SHARP®

MODEL

EL-6300

OPERATION MANUAL

WARNING: THIS EQUIPMENT HAS BEEN CERTIFIED TO COMPLY WITH THE LIMITS FOR A CLASS B COMPUTING DEVICE, PURSUANT TO SUBPART J OF PART 15 OF FCC RULES. ONLY PERIPHERALS (COMPUTER INPUT/OUTPUT DEVICES, TERMINALS, PRINTERS, ETC.) CERTIFIED TO COMPLY WITH THE CLASS B LIMITS MAY BE ATTACHED TO THIS COMPUTER. OPERATION WITH NON-CERTIFIED PERIPHERALS IS LIKELY TO RESULT IN INTERFERENCE TO RADIO AND TV RECEPTION.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna.
Relocate the computer with respect to the receiver.
Move the computer away from the receiver.
Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems".
This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402,
Stock No. 004-000-00345-4
BILLING CODE 6712-01-M

A shielded I/F cable is required to insure compliance with FCC regulation for Class B computing equipments.

FOR YOUR RECORDS....

For your assistance in reporting this electronic calculator in case of loss or theft, please record below the model number and serial number which are located on the bottom of the unit.
Please retain this information.

Model Number _____ Serial Number _____

Date of Purchase _____ Place of Purchase _____

CONTENTS

INTRODUCTION

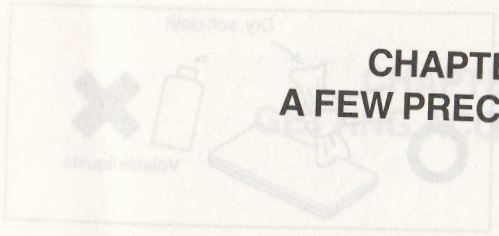
What will they think of next?

The Sharp EL-6300

Five different versatile, highly useful devices inside one extraordinary calculator so small it easily slips into a shirt pocket or small purse.

- An electronic telephone/address directory
  capable of holding dozens of names, telephone numbers, addresses, and other additional helpful information for up to 80 characters per entry.
- An electronic calendar
  that permits you to write yourself memos up to 80 characters long on errands, business meetings, luncheon engagements, and other daily events that are stored by date for instant recall.
- An electronic notebook
  that lets you dispense with pen and paper to quickly key in ideas, memos, comments, shopping lists, or whatever else comes to mind.
- A secret password
  If there are some things you do not want others to read, you can assign a secret password that protects those confidential entries in three modes: TEL memo mode, SCHEDULE memo mode, and NOTE memo mode while the rest of the information can be freely read.
- A multifunction calculator with percent, constant, repeat, memory, and other functions as well as the four basic arithmetic operations.
- A powerful calculator
  programmable in simplified BASIC language, with eight function keys that can be used to make versatile, powerful programs.

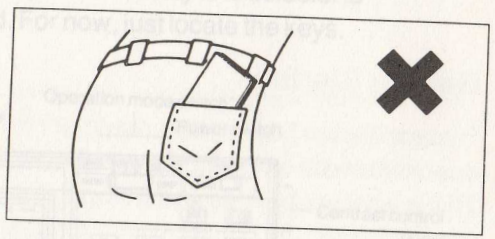
This manual explains how each of these features works and provides examples so you can easily master the numerous operations provided by the calculator. The Sharp EL-6300 – five different devices in one, all designed to help you do your own thinking.



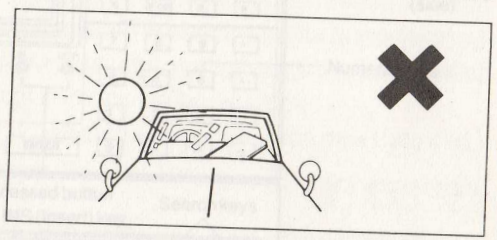
CHAPTER 1
A FEW PRECAUTIONS

You can look forward to a number of years of service from your new calculator if you follow a few simple precautions.

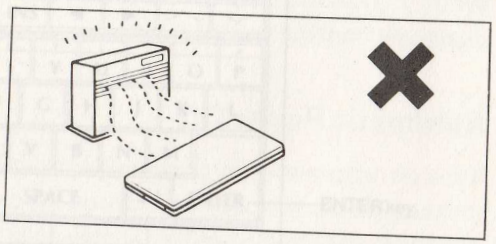
Do not put it in your back pocket. Too much pressure can bend or break the calculator.



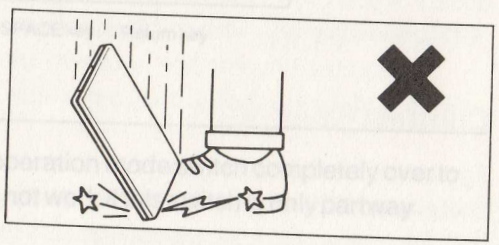
Keep it from direct sunlight and do not leave it in your automobile with the windows rolled up on a hot day.



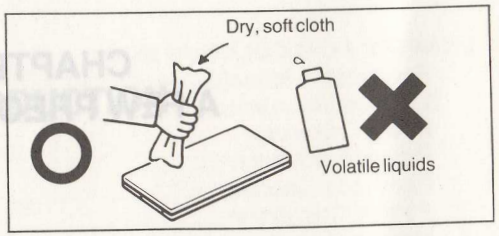
Do not place it near an oven, heater, or other heat-producing device.



Be careful not to drop it or subject it to unusual shocks.



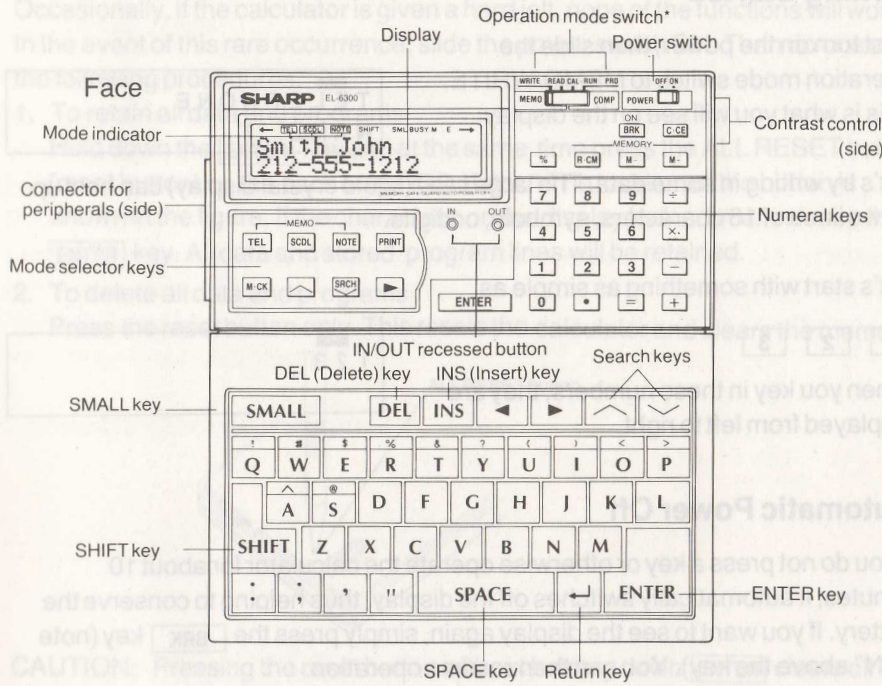
Clean it with a dry, soft cloth. Do not use volatile liquids such as thinner or benzene.



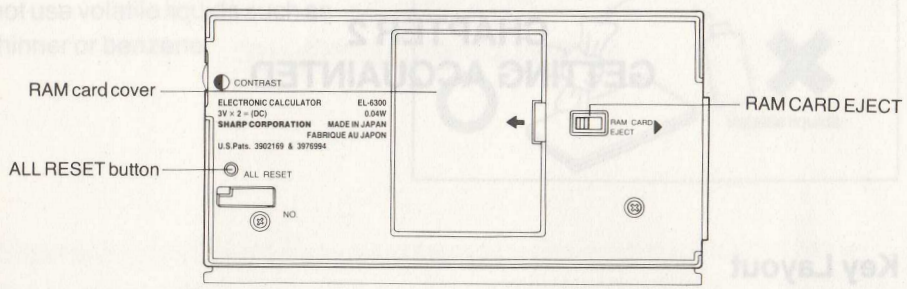
CHAPTER 2
GETTING ACQUAINTED

Key Layout

Before getting started, look at the key layout. Each key and selector is discussed in a chapter when it is used. For now, just locate the keys.



* When changing modes, move the operation mode switch completely over to the new mode. The calculator does not work if this switch is only partway between two mode positions.



