu bar, and then tap System – Capacity.

Memory used ────── Memory still available
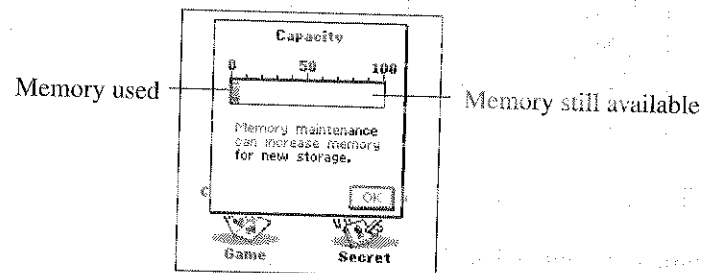
2. Tap **OK** to clear the memory capacity screen.

Memory Management

The memory of your PV Unit is designed to make your normal data input and recall operations as quick and efficient as possible. After repeated storage and deletion of data, however, you may find that you are unable to store new data, even after you have deleted some data from memory. When this happens, you need to perform the following "memory management" procedure, which cleans up and rearranges unused memory to make it available for storage of more data.

Note
- When you need to perform memory management depends entirely on how often you delete data from memory and store new data. The more you delete and store, the sooner you will need to perform the memory management procedure.

To perform memory management

1. Tap the **Menu Bar** icon to display the menu bar, and then tap **System – Memory management**.
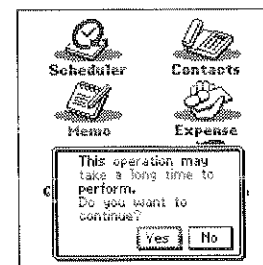
2. In response to the message that appears, tap **Yes** to start memory management or **No** to close the dialog box without doing anything.
- The message shown below appears after you tap **Yes** to start memory management.
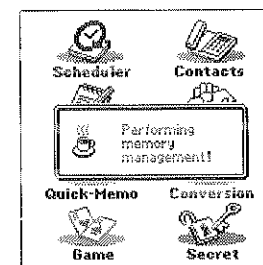
- You can tap **Esc** at any time to interrupt the memory management procedure.

This section contains technical information about the PV Unit.

14

Date Formats

The following describes the date formats that can be set for the system (page 169).

Format	Description
M/D/Y	Month/Day/Year. Example: Jan/31/2000
D/M/Y	Day/Month/Year. Example: 31/Jan/2000
Y/M/D	Year/Month/Day. Example: 2000/1/31

Time Formats

The following describes the time formats that can be set for the system (page 169).

Format	Description
12-hour	Represents time in two blocks, from midnight to 11:59am, and from noon to 11:59pm.
24-hour	Represents time as a single block, from 0:00 to 23:59. This format is often referred to as "military time."

Tool Bars

The PV Unit uses standard tool bars for data input and display. The following shows typical examples of these toolbars, and describes the items that can appear in each.

Data Input Tool Bar

Mode icon ─ Q Clr ± ⏰ 🖩 Save Tools

Button	Description
Mode icon	Indicates the mode you are currently in.
Clr	Clears all characters in the entry (field) where the cursor is located. In the Contacts Mode, pressing this button clears the data from all the input fields for the data item (record) you are inputting.
⏰	Pastes the current date and time as being kept by the main clock at the current cursor location.
🖩	Displays a calculator.
▼	Advances to the next screen.
▲	Returns to the previous screen.
Save	Saves input data and closes the input screen.
List	In the Quick-Memo Mode, tapping this button changes to the list view.
Tools	Displays the pop up tool screen.

- The above table shows all the buttons that can possibly appear in a data input tool bar. Depending on mode and other factors, some of the tools shown above may not be included in a data input tool bar.

