SHARP®

ELECTRONIC ORGANIZER

MEMO MASTER