Getting Started

First turn on the power, then slide the operation mode switch to MEMO/WRITE. This is what you will see on the display:

```
TEL
TELEPHONE
NAME  ?
```

Let's try writing in some data. The large LCD (liquid crystal display) can hold up to two lines of 16 characters, symbols, or digits.

Let's start with something as simple as

[1] [2] [3]

```
TEL
1 2 3_
```

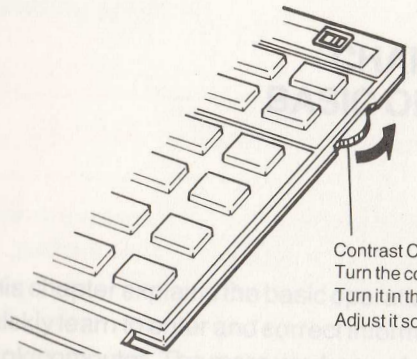
When you key in these numbers, they are displayed from left to right.

Automatic Power Off

If you do not press a key or otherwise operate the calculator for about 10 minutes, it automatically switches off the display, thus helping to conserve the battery. If you want to see the display again, simply press the [BRK] key (note "ON" above the key). You can then resume operation.

Contrast Control

If you have trouble seeing the characters, use the contrast dial to adjust the sharpness of the display. To darken, turn the dial in the direction of the arrow until the characters are dark enough.

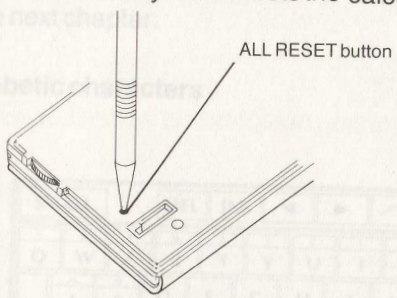


Contrast Control
Turn the control in the direction of the arrow for darker display.
Turn it in the opposite direction for lighter display.
Adjust it so that the display is easy to see.

Reset Button

Occasionally, if the calculator is given a hard jolt, none of the functions will work. In the event of this rare occurrence, slide the power switch ON. Then do one of the following procedures.

1. To retain all data and programs
   Hold down the [ENTER] key and at the same time press the ALL RESET button (reset button) on the back of the calculator.* The location of the button is shown in the figure. If the characters on the display look normal, release the [ENTER] key. All data and stored program lines will be retained.
2. To delete all data and programs
   Press the reset button only. This resets the calculator and clears the memory.



CAUTION: Pressing the reset button without holding down [ENTER] clears all information in the calculator memory, including all telephone listings, memos, and the stored program. Use the reset button with caution.

* A ball-point pen or similar object should be used to press the reset button. Do not use anything sharp or with a point that may break off.

CHAPTER 3
BASIC OPERATION

This chapter explains the basic operations and presents examples to help you quickly learn to enter and correct information on this versatile pocket data bank/computer. The more you know about the calculator, the more it will help you in your daily routine. So feel free to experiment with its many features.

Inputting Data

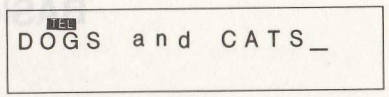
Three different types of data can be keyed into the calculator: alphabetic characters, numbers, and symbols. Each type of data has a slightly different way of being keyed in. As you follow the instructions below, refer to the illustrations. Slide the power switch to ON. Place the operation mode switch on MEMO/WRITE. For these examples we will use Tel Memo mode. Look to see that the Tel Memo mode indicator appears in the upper left corner of the display. If not, press the [TEL] key. For the meantime, ignore the word "TELEPHONE", "NAME?" and later "NUMBER?" shown in the display. You will find out what they mean in the next chapter.

Inputting alphabetic characters

* These keys are used mainly for alphabetic characters.

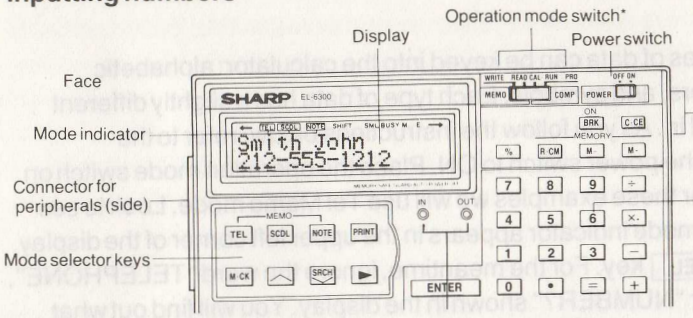
Example: To key in "DOGS and CATS",

[D] [O] [G] [S] [SPACE]
[SMALL] [A] [N] [D] [SPACE]
[SMALL] [C] [A] [T] [S]



As you've seen, when you press a character key, a capital letter appears on the display. If you want small letters instead, press the [SMALL] key. Note the SML indicator in the display. To go back to capital letters, press the [SMALL] key again. If you had wanted to store this information, you would have pressed [ENTER]. For convenience there are two [ENTER] keys on the keyboard. Either one can be used for storing data in the memory.

Inputting numbers

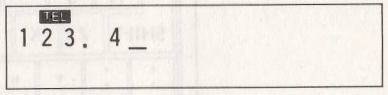


* These keys are used for inputting numbers and for calculations

Example: Input 123.4

First press [C·CE]. Then key in:

[1] [2] [3] [.] [4]



As you key in the numbers, the cursor (-) moves to the right. Here also, you would press [ENTER] to store the information.

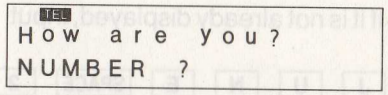
Inputting symbols

* The keys in the unshaded area are used for symbols.

To input symbols, press the [SHIFT] key to make the SHIFT indicator appear on the display. Then press the key of the symbol you want. Your symbol will appear and the SHIFT indicator will disappear, returning you to normal character input.

Example: How are you?

[C·CE]
[H] [SMALL] [O] [W]
[SPACE] [A] [R] [E]
[SPACE] [Y] [O] [U] [SMALL]
[SHIFT] [?] [ENTER]



Changing Data

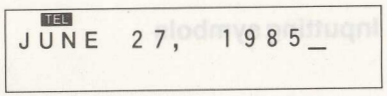
Correcting mistakes and changing what you've written is easy on this calculator, which allows you to re-input data, delete unwanted data, or insert new data.

Re-inputting data

Example: Input JUNE 27, 1985 and change "27" to "28".

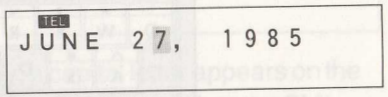
To clear the display, press either [C·CE] or [TEL] before inputting [ENTER]. Then key in next entry

J U N E SPACE 2
7 , SPACE 1 9 8 5



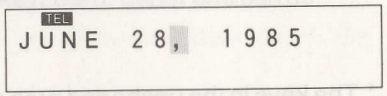
The cursor is next to the 5. To move it back to the 7, press

◄ ... ◄
(7 times)



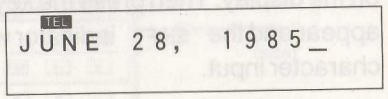
The number 7 blinks to indicate the new position of the cursor. Now simply press

8



to make your correction. Then if you want to continue inputting information, return the cursor to its original position by pressing

► ... ►
(6 times)

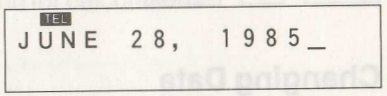


Deleting Data

Example: Input JUNE 28, 1985 and change "28" to "2".

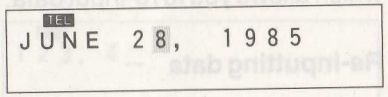
If it is not already displayed, input

J U N E SPACE 2
8 , SPACE 1 9 8 5



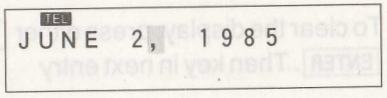
Move the cursor to the 8 by pressing

◄ ... ◄
(7 times)



Then delete the unwanted 8 by pressing

DEL

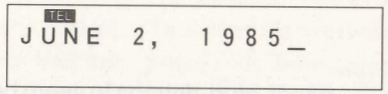


Inserting New Data

Example: Change JUNE 2, 1985 to JUNE 12, 1985

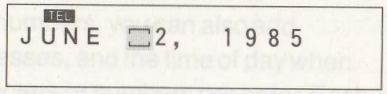
If it is not already displayed, input

J U N E SPACE 2
, SPACE 1 9 8 5



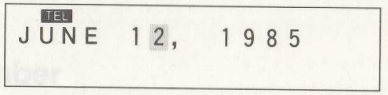
Move the cursor to the 2 and then press

INS



Now press

1



to make the insertion.