Data Display Tool Bar
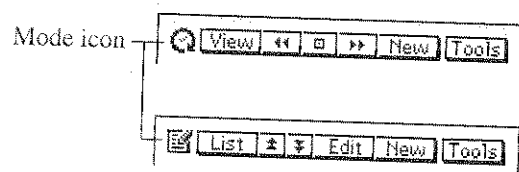
Mode icon —

Button	Description
Mode icon	Indicates the mode you are currently in.
[View]	Displays a menu of other views that can be used to display data.
[□]	In the Scheduler and Expense Manager modes, jumps to today's date as kept by the PV Unit's built-in clock.
[⤓][▶][▶▶]	Advances to the next item.
[⤒][◀][◀◀]	Returns to the previous item.
[New]	Displays the new data input screen.
[List]	Returns to the list screen from a Contacts, Memo, Expense Manager, and Quick-Memo mode data screen.
[Edit]	Changes to the data editing screen for the current data item.
[Tools]	Displays the pop up tool screen.

- The above table shows all the buttons that can possibly appear in a data display tool bar. Depending on mode and other factors, some of the tools shown above may not be included in a data display tool bar.

▌Keyboard Formats

The PV Unit provides you with a selection of keyboard formats.

QWERTY
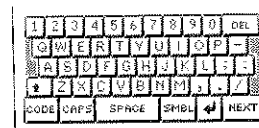
- This format is automatically selected when English, Spanish, or Italian is set as the system language.

AZERTY
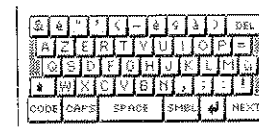
- This format is automatically selected when French is set as the system language.

QWERTZ
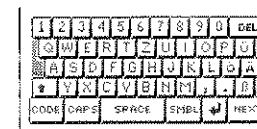
- This format is automatically selected when German is set as the system language.

Scheduler Mode Alarms

- When you set an alarm time for a Schedule, To Do, or Reminder item, an alarm sounds for about 20 seconds when the alarm time is reached on the date that is also specified for the data item.
- Alarms may fail to sound when battery power is low.
- If the alarm time is reached for a data item stored in the secret memory area, the message **Check the secret memory area!** appears on the display. In this case you must enter the secret memory area to see what the alarm is for.
- Alarms are deleted automatically after the Scheduler alarm time is passed. You cannot set an alarm time for a date and time that are already passed.
- You cannot schedule two alarms for the same time on the same day.
- Up to 100 Scheduler alarm times can be set at one time.

Input Limits

The following table shows the maximum number of characters that can be input into various fields.

Mode	Entry (Field)	Maximum Number of Characters
Schedule	Description	2,046
To Do	Description	2,046
	Category	14
Reminder	Description	2,046
Contacts	–	2,036
	Category	14
	Item	12
Memo	Description	2,048
Expense Manager	Amount	8
	Payment Type	14
	Expense Type	14
	Description	2,008
Search	–	12
Password	–	12
Clipboard	–	2,048

Resetting the PV Unit

Warning!
The following procedure erases all data stored in the memory of the PV Unit. Perform this operation only when you want to delete all data and initialize the settings of the PV Unit.
Remember - you should always keep copies of important data by writing it down, or by transferring it to a personal computer.

To reset the PV Unit

1. Open the cover and touch the screen with the stylus to turn on power.
2. Use the stylus to press the **RESET** button on the back of the PV Unit.

RESET button

Use the stylus to touch the center of each of the crosses on the screen.
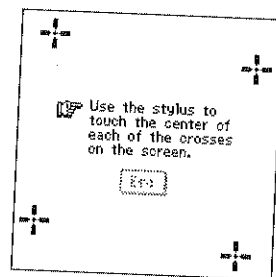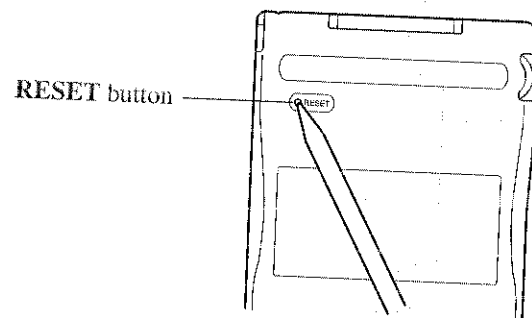
• If the above does not appear on the display when you press the **RESET** button, slide the battery switch to the REPLACE BATTERIES position and remove the battery compartment cover. Use the stylus to press the **P** button and then replace the battery compartment cover. Slide the battery switch back to the NORMAL OPERATION position and then press the **RESET** button.