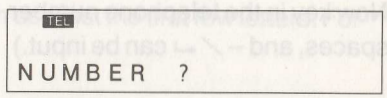
CHAPTER 4
TELEPHONE MEMO MODE

If your personal telephone directory is a tattered mess of scratch-outs, those days are over. Now you can look up business and private telephone numbers at the touch of a finger using the calculator's convenient Tel Memo mode. Not only can you easily record full names and numbers, you can also add pertinent information – such as job titles, addresses, and the time of day when the person can be reached – for up to 80 characters or numbers per entry. Each time you add a new name it is automatically entered in the existing list in alphabetical order.

Inputting Name and Telephone Number

The display is divided into two parts. The upper part is for inputting such information as the name, address, and any helpful comments you wish for up to 80 characters. The lower part is for inputting the telephone number.

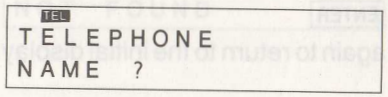
To see how this is done, let's try inputting some example listings.



Examples:

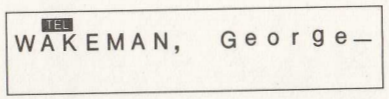
Name	Comment	Telephone number
WAKEMAN, George	(President, AbC Co.)	201-265-5600
FITZGERALD, Belinda	(after 6 p.m.)	312-482-9292
FIRST SAVINGS AND LOAN	(closes 5 p.m. M-F)	213-637-9488

Slide the operation mode switch to MEMO/WRITE

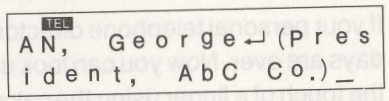


Look to see that the TEL indicator appears on the display. If not, press [TEL] key. If the above message does not appear, press [C·CE]. If it still does not appear, switch to MEMO/READ and then back to MEMO/WRITE.
Now key in the first entry.

WAKEMAN, George



[↵] (President, Abc Co.)

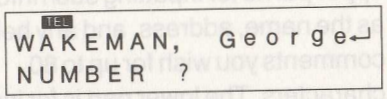


Inputting this here makes the entry easier to read.

A maximum 80 characters can be input but the number of characters displayed at a time is 32. When the 32nd character is input, the leftmost character in the upper part of the display is shifted one digit to the left and thus cannot be viewed on the screen. If you have problems with entry, see Chapter 3.

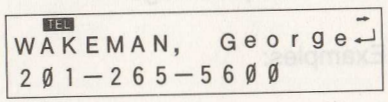
To signal that you have finished keying in information for the "name" portion of the display, press

[ENTER]



Now key in the telephone number. (In the "number" part of the display, only 0-9, spaces, and −/↵ can be input.)

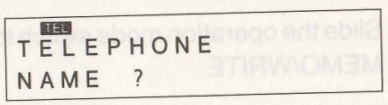
201-265-5600
[ENTER]



This completes your telephone entry for George Wakeman. His name, title, company, and telephone number have now been entered and alphabetically stored in the memory.

Press

[ENTER]
again to return to the initial display.

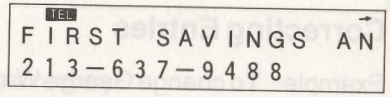


Go ahead and input the rest of the examples for practice and to see how the alphabetizing function works.

Reading Telephone Listings

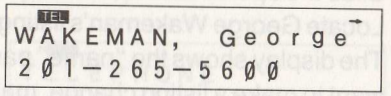
There are two ways to locate and read a telephone listing. The first is to repeatedly press [▽] until you reach the name you want. The second is to key in the name, or the first several letters in the name, and then press [▽]. The name appears immediately on the display.

For these operations, first slide the operation mode switch to MEMO/READ.



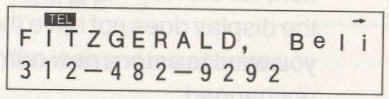
To see George Wakeman's telephone number, press

[▽] [▽]



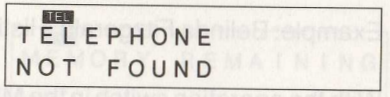
If you continue to press [▽] and go past the line you need, you can press [△] to call the data back in display. If the display doesn't change when you press [△] or [▽], it means the display is of either the first or last input data. If a number of names have been entered, you can see how long it would take to reach his name. So let's try the direct search method instead.
This time, let's search for Belinda Fitzgerald's name. You don't have to key in all of her last name, however. If you want, you can use just the first few letters. For instance, we can simply key in

[F] [I] [T] [▽]



and the first entry reached that begins with "FIT" in it is shown on the display.

When no letters in that sequence are found, the message NOT FOUND is displayed.



An arrow appearing on the top right/left corner of the screen means that there is more input data which cannot be seen in upper/lower half portion in addition to the displayed data. To display that, press [▶] or [◀].

- When the first input data in sequential order is to be displayed, press [^] key after pressing [C·CE] key.
- If MEMO/READ is set when the power is turned on, the first data stored in alphabetical order appears.
- If there is more than one "FIT" in the stored data, press [SRCH] until you reach the one you want.

Correcting Entries

Example: To change George Wakeman's telephone number to 201-265-0000.

Slide the operation mode switch to MEMO/WRITE.
Locate George Wakeman's listing by either of the two search methods.
The display shows the "name" part of the listing. To let the calculator know you want to make a listing change, make the cursor appear in the display by pressing [▶]. Now press the [ENTER] key to put you in the "number" part of Wakeman's current listing. Now move the cursor to the first number to be changed using [▶].
After you make the changes, again press the [ENTER]. This registers the new number in the memory. The "name" part of the entry remains unchanged.

Hint: If you want to enter a completely new number, after going to the "number" portion of the display as we did above, press [C·CE] key. The display then asks for the new number. Pressing [C·CE] while in the "name" portion of the display does not have the same effect. Instead, the calculator thinks you want to enter a new name and number. The old listing itself remains unchanged.

Deleting Information

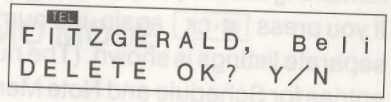
When you want to erase an old listing, use the [DEL] key.

Example: Belinda Fitzgerald's listing is to be deleted.

With the operation switch in the MEMO/WRITE position, locate the listing for Belinda Fitzgerald.

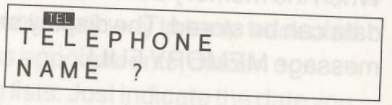
Then press

[DEL]



The display will ask you to verify that you want to delete the listing. Indicate "yes" by pressing

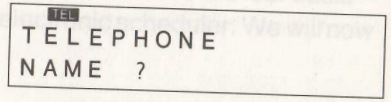
[Y]



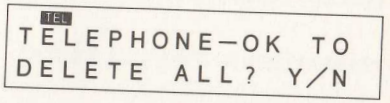
Example: To delete all listings in the Tel Memo directory.

With the operation switch in the MEMO/WRITE position, press

[C·CE]

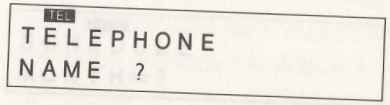


[DEL]



You are then asked to verify that you want to delete all telephone listings. Indicate "yes" by pressing

[Y]

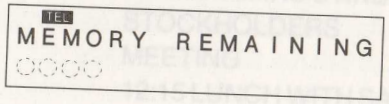


If a key other than "Y" is pressed after [DEL], the deletion is cancelled.

Checking Memory Capacity

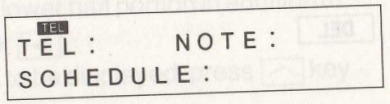
If you want to see how much more room you have in the telephone listing memory press

[M·CK]

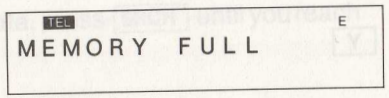


* Amount depends on memory remaining in your calculator.

Pressing [M·CK] once displays the remaining memory capacity.
If you press [M·CK] again, the number of separate listings is shown. (The number of entries for Schedule and Note Memo modes are also displayed.)



When the memory becomes full, no more data can be stored. The display shows the message MEMORY FULL.



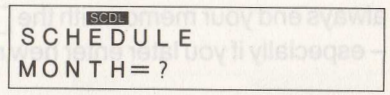
CHAPTER 5
SCHEDULE MEMO MODE

The Schedule Memo mode gives you an efficient, easy way to keep track of all those things you need to remember – business appointments, dinner engagements, birthdays, even short shopping lists. Just indicate the date you must do something, tap in your reminder, and then store it. Later, you can easily "flip" through your schedule for as many days as you need. Using this electronic calendar, you will never forget another birthday!
If you read Chapter 4, you are already familiar with the operations of the Schedule Memo mode. Just as with the Tel Memo mode, there are four basic operations used to enter information into this electronic scheduler. We will now practice using each one.

Inputting Dates and Reminders

Slide the operation mode switch to MEMO/WRITE, then press

[SCDL]



The display is divided into two parts. The first part is for the date and the second part is for your reminder. The memos for each entry can be up to 80 characters long. (Note: a number of entries can be used for one day.)
Now input the following examples.

Examples:	M 6	D 07	GO SHOPPING BUY VITAMINS C AND E
	M 7	D 01	STOCKHOLDERS MEETING
	M 7	D 11	12:15 LUNCH WITH SAM 3:00 DENTIST

The month is input as either a 1- or 2-digit number. "GO SHOPPING" on June 7 is our first item. For this, key in

6 [ENTER]

```
SCDL
MONTH=6
DATE  =?
```

to register the month. Then to register the day, key in

7 [ENTER]

```
SCDL
M/D=6/7
COMMENT  ?
```

You are now ready to key in the memo for that day.

```
SCDL
M/D=6/7
ITAMINS C AND E_
```

GO SHOPPING [↵]
BUY VITAMINS C AND E
When you are finished, press

[ENTER] [ENTER]

```
SCDL
SCHEDULE
MONTH=?
```

to return you to the initial display.

The memo is automatically stored in chronological order and the display asks for the next date to continue the scheduling. For practice, enter the rest of the items (or ones of your own choosing) in the same manner. It's a good practice to always end your memos with the [↵] key. This helps to keep them easy to read – especially if you later enter new memos for the same day.

To add new memos to the same day:
1. Call up the date entry with [▽] or [△]
2. Press [▶]
3. Press [ENTER] [ENTER]
4. Press [▶] to get to the end of the entry
5. Press [↵] if ↵ does not appear at the end of the line
6. Key in the new entry and press [ENTER]

Any time you want to return to the initial display, press either [SCDL] or [C·CE] before pressing [ENTER] key.

Reading Schedule Memos

There are two ways to read information in the Schedule Memo mode. One is to indicate the month you want and then press [▽] as many times as you need to quickly read through each day at a time.
The other way is to indicate the month and the specific day. This lets you go directly to the memo(s) for the day in question.

Example: To check the schedule for the first half of July (using the schedule examples given previously).

Slide the operation mode switch to MEMO/READ.
Make sure the display indicates that the calculator is in SCDL mode. If not, press the [SCDL] key.
Now, press

7

```
SCDL                    →
M/D=7/1
STOCKHOLDERS  MEE
```

to recall the memos for July.

Then you can press

[▽]

as many times as you wish until you have read through the month's memos.

Example: To check the schedule for July 11.

7 [ENTER] 11 [▽]

```
SCDL                    →
M/D=7/11
12:15  LUNCH  WITH
```

If no memo exists on the day in question, NOT FOUND is displayed.

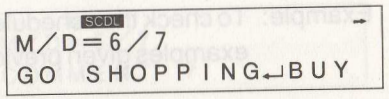
```
SCDL
SCHEDULE
NOT  FOUND
```

Correcting Existing Memos

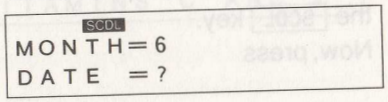
Making changes in previously written memos is easy to do.

Example: To change "VITAMINS C AND E" in the June 7 memo to "VITAMINS C AND B1".

Slide the operation mode switch to MEMO/WRITE. Make sure you are in SCDL mode, shown on the display. Locate the memo for June 7 using one of the two search procedures just explained.

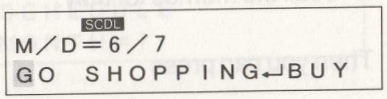


Press [▶]



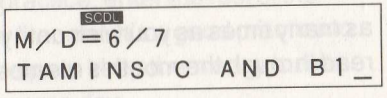
to indicate that you wish to make a change to the memo of that date. Then press

[ENTER] [ENTER]



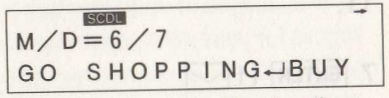
Now move the cursor to "E" by pressing [▶] and key in

[B] [1]



Then press

[ENTER]



This substitutes the rewritten memo for the old one in the memory. That's all there is to it.

Deleting Memos

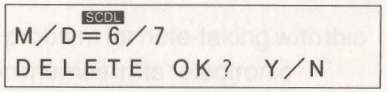
To conserve memory space, it is always a good idea to clear away old memos once they are no longer needed. There are two ways to do this. You can delete memos one at a time, or you can delete all the memos at once.

Example: GO SHOPPING on June 7 has passed and the reminder is to be deleted.

Slide the operation mode switch to MEMO/WRITE.
First locate the date containing the memo for shopping.

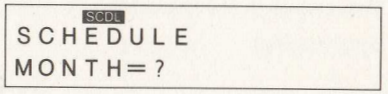
Then press

[DEL]



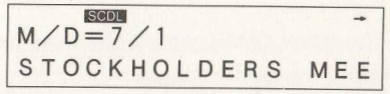
The display will ask you to verify that you want to delete the memo for that date. Indicate "yes" by pressing

[Y]



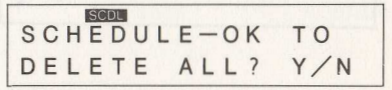
To delete the next entry for the month, press

[SRCH]



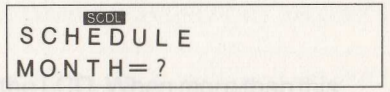
and repeat the procedure.
If all the memos in the Schedule Memo calendar are no longer needed, delete them all at one time using the following.
First key in

[C·CE] [DEL]



The display then asks you to verify that you want to delete all the existing memos. Indicate "yes" by pressing

[Y]



If a key other than [Y] is pressed after pressing [DEL], deletion is cancelled.

CHAPTER 6
NOTE MEMO MODE

Always forgetting your pen? That's no longer a problem for note-taking with this calculator. The Note Memo mode lets you key in memos in its "electronic notebook" in note segments up to 80 characters long. The information is stored in the memory in the order in which you wrote it, and is read out the same way.

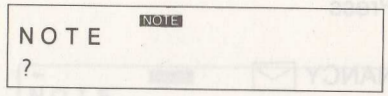
Inputting Note Memos

Example: LIST OF CHRISTMAS PRESENTS

JILL	SWEATER
NANCY	COMPUTER GAME
JOHN	PAINT SET
MOTHER	RING
GRAMPS	ROBE

Slide the operation mode switch to MEMO/WRITE.
To enter the Note Memo mode, press

NOTE



Then key in each line as shown.

LIST OF CHRISTMAS PRESENTS ENTER
JILL ↵ SWEATER ENTER
NANCY ↵ COMPUTER GAME ENTER
Etc.

A maximum of 32 characters are displayed on the LCD. When more than this number are keyed in, the earlier characters disappear one at a time as each new character is added. However, when you place the memo entry in the memory, up to 80 characters per entry are saved.

When needed, you can insert a new memo within existing entries. Simply recall an entry from the memory using the search procedure. With it showing on the display, key in the entry you wish to insert. When you press [ENTER], the new memo is placed in front of the one previously shown on the display. When you want to add new data after the last existing entry, press [C·CE] key and input the new data.

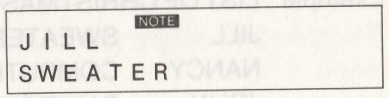
Reading Note Memos

Example: To look up the present for Jill.

Slide the operation mode switch to MEMO/READ.

Then search for the memo on Jill's present by pressing

[^] or [v]



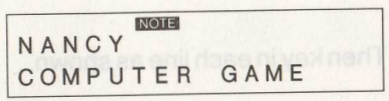
as many times as you need.

The other items can be checked the same way. The other way is to search input data directly.

Example: To search the present for Nancy

Press

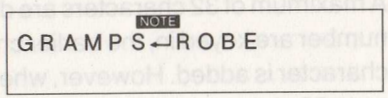
NANCY [v]



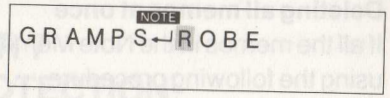
Correcting Note Memos

Example: To change the present for Gramps to a hammer.

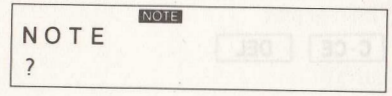
Slide the operation mode switch to MEMO/WRITE. Then locate the entry for Gramps using the search method given above.