3. Tap the center of each of the four cross marks as they appear on the screen.
• The contrast adjustment screen appears next.

4. Tap ◀ or ▶ to adjust the contrast of the display, and then tap **OK**.
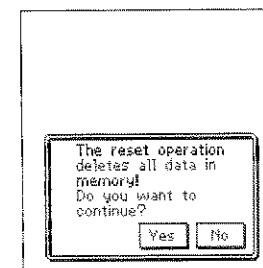
The reset operation deletes all data in memory! Do you want to continue?
Yes   No

5. In response to the message that appears, tap **Yes** to reset the PV Unit and clear all memory contents, or **No** to abort the reset procedure without doing anything.
6. If you tapped **Yes** in the above step, a second confirmation message appears. Tap **Yes** to reset the PV Unit and clear all memory contents, or **No** to abort the reset procedure without doing anything.
• Tapping **Yes** in the above step starts the actual reset procedure.

7. What happens after the reset procedure is complete depends on what model you are using.
• On the PV-200A or PV-400A, the pop up tool screen appears. Continue from step 9.
• On the PV-250X and PV-450X, the system language selection screen appears. Continue from step 8.

8. Tap the button next to the language you want to select as the system language, and then tap **Set** to change to the pop up tool screen.

9. Check the time setting and correct it if necessary (page 166).
• Following are the initial settings of the PV Unit after you perform the RESET operation.

Main clock: Clock 1
                London
                Jan/1/2000
                12:00 am
                12-hour format
Clock 2:   New York
Daily Alarm: 12:00 pm
Sound: Daily Alarm off, all others on
Character input: CAPS off

■ Euro Conversion Rate Presets

Country	Currency Code	Rate (for 1 euro)	Decimal Places
Germany	DEM	1.95583	2
France	FRF	6.55957	2
Italy	ITL	1936.27	0
Spain	ESP	166.386	0
Netherlands	NLG	2.20371	2
Belgium	BEF	40.3399	0
Portugal	PTE	200.482	0
Austria	ATS	13.7603	2
Finland	FIM	5.94573	2
Ireland	IEP	0.787564	2
Luxembourg	LUF	40.3399	0

■ Storage Capacity

The memory capacity of the PV-400A/PV-450X is 4-Mbyte (2-Mbyte for the PV-200A/PV-250X). The following shows the number of items that can be stored.

Scheduler

Approximately 32,000 items (23,420 for the PV-200A/PV-250X) with 20-character description.

Approximately 27,320 items (11,710 for the PV-200A/PV-250X) with 60-character description.

Contacts

Approximately 32,000 items (23,420 for the PV-200A/PV-250X), under the following conditions.
        8-character name
        10-character home phone number
        10-character home fax number
        20-character home address

Approximately 18,210 items (7,800 for the PV-200A/PV-250X), under the following conditions.
        8-character name
        10-character business phone number
        10-character business fax number
        40-character business address
        20-character company name
        20-character department
        20-character position

Memo

Approximately 3,210 items (1,370 for the PV-200A/PV-250X), 1,024-character memos.

Expense Manager

Approximately 27,320 items (11,710 for the PV-200A/PV-250X), under the following conditions.
        10-character description
        Expense type and payment type set

Quick-Memo

Approximately 1,300 items (550 for the PV-200A/PV-250X).

Auto Sort Sequence

The following table shows the sequence used for alphabetical data sorts.