Move the blinking cursor to the first letter of "ROBE" by pressing [▶]. Then make the change by keying in



[H] [A] [M] [M] [E] [R] [ENTER]
[ENTER]



Deleting Unwanted Note Memos

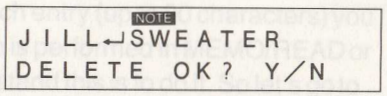
To conserve memory space, be sure to delete old memos once they are no longer needed. You can do this two different ways – a memo at a time, or all the memos at once.

Example: To delete the present for Jill.

Slide the operation mode switch to MEMO/WRITE.

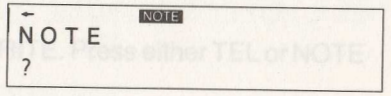
Locate the free memo for Jill's present using the search function explained earlier.
Now delete the memo by pressing

[DEL]



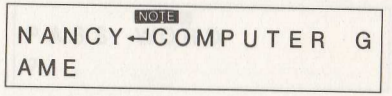
The display asks you to verify that you want to delete the memo. Indicate "yes" by pressing

[Y]



To delete additional memos, press

[v]

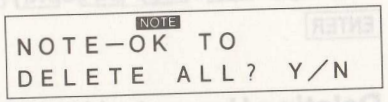


and repeat the procedure.

Deleting all memos at once

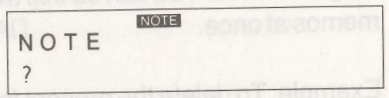
If all the memos in the Note Memo are no longer needed, delete them all at once using the following procedure.
First key in

C·CE DEL



The display asks you to verify that you want to delete all the existing memos.
Indicate "yes" by pressing

Y



If a key other than Y is pressed after pressing DEL, deletion is cancelled.

CHAPTER 7
PASSWORD PROTECTION

Sometimes you may have a need to protect information you write in the calculator's electronic memo modes – perhaps confidential or essential information you don't want read or changed by others.
If so, the calculator features a function which permits you to assign a password restricting access only to those who know the "key" to unlock the information.

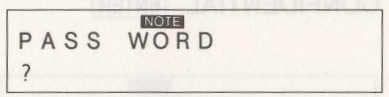
Assigning Password

Password protection is possible in Tel Memo, Schedule* and Note Memo modes, and is set by entering ? followed by ENTER, keying in the desired password (up to seven characters), and pressing ENTER. While only one password can be assigned, you can mix protected and unprotected information freely – all you have to do is start the protected information with a ?.
As long as the password remains in effect, each entry (up to 80 characters) you protect will show up as a single ? when search is performed in MEMO/READ or MEMO/WRITE mode. The best way to understand this is to do it. So let's go to our next example.

Example: Assigning the password CONFID.

Slide the operation mode switch to MEMO/WRITE. Press either TEL or NOTE key (in this case, Note Memo mode).
Then press

ENTER ? ENTER



*However, a password may be set or cancelled only while in Tel Memo and Note Memo modes.

The display, asks for the desired password.*
Key in the abbreviation CONFID.

```
NOTE
CONFID_
```

Then press

ENTER

```
NOTE
NOTE
?
```

You are now ready to enter your confidential information.
In order to let the calculator know that the following information is to be protected, it is necessary to first press

SHIFT ?

```
NOTE
?
```

and then write the information.
To see how this works with protected and unprotected information, key in the following lines in MEMO/WRITE, Note memo mode:

SHIFT ? THIS IS CONFIDENTIAL ENTER

```
NOTE
?THIS IS CONFIDE
NTIAL
```

ENTER

```
NOTE
NOTE
?
```

THIS IS NOT CONFIDENTIAL ENTER

```
NOTE
THIS IS NOT CONF
IDENTIAL
```

SHIFT ? THIS IS BACK TO CONFIDENTIAL ENTER

```
NOTE
?
```

*Password protection is not possible when recording to a cassette tape. This operation is explained in Chapter 10.

Now, if we change the operation mode switch to MEMO/READ, and perform search, you can see that the first and third entries appear as ? while the second entry appears as it was written.
In order to read the two confidential entries, it is necessary to first turn off the password protection.

Turning Off Password Protection

There are two ways to turn off the password protection. It can be done either temporarily or permanently, as explained below. Moreover, password protection can be turned off in both MEMO/READ and MEMO/WRITE modes.

Example: To temporarily cancel the CONFID password.

Press

SHIFT ? ENTER

```
NOTE
*PASS WORD*
?
```

The display asks you what the password is. Key in

C O N F I D ENTER

and then perform the search operation by pressing

```
NOTE
?THIS IS CONFIDE
NTIAL
```

As you can see, the confidential entries can now be read.
When you turn off the calculator, or when the calculator enters power-saving mode, the CONFID password is automatically restored.
To permanently cancel the password, press

SHIFT ? ENTER

```
NOTE
*PASS WORD*
?
```

When the display asks you for the password, key in

[C] [O] [N] [F] [I] [D] [ENTER]

NOTE
?

but this time follow this with

[SHIFT] [?] [ENTER] [ENTER]

NOTE
?

and no password is set.

To set and cancel password protection in the Tel Memo mode, follow the same procedure. While password protection can be used in Schedule Memo mode, it cannot be set or cancelled while in that mode. This should be done in one of the other two modes, after which the protected Schedule Memo entry can be read by pressing the [SCDL] key and then searching for the entry.

CHAPTER 8
CALCULATION MODE

Although this device is primarily a hand-held computer capable of simplified BASIC programming and electronic data recording, it can also be used as a basic calculator. Using simple examples, this chapter shows the four basic arithmetic operations (addition, subtraction, multiplication and division), and how to use the constants, powers, repeat, reciprocal, and percent functions. Also shown are how to use the memory and perform applied calculations.

For calculator operation, slide the operation mode selector switch to CAL·RUN.

Ø.

Four Basic Arithmetic Operations

Example: $(98+76-54)\times32\div10=384$

[C·CE] 98 [+] 76 [−] 54 [×] 32 [÷] 10 [=]

3 8 4.

Calculations can be performed up to a maximum of 10 digits. When a calculation result is greater than 10 digits, an error occurs and "E" is displayed.

Constant Calculation

Example: $3.14\times9.89=31.0546$
$3.14\times100=314$

[C·CE] 3.14 [×] 9.89 [=]

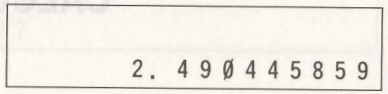
3 1 . Ø 5 4 6

100 [=]

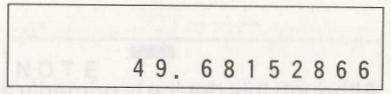
3 1 4.

Example: 7.82 ÷ 3.14 = 2.490445859
156 ÷ 3.14 = 49.68152866

[C·CE] 7.82 [÷] 3.14 [=]



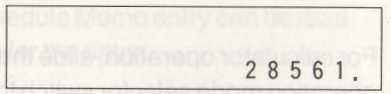
156 [=]



Power Calculation

Example: $13^4 = 28561$

[C·CE] 13 [×] [=] [=] [=]



Repeat Calculation

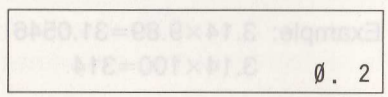
Example: 5+4+2+2+2+2=17

[C·CE] 5 [+] 4 [+] 2 [=] [=] [=] [=]

Reciprocal Calculation

Example: $\frac{2}{2\times3+4}=0.2$

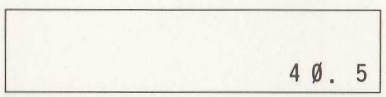
[C·CE] 2 [×] 3 [+] 4 [÷] [=] 2 [≐]



Percent Calculation

Example: Find 15% of 270

[C·CE] 270 [×] 15 [%]

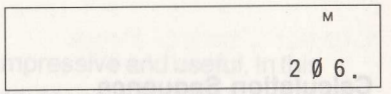


Memory Calculation

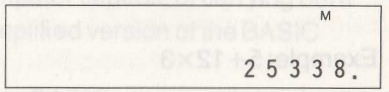
Example: (326−120)×(110+13)=25338

[R·CM] [R·CM] * [C·CE]

326 [−] 120 [=] [M+]



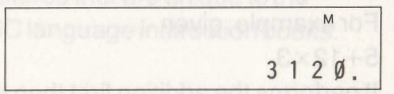
110 [+] 13 [×] [R·CM] [=]



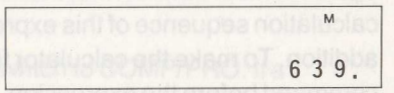
Example: (520×6)−(213×3)=2481

[R·CM] [R·CM] [C·CE]

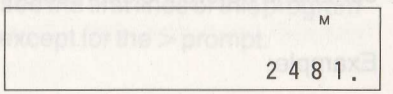
520 [×] 6 [M+]



213 [×] 3 [M−]



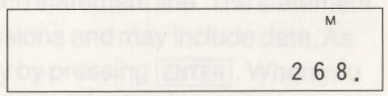
[R·CM]



Applied Calculation

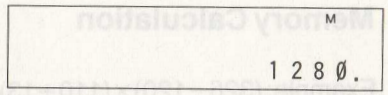
Example: 134×2= 268
256×5=1280
+)987×7=6909
8457

[R·CM] [R·CM] [C·CE]
134 [×] 2 [M+]

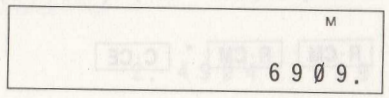


* By pressing [R·CM] twice, memory content will be cleared.

256 [×] 5 [M+]



987 [×] 7 [M+]

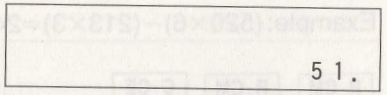


[R·CM]

Calculation Sequence

Example: 5+12×3

5 [+] 12 [x] 3 [=]



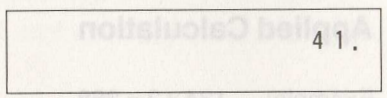
Unless otherwise specified, this calculator sequentially performs calculation starting from the left member of the expression, irrespective of calculation rules. For example, given

5+12×3

It performs the addition first then the multiplication. However, the algebraic calculation sequence of this expression is multiplication first and then the addition. To make the calculator follow the algebraic sequence, add PRINT command before the expression.

Example:

[P] [R] [I] [N] [T] 5 [+] 12 [×] 3 [ENTER]



CHAPTER 9
INTRODUCTION TO BASIC PROGRAMMING

This device's final feature is perhaps the most impressive and useful. In this pocket-sized device is a small but powerful computer capable of carrying out a number of programming operations using a simplified version of the BASIC language.

This chapter is meant solely as an introduction to BASIC programming using the calculator. Persons already familiar with BASIC language will be able to quickly use the calculator's programming capabilities. Others may find it helpful to consult the application book on simplified BASIC programming included with this calculator.

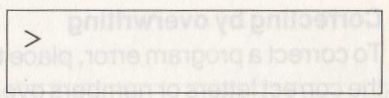
The next pages explain some programming features that are unique to the calculator or may not be included in other BASIC language instruction books.

Getting Started

To write a program, move the operation mode switch to COMP/PRO. If a program already exists in the memory, you will see the first lines of this program on the display. Otherwise, the display is blank, except for the > prompt.

To clear the old program, key in

[N] [E] [W] [ENTER]



Line Numbers

Line numbers are written at the beginning of each statement line. The statement line contains one or more commands or expressions and may include data. As each line is written, it is entered into the memory by pressing [ENTER]. When you do this, a colon appears between the line number and the first letter of the

command or expression. When programming, it is wise to allow increments in your line numbering (10, 20, 30...10, 30, 50, etc.). This enables you to insert additional lines, if necessary.
To write the next line, key in the next number in succession and then the command or expression. When you start to write this next line, the previous program line disappears and the display shows your new line as you write it.

Cursor Control Keys

The cursor control keys are used to move the cursor left or right on a line and to scroll the program up or down. To move the cursor left press the [◄] key; to move the cursor right press the [►] key.

CAUTION: The [►] key on the upper keyboard cannot be used as a cursor key.

To scroll the program backward (toward the first line), use the [^] key. To move forward in the program (toward the last line of the program) use the [v] key. These keys make it easy for you to scan through your program a line at a time.

Correcting and Modifying Program

Use the [DEL] and [INS] keys to change or correct the program. With the operation mode switch in COMP/PRO mode, scroll the program to the line you want to change. Then move the cursor to the character or number you want to change.

Correcting by overwriting

To correct a program error, place the cursor over the mistake and simply key in the correct letters or numbers over it. Register the correction by pressing the [ENTER] key.

Example: To correct the misspelling of "PRITN"

Move the cursor to the "T", then key in

[N] [T] [ENTER]

```
50 PRITNA
```

```
50:PRINT A
```


Deleting within a program

To delete, place the cursor on the character or number you want to delete and press the [DEL] key.

Example: To delete the "E" in "PRINET"

50 PRINET A [ENTER]

```
50:PRINETA
```

Move the cursor to the "E".

```
50 PRINETA
```

Press [DEL] key one time.

```
50 PRINTA
```

To register the change, press [ENTER].

```
50:PRINT A
```

Inserting within a program

To insert, move the cursor to the location where you want to make the insertion. Press the [INS] key. A box□appears and the characters shift to the right by one position. Now press the key for the first character of the word or number you want to insert. Then repeat the operation for the remaining characters or numbers you want to insert. A faster way is to press [INS] the number of times necessary to write in the complete insertion all at once.

Example: To insert "COST:",

Move the cursor to the "A".

```
50 PRINT A
```

Press [INS] eight times.

```
50 PRINT □□□□□□□□A
```

Then key in "COST:",

```
50 PRINT "COST:",A
```

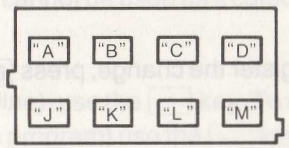
o register the change, press
NTER

```
50 : PRINT "COST :"
   , A
```

efinable Start Keys and Template

ne eight keys below the display on the left assume different functions while in OMP modes. A special template is provided to be placed over the keys while ey are used in this mode. (See illustration.) Each key is assigned a letter (A to , J to M). These letters appear on the display when the respective key is ressed while writing or running a program. To attach the template, bend the mplate so that you can insert the tabs on the middle left side and bottom right de to fit into the slots of the body. To take off the template, hook your nail to the ght side of template and simply lift up.

ne purpose of these definable keys is to make possible for you to RUN a program starting om whatever line you desire. To see how to o this, enter this short program.



Vriting Program

rst, move the operation mode switch to OMP/PRO.

```
>
```

nen key in these lines exactly:

```
) "A":INPUT "COST=", A
) INPUT "QUANTITY=", B
) C=A * B
) PRINT "TOTAL=", C
) END
```

unning Program

o RUN the program, move the operation mode switch to CAL·RUN. Now, ace the template over the eight definable start keys under the LCD, and press e [A] key ([TEL]). This key was assigned in line 10; it causes program ecution to begin at that line.

Key in data in response to the first question, which asks you to input "cost". Let us say the cost is $50.* Key in

50 [ENTER]

```
QUANTITY=
?
```

The program then asks for the quantity. We will make the quantity be 30. Key in

30 [ENTER]

The result is then shown in the display.

```
TOTAL=
                1500.
```

To modify the program so that you can hold one of the variables constant (in this case, COST A) and start the program from a different line, make this change to line 20. First slide the operation mode switch to COMP/PRO, then scroll the program to line 20 using [^].

Move the cursor to I in "INPUT" using [►] (lower keyboard).

```
20 INPUT "QUANTI
    TY=", B
```

Press [INS] three times, then press the "B" key ([SCDL]) of the definable start keys.

Press [ENTER] to register the change to line 20 in the memory.

To RUN the program, move the operation mode switch back to CAL·RUN

Now, if you press the "B" key of the definable start keys, the program will RUN starting from line 20. Since the value for COST A is still $50, you can hold that value constant and do repeated calculations using this cost for various quantities. If at some time it is necessary to change the value of the cost, RUN the program from the beginning by pressing the A key.

If, on the other hand, you wish to keep QUANTITY B constant, press [ENTER] instead of keying in a number when the program asks for the quantity to be input.

As you can see, there are a number of possible applications for this helpful function.

NOTE: Keys [%] [R·CM] , [M−] , [M+] , and the mark [↵] cannot be used in a program.

* In this case, "$" is used as one example of a currency unit.

BASIC Variables, Functions, Commands

The simplified BASIC language used by this calculator makes possible a number of useful programs. The functions and commands are listed below. For the sake of convenience, you do not have to input the entire command word. Instead, key in the required part of the word, and substitute a single period for the underlined part. For example, the PRINT command can be input either in full or as P followed by a period.