1	(space)	34	A	67	b	100	Ú	133	Ã	166	²
2	!	35	B	68	c	101	À	134	Õ	167	³
3	"	36	C	69	d	102	È	135	Ñ	168	µ
4	#	37	D	70	e	103	Ì	136	IJ	169	½
5	$	38	E	71	f	104	Ò	137	Æ	170	¼
6	%	39	F	72	g	105	Ù	138	Ç	171	¾
7	&	40	G	73	h	106	Â	139	Å	172	ƒ
8	'	41	H	74	i	107	Ê	140	Φ	173		
9	(	42	I	75	j	108	Î	141	ß	174	Fr
10	)	43	J	76	k	109	Ô	142	¶	175	←
11	*	44	K	77	l	110	Û	143	¢	176	→
12	+	45	L	78	m	111	¡	144	ä	177	√
13	,	46	M	79	n	112	á	145	ë	178	§
14	—	47	N	80	o	113	é	146	ï	179	↑
15	.	48	O	81	p	114	í	147	ö	180	↕
16	/	49	P	82	q	115	ó	148	ü	181	↓
17	0	50	Q	83	r	116	ú	149	ã	182	ÿ
18	1	51	R	84	s	117	à	150	õ	183	®
19	2	52	S	85	t	118	è	151	ñ	184	«
20	3	53	T	86	u	119	ì	152	ij	185	»
21	4	54	U	87	v	120	ò	153	æ	186	©
22	5	55	V	88	w	121	ù	154	ç	187	¤
23	6	56	W	89	x	122	â	155	å	188	∂
24	7	57	X	90	y	123	ê	156	φ	189	Ð
25	8	58	Y	91	z	124	î	157	£	190	ı
26	9	59	Z	92	{	125	ô	158	¥	191	Þ
27	:	60	[	93	|	126	û	159	Ω	192	þ
28	;	61	\	94	}	127	¿	160	ª	193	ý
29	<	62	]	95	~	128	Ä	161	º	194	Ý
30	=	63	^	96	Á	129	Ë	162	×	195	·
31	>	64	_	97	É	130	Ï	163	÷	196	¹
32	?	65	`	98	Í	131	Ö	164	±	197	
33	@	66	a	99	Ó	132	Ü	165	°	198	€

Message Table

100 alarms are already set!	
Cause: The maximum allowable limit of 100 alarms are already set.	**Action**: Wait until some of the existing alarms are used, or delete alarms you do not need to make room for new ones.

All dates you select must be within the same year.	
Cause: You are trying to highlight dates for a period that spans multiple years.	**Action**: The range of dates when specifying highlights must be within one single year. Change your date range specification so it is within the same year.

Batteries are getting weak! Replace them as instructed in the User's Guide.	
Cause: Battery power is getting weak.	**Action**: Replace batteries as explained on page 16 of this User's Guide.

Check the secret memory area!	
Cause: An alarm time has been reached for secret memory area data.	**Action**: Enter the secret memory area to view details about the alarm.

Check your home time setting and correct it if necessary!	
Cause: This message appears after an operation that can affect your time settings.	**Action**: Since all alarms and other timekeeping related operations are based on your time setting, be sure to check it and make corrections as necessary whenever this message appears.

Communication error!	
Cause: An error occurred during data communication.	**Action**: Correct the cause of the error and try again.

Data error! Consult your User's Guide for correct procedure.	
Cause: An internal data error has corrupted memory data.	**Action**: See page 11 of this User's Guide for the correct procedure.

Data error! Do you want to view data before resetting?	
Cause: A data error requires that you perform the RESET operation, which deletes all data stored in memory and returns all settings to their initial defaults.	**Action**: Tap **Yes** to close the dialog box. You can then recall data stored in memory to make written copies before it is cleared by the RESET operation. Tap **No** to go immediately into to the RESET operation, which will delete all data stored in memory.

Data item not found!	
Cause: None of the data in memory matches the characters you specified for a search operation.	**Action**: Check the characters you specified to make sure you did not make a mistake, or try searching for different characters.

Input all required data.	
Cause: You did not input all of the minimum data required to store the data item.	**Action**: Input the minimum required entries for the mode where you are inputting new data. Check the minimum requirements and input the required data.

Make sure you are inputting the date correctly.	
Cause: You are trying to use invalid values for a date.	**Action**: Input the date correctly.

Make sure you are inputting the time correctly.	
Cause: You are inputting invalid values for a time setting.	**Action**: Input proper values for the time.

Memory is full!	
Cause: You are trying to input data or receive data while memory is already full.	**Action**: First try performing the memory management operation to see if more memory can be made available. If this message still appears, it means that memory is really full. Delete data you no longer need to make room for more data.

That alarm time is already passed!	
Cause: The time you are trying to set for an alarm is already passed.	**Action**: This is merely a warning message that appears for about one second. After that, the dialog box closes and the data is stored without the alarm.

That alarm time is already used!	
Cause: The time you are setting for an alarm is already used.	**Action**: Change the alarm time to one that is not yet used.

■ Troubleshooting

Power Supply

Problem: The PV Unit does not operate normally after batteries are replaced.

Possible Cause	Recommended Action
Problem with PV Unit operational settings	Perform the following procedure. 1. Slide the battery switch to the REPLACE BATTERIES position, and remove the battery compartment cover. 2. Use the stylus to press the **P** button inside the battery compartment. 3. Replace the battery compartment cover, and then slide the battery switch back to NORMAL OPERATION. 4. Use the stylus to press the **RESET** button on the back of the unit. See "To reset the PV Unit" for details on the reset procedure. 5. In response to the message that appears after you calibrate the touch screen and adjust the display contrast, tap **No**. • Make sure you do not tap **Yes**. Doing so deletes all data stored in memory and returns all settings to their initial defaults.
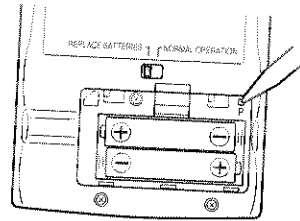
Problem: Nothing appears on the display when power is turned on.

Possible Causes	Recommended Actions
1. The battery switch on the back of the unit is set to REPLACE BATTERIES. 2. Battery power is low. 3. Display contrast is too light.	1. Slide the battery switch to NORMAL OPERATION. 2. Replace batteries (page 16). 3. Adjust display contrast (page 171).

Display Contrast

Problem: Display is totally black.

Possible Cause	Recommended Action
Display contrast is too dark.	Adjust display contrast (page 171).

Key Tone

Problem: The PV unit does not beep when you perform an operation.

Possible Cause	Recommended Action
The key tone is turned off.	Turn on the key tone (page 167).
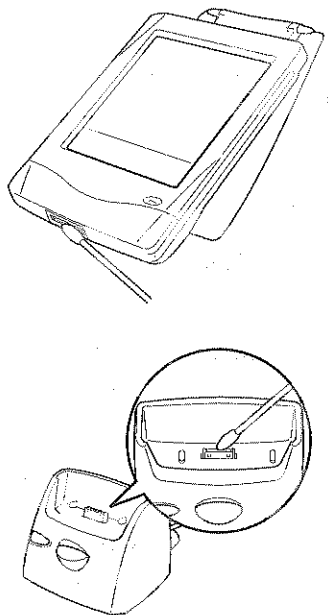
Operation

Problem: Nothing happens when you tap the screen.

Possible Causes	Recommended Actions
1. Battery power is low.	1. Replace batteries (page 16).
2. Exposure of the PV Unit to some external condition is interfering with proper operation.	2. Press the **P** button and then the **RESET** button. See procedure above.
3. The touch screen is damaged.	3. The touch screen must be replaced. Contact your nearest CASIO dealer to have the touch screen replaced. You will be charged for this replacement.

Problem: Power suddenly turns off or contrast adjustment screen suddenly appears.

Possible Cause	Recommended Action
Battery power is low.	Replace batteries (page 16).

Problem: The functions or cursor movement performed does not match the location where you tap on the screen.

Possible Cause	Recommended Action
The touch screen needs to be calibrated.	Perform the procedure under "Calibrating the Touch Screen" on page 171.

Data Communication

Problem: You are having problems performing data communication.

Possible Causes	Recommended Actions
1. Equipment is not connected correctly.	1. Carefully follow the procedures on page 122 and connect the equipment correctly.
2. Cradle contacts are dirty.	2. Clean the contacts on the bottom of the PV Unit and inside the cradle by wiping them with a cotton swab.

- If any of the above does not restore your PV Unit to normal operation, contact your nearest CASIO dealer for servicing.

Specifications

Model: PV-200A/PV-250X/PV-400A/PV-450X

Main Modes:
Scheduler (Schedule, To Do, Reminder); Contacts; Memo; Expense Manager; Currency Converter; Quick-Memo; Pop Up Tools (Clock, Calendar, Calculator); Game

Data storage:
Storage and recall of Schedule, To Do, Reminder, Contacts, Memo, Expense, Quick-Memo data; calendar display; secret memory area; editing; memory status display

Clock:
World Time; Schedule alarm; To Do alarm; Reminder alarm; Daily alarm; accuracy under normal temperatures: ±3 seconds per day

Calculations:
12-digit arithmetic calculations; arithmetic constants (+/−/×/÷); independent memory; percentages; square roots; 24-digit approximations; other mixed calculations

General:
Display: 160 × 160 dots
Memory capacity: 2MB (PV-200A/PV-250X)
4MB (PV-400A/PV-450X)
Main component: LSI

Power supply: Two AAA-size alkaline batteries (Type: LR03 (AM4))
Battery life: (Ambient Temperature: 20°C)
- Approximately 160 hours of continuous display only in the Contacts Mode
- Approximately 110 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour in the Contacts Mode
- Approximately 80 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour in the Contacts Mode, plus 3 minutes of backlight operation per hour during continuous display only period

Power consumption: 0.3W
Auto power off: Approximately 6 minutes after last key operation
Operating temperature: 0°C ~ 40°C (32°F ~ 104°F)
Dimensions:
Unfolded: 13.8H × 81.5W × 125D mm ($\frac{1}{2}$"H × $3\frac{1}{4}$"W × $4\frac{7}{8}$"D)
Folded: 15.6H × 81.5W × 128D mm ($\frac{5}{8}$"H × $3\frac{1}{4}$"W × 5"D)
Weight: Approximately 145 g (5.1 oz) including batteries

City Name List

City Name	Time Difference	City Name	Time Difference	City Name	Time Difference
Abidjan	± 0:00	Brisbane	+10:00	Frankfurt	+ 1:00
Abu Dhabi	+ 4:00	Broken Hill	+ 9:30	Freetown	± 0:00
Acapulco	− 6:00	Brussels	+ 1:00		
Accra	± 0:00	Bucharest	+ 2:00	G.M.T.	± 0:00
Addis Ababa	+ 3:00	Budapest	+ 1:00	Geneva	+ 1:00
Adelaide	+ 9:30	Buenos Aires	− 3:00	Georgetown	− 4:00
Aden	+ 3:00			Guam	+10:00
Al Manamah	+ 3:00	Cairo	+ 2:00	Guatemala City	− 6:00
Algiers	+ 1:00	Calcutta	+ 5:30		
Alice Springs	+ 9:30	Canberra	+10:00	Hamburg	+ 1:00
Amman	+ 2:00	Cape Town	+ 2:00	Hannover	+ 1:00
Amsterdam	+ 1:00	Caracas	− 4:00	Hanoi	+ 7:00
Anchorage	− 9:00	Casablanca	± 0:00	Havana	− 5:00
Andorra	+ 1:00	Cayenne	− 3:00	Helena	− 7:00
Ankara	+ 2:00	Chatham Island	+12:45	Helsinki	+ 2:00
Antananarivo	+ 3:00	Cheyenne	− 7:00	Hermosillo	− 7:00
Asuncion	− 4:00	Chicago	− 6:00	Hong Kong	+ 8:00
Athens	+ 2:00	Cincinnati	− 5:00	Honolulu	−10:00
Atlanta	− 5:00	Cleveland	− 5:00	Houston	− 6:00
Auckland	+12:00	Colombo	+ 6:00		
Azores	− 1:00	Conakry	± 0:00	Indianapolis	− 5:00
		Copenhagen	+ 1:00	Istanbul	+ 2:00
Baghdad	+ 3:00				
Baltimore	− 5:00	Dakar	± 0:00	Jacksonville	− 5:00
Bangkok	+ 7:00	Dallas	− 6:00	Jakarta	+ 7:00
Barcelona	+ 1:00	Damascus	+ 2:00	Jeddah	+ 3:00
Basel	+ 1:00	Dar es Salaam	+ 3:00	Jerusalem	+ 2:00
Beirut	+ 2:00	Darwin	+ 9:30	Johannesburg	+ 2:00
Belgrade	+ 1:00	Delhi	+ 5:30		
Bergen	+ 1:00	Denver	− 7:00	Kabul	+ 4:30
Berlin	+ 1:00	Detroit	− 5:00	Kampala	+ 3:00
Birmingham	− 6:00	Dhaka	+ 6:00	Kansas City	− 6:00
Bismarck	− 6:00	Dubai	+ 4:00	Karachi	+ 5:00
Bogota	− 5:00	Dublin	± 0:00	Kathmandu	+ 5:45
Boise	− 7:00	Dusseldorf	+ 1:00	Khabarovsk	+10:00
Bonn	+ 1:00			Khartoum	+ 2:00
Boston	− 5:00	Edmonton	− 7:00	Kingston	− 5:00
Brasilia	− 3:00			Kinshasa	+ 1:00
Brazzaville	+ 1:00	Fernando de Noronha	− 2:00	Kuala Lumpur	+ 8:00
				Kuwait	+ 3:00
		Fort Worth	− 6:00	La Paz	− 4:00

City Name	Time Difference	City Name	Time Difference	City Name	Time Difference
Lagos	+ 1:00	New York	− 5:00	San Jose	− 6:00
Las Palmas	± 0:00	Niamey	+ 1:00	San Juan	− 4:00
Lilongwe	+ 2:00	Norfolk	− 5:00	San Salvador	− 6:00
Lima	− 5:00	Norfolk Island	+11:30	Sanaa	+ 3:00
Lisbon	± 0:00	Noumea	+11:00	Santa Fe	− 7:00
Lome	± 0:00			Santiago	− 4:00
London	± 0:00	Oklahoma City	− 6:00	Santo Domingo	− 4:00
Los Angeles	− 8:00	Omaha	− 6:00	Sao Paulo	− 3:00
Luanda	+ 1:00	Oslo	+ 1:00	Seattle	− 8:00
Lusaka	+ 2:00	Ottawa	− 5:00	Seoul	+ 9:00
Luxembourg	+ 1:00			Shanghai	+ 8:00
		Panama City	− 5:00	Singapore	+ 8:00
Madrid	+ 1:00	Papeete	−10:00	Sofia	+ 2:00
Managua	− 6:00	Paramaribo	− 3:00	St Petersburg	+ 3:00
Manaus	− 4:00	Paris	+ 1:00	Stockholm	+ 1:00
Manila	+ 8:00	Peking (Beijing)	+ 8:00	Sydney	+10:00
Maputo	+ 2:00	Perth	+ 8:00		
Marseille	+ 1:00	Philadelphia	− 5:00	Taipei	+ 8:00
Melbourne	+10:00	Phnom Penh	+ 7:00	Tampa	− 5:00
Memphis	− 6:00	Phoenix	− 7:00	Tegucigalpa	− 6:00
Mexico City	− 6:00	Pittsburgh	− 5:00	Tehran	+ 3:30
Miami	− 5:00	Port Louis	+ 4:00	Tijuana	− 8:00
Midway Is.	−11:00	Port Moresby	+10:00	Tokyo	+ 9:00
Milan	+ 1:00	Port au Prince	− 5:00	Toronto	− 5:00
Milwaukee	− 6:00	Port of Spain	− 4:00	Tripoli	+ 2:00
Minneapolis	− 6:00	Portland	− 8:00	Tunis	+ 1:00
Mogadishu	+ 3:00	Prague	+ 1:00		
Monrovia	± 0:00			Vancouver	− 8:00
Montevideo	− 3:00	Quito	− 5:00	Vienna	+ 1:00
Montreal	− 5:00			Vientiane	+ 7:00
Moscow	+ 3:00	Reykjavik	± 0:00		
Mumbai	+ 5:30	Rio de Janeiro	− 3:00	Warsaw	+ 1:00
Munich	+ 1:00	Riyadh	+ 3:00	Washington, D.C.	− 5:00
Muscat	+ 4:00	Rome	+ 1:00	Wellington	+12:00
				Winnipeg	− 6:00
Nadi	+12:00	Saint Louis	− 6:00		
Nairobi	+ 3:00	Salt Lake City	− 7:00	Yangon	+ 6:30
Nashville	− 6:00	Salzburg	+ 1:00	Yaounde	+ 1:00
Nassau	− 5:00	San Antonio	− 6:00		
New Orleans	− 6:00	San Diego	− 8:00	Zurich	+ 1:00
		San Francisco	− 8:00		