The variable can be made up of one or two characters. The variable this calculator uses can be classified into three types: the numeric variable, the single-character variable, and the double-character variable. Up to 10 digits of numeric variables can be stored in the calculator's memory. The number of single-character variables that can be stored is 7 whereas up to 16 double-character variables can be stored. In addition, a variable can consist of a character and numerals in combination, like A(1), A(28), etc. Note, however, that when A(1) is to be used, it uses the same variable area as A. This also holds true when A$ or A$(1) is used. Therefore, when A is used, A$ cannot be used. Moreover, when A(28) is used, all the variable areas for A(1) to A(28) are automatically reserved.

To check the value of a function or the contents of a variable, use PRINT command. For example, to check the number of available bytes, input PRINT MEM [ENTER]. To check the contents of variable A, input PRINT A [ENTER].

Functions

Function	Features	Range
EXP expression	e^x	$-1\times10^{10} <$ expression $\leq$ 23.02585092
INT expression	Integer	
LN expression	ln, $\log_e X$	$1 \times 10^{-9} \leq$ expression $< 1 \times 10^{10}$
LOG expression	$\log_{10} X$	$1 \times 10^{-9} \leq$ expression $< 1 \times 10^{10}$
MEM	Returns the number of available bytes in the program data area.	
y ^ x	y^x (exponentiation)	when $y > 0$, $-1 \times 10^{10} < x \log y < 10$ when $y = 0$, $x > 0$ when $y < 0$, $x > y$, x is an integer or 1/x is an odd number where $-1 \times 10^{10} < x \log \lvert y \rvert < 10$

List of Commands

In the following list, the character string enclosed by brackets can be omitted.

Command: CLEAR
Purpose: Clears all data.
Example: CLEAR [ENTER]

Command: END
Purpose: Ends program execution.
Example: 100: END

Command: FOR numeric variable = initial value TO end value [STEP increment]
.....
.....
NEXT numeric variable
Purpose: Executes the program the specified number of times. Five levels of nesting are possible.
Example: 20: FOR A=1 TO 10 STEP 2
.....
.....
100: NEXT A
Remarks: The range of the numeric variables is as follows:
-9999999999 ≤ initial value, end value, increment ≤ 9999999999
If STEP and the items following are omitted, the increment is assumed to be 1.

Command: GOSUB expression or character string
.....
.....
RETURN
Purpose: GOSUB command transfers program execution to the specified statement while RETURN command returns it to the original statement.

Example: 20: GOSUB 100
.....
.....
200: RETURN

Remarks: expression: line number
character string: line label name

Command: GOTO expression or character string
Purpose: Transfers program execution to the specified statement.
Example: 20: GOTO 100

Command: IF condition THEN statement (IF condition statement)
Purpose: Judges a given condition and changes the flow of program execution (i.e., the sequence in which the statements are executed).
Example: 20: IF A>=B THEN 100
Remarks: The condition can use the following.
=, >, >=, <, <=, <>

Command: INPUT variable[,variable...]
INPUT "character",variable[,"character", variable...]
INPUT "character"; variable[,"character"; variable...]
Purpose: Stops program execution temporarily and allows numeric values and characters using the keys.
Example: 20: INPUT "COST:"; A

Command: LET numeric variable=expression
LET character variable=character string
Purpose: Assigns a numeric value to a variable.
Example: 20: LET A=B+3

Command: NEW
Purpose: Erases the existing program.
Example: NEW [ENTER]

Command: PASS"character"
Purpose: Gives a user-defined password (up to seven alphanumeric characters) to a program so that the program can be used only by those who know the password. Also cancels a

previously set password.
Example: PASS "CONFID" [ENTER]
Remarks: As the "character", a maximum of seven characters can be used.

Command: PRINT expression or character string[,expression or character string]
PRINT expression or character string[;expression or character string...]
Purpose: Displays the specified contents on the LCD.
Example: 20: PRINT "COST:", A

Command: RUN [expression or character string]
Purpose: Starts program execution.
Example: RUN [ENTER]
Remarks: If nothing is specified in the brackets, the first line number is assumed.

Command: USING ["format]
Purpose: Specifies a display format when numeric values and characters are to be displayed.
Example: 20:USING "###.##"
Remarks: If nothing is specified in the brackets, the specified format is canceled.

Command: LLIST
Purpose: Outputs the program to the printer.
Example: LLIST [ENTER]

Command: LPRINT expression or character string[,expression or character string]
LPRINT expression or character string[;expression or character string...]
Purpose: Outputs the specified program (or part of a program) or data to the printer.
Example: LPRINT "TOTAL" ;T

Command: CLOAD
Purpose: Loads a program from a cassette tape to the calculator.

Example: CLOAD [ENTER]

Command: CLOAD?
Purpose: Verifies the program recorded on a cassette tape against the program in the calculator.
Example: CLOAD? [ENTER]

Command: CSAVE ["password"]
Purpose: Saves a program from the calculator to a cassette tape. Also makes the saved program a secret of a particular user through assignment of a password to the program.
Example: CSAVE [ENTER]
CSAVE, "CONFID" [ENTER]
Remarks: The "password" is a character string of up to seven characters.

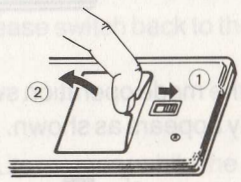
CHAPTER 10
MAINTENANCE AND PERIPHERAL DEVICES

The calculator's versatility is even further enhanced by several peripheral devices which are separately available. These useful devices include additional RAM cards, a printer, and a commercially available cassette tape recorder (requiring a cassette recorder interface). This chapter explains how to use these peripherals.
First, a word on maintenance of the calculator.

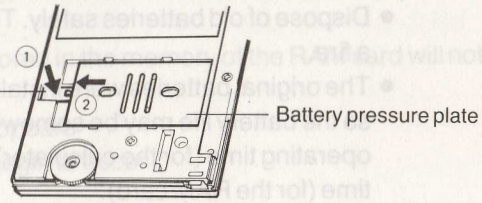
Changing Batteries of Calculator

Even with the contrast control turned all the way up, if the display is hard to see it is time to change the batteries of the calculator. This operation only takes a few minutes.

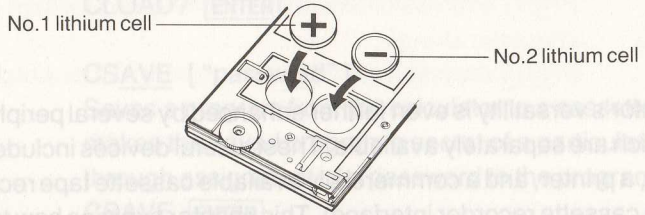
1. Slide the power switch to OFF.
2. After sliding RAM CARD EJECT to the right, remove the RAM card cover (COVER) as shown in the illustration below.



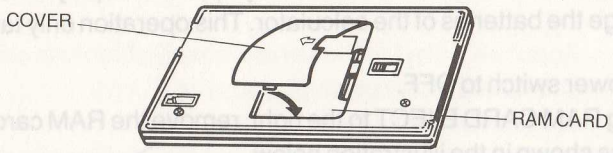
3. Take out the RAM card accessible from the bottom of the calculator as shown below.
4. Remove the two screws from the back of the calculator and take off the back cover.
5. Press down the catch holding on the battery pressure plate, then slide the pressure plate off.



6. Remove the batteries in the sequence shown.
7. Replace the old batteries with new lithium ones. First clean the new batteries with a dry cloth. Be sure to install them in the proper position paying attention to the direction of the + and − symbols. (No. 1 battery should be placed with the + symbol up and No. 2 battery should be placed with the − symbol up.)



8. Put back the battery pressure plate and cover.
9. Before replacing the RAM card, slide the power switch to ON and press the reset switch.
0. Reinstall the RAM card.
1. Replace the RAM card cover as shown below.



2. Slide the mode operation switch to MEMO/WRITE and check that the display appears as shown.

his completes battery installation.

ote:
- Keep the batteries out of reach of children.
- Dispose of old batteries safely. The batteries may explode if placed in a fire.
- The original batteries were installed upon shipment from the factory, so the battery life may be somewhat less than the normal 120 hours operating time (for the calculator) and 40-month memory backup time (for the RAM card).

- Remove the batteries when they become exhausted or if the calculator is to be stored indefinitely. The batteries may leak and cause damage.

Additional RAM Cards

The calculator can use three kinds of RAM cards: the 2K-byte CE-210M, the 4K-byte CE-211M, and the 8K-byte CE-212M.
Many users of the calculator find it preferable to extend the available memory by using separate RAM cards for some or all of the different functions – for instance, one or more cards for the electronic memos, another card for BASIC programming, and so on.

Changing the RAM card

1. Turn the power switch OFF.
2. Locate the RAM card holder on the underside of the calculator.
3. Remove the RAM card cover (see page 47).
4. The RAM card pops out when the release is moved to the right.
5. Remove the card, taking care not to touch the gold-colored metal contacts on the reverse side.
6. Place the substitute RAM card in the holder with the label side facing out.
7. Put back the RAM card cover.
8. Lock the new card in place by sliding the release switch back to the left.
9. Place the spare card in its storage holder.

RAM card backup battery

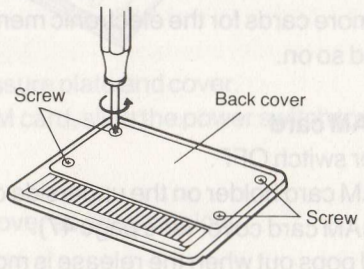
The RAM card has a battery to preserve data in its memory while the power is turned off. The service life of the battery for the standard 2K-byte RAM card is 40 months when the card is removed from the calculator and stored under normal temperature (20°C or 68°F). It is advisable to write down the date of replacement so that you know when the batteries should next be changed.

NOTE:
- If you notice the following, the RAM card batteries probably need to be changed:
  – The BASIC program stored in the memory of the RAM card will not run
  – Meaningless display appears
  – Unexplainable errors begin to occur

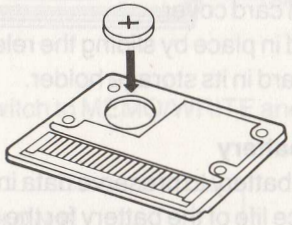
hanging RAM card battery

/hen the battery is changed in the RAM card, all data and programs currently in ie memory are unavoidably destroyed. Critical data and programs can be ansferred to another RAM by use of the optional peripheral CE-126P with a assette tape recorder (such as the CE-152) prior to replacing the battery.

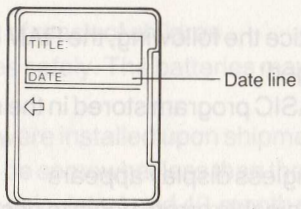
. Follow the instructions given above for removing the RAM card from the calculator.
. Remove the four screws on the back of the RAM card. Then remove the battery cover.



. Extract the old battery.
. Clean the new battery (lithium, CR-1616) with a dry, soft cloth. Place the battery in the cavity of the RAM card with the "plus" sign facing up.



. Replace the battery cover and four screws.
. Using a pen with permanent ink, write the date of replacement on the RAM card.



7. Reinstall the RAM card in the calculator.
8. Replace the RAM card cover.

Printer

The optional CE-126P Thermal Printer can be connected to the calculator for printing out memos and obtaining a hardcopy of program listings and results.

Printing out

The printer can be used several different ways.

- To print out only the contents of the display, press the [PRINT] key. This is useful for printing out short items, such as the result of an arithmetic operation or program.
- To print out the contents of a memory entry (such as a telephone listing), press the [SHIFT] key, then the [PRINT] key. This prints out the entire contents of the entry being displayed.
- All contents of the memory can be printed out individually for Tel Memo, Schedule Memo, and Note Memo. Select which memo category you want and press its key (either [TEL], [SCDL] or [NOTE]) and then press the [PRINT] key.
  - Press [BRK] to stop printing
  - Use the BASIC LLIST or LPRINT command to print out a program or program result.
  - When printing memos, wait for the printer to stop before pressing the [PRINT] key again, otherwise the printing may be disrupted.
  - Refer to the CE-126P Thermal Printer operating manual for information on connecting it to the calculator.
  - Be sure that the power switch is OFF when connecting the printer.

Cassette Tape Recorder

Many commercially available cassette tape recorders can be connected to the CE-126P to store programs or electronic memos. Once programs are recorded, the tapes can also be used for transferring programs and data to another RAM card.

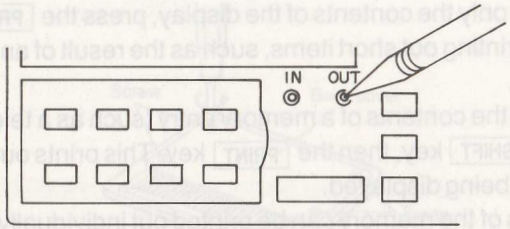
Saving contents to cassette tape from calculator

Connect the cassette tape recorder to the calculator in accordance with the operating manual supplied with the interface.

To record the contents of a memo, slide the operation mode switch to either MEMO/READ or MEMO/WRITE, then press the mode key of the memo category you want to record (either [TEL], [SCDL], or [NOTE]).

Set a cassette tape in the cassette tape recorder. Make sure the cassette tape is beyond the clear leader, to make actual recording tape.

Press RECORD on the cassette tape recorder.



Using a pointed object such as a ball-point pen, press the OUT button (see illustration above) and the display appears as follows:

Press [1] key: start recording
Press [2] key: verify contents stored in memory of the calculator and contents of memo recorded on the tape

```
PRESS 1:SAVE
PRESS 2:VERIFY
```

To record, press [1].

Once BUSY disappears from the display, verify that the program has recorded correctly as follows:

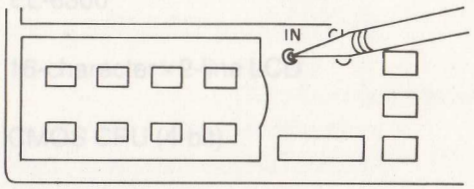
1. Rewind the tape to the beginning of the program.
2. Press the OUT button on the calculator.
3. Press the [2] key (verify).
4. Press PLAY on the cassette tape recorder.

For more details on saving and verification, see the CE-126P instruction manual.

Transferring contents to calculator from cassette tape

To transfer the contents of a cassette tape holding a program or memo recorded earlier, slide the operation mode switch to either MEMO/READ or MEMO/WRITE and press the mode key of the category for which the transfer is to be made (either [TEL], [SCDL], or [NOTE]).

Using a pointed object such as a ball-point pen, press the IN button (see illustration) of the calculator, then the PLAY button of the recorder to begin the transfer operation.



During transfer, the existing contents of the RAM card are erased and are replaced by the contents of the cassette tape.

NOTE:
- When you want to record, verify, or transfer all contents of a RAM card, slide the operation mode switch to COMP/PRO. Then follow the same procedure given above.
- When you want to record, verify, or transfer a program written in BASIC, slide the operation mode switch to COMP/PRO and follow the procedure given above. These operations can also be performed using the BASIC commands CSAVE and CLOAD.
- For more details on cassette transfer, see the CE-126P instruction manual.

CHAPTER 11
SPECIFICATIONS

Model:	EL-6300
Display:	16-character×2-line LCD
CPU:	CMOS CPU (4-bit)
Memory capacity:	RAM – System, 2K bytes Available user area, 1,262 bytes (including fixed memory area, 1470 bytes)
Dimensions:	opened – 136(W)×156(D)×9.5(H) mm 5 – 11/32″×6 – 5/32″×3/8″ closed – 136(W)×78(D) 12.8(H) mm 5 – 11/32″×3 – 11/16″×1/2″
Weight:	142 g (0.31 lb) (with batteries, RAM card (CE-210M))
Power supply:	6.0 V DC (lithium batteries) Type – CR-2032×2
RAM card backup battery:	3.0 V DC (lithium battery) Type – CR-1616×1
Power consumption:	0.04 W • The battery lasts for approximately 120 hours of continuous operation in normal circumstances. (Based on 10 minutes of operation or program execution and 50 minutes of display per hour, at a temperature of 20°C) • Battery life varies slightly depending on usage and the type of battery used.

Operating temperature:	0° - 40°C
Service life of backup battery:	With RAM card installed in calculator – approximately 5 years With RAM card removed from calculator – approximately 40 months
Accessories:	Template, two lithium cells (built-in), operation manual, and RAM card (CE-210M, built-in cell)

Memo Mode Capabilities

Tel Memo:	Input of name, telephone number/reading out (search function: sequential search, direct search) Approximately 70 entries can be input (an average of 10 characters and 12 numbers per entry)
Schedule Memo:	Input of date, schedule/reading out (search function: sequential search, direct search) Approximately 78 entries can be input (an average of 13 characters per entry)
NOTE Memo:	Input of Note memo/reading out (search function: sequential search) Approximately 60 entries can be input (an average of 20 characterts per entry, including "↵".)

NOTE: The capacities given above are for the standard (2K-byte) RAM card for each mode exclusively.

Calculator Mode Functions

Calculation limit:	10 digits
Arithmetic operations:	Addition, subtraction, multiplication, division Memory function
Programming language:	Simplified BASIC

INDEX

MODEL EL-6300, OPTIONAL BOARD AND PERIPHERALS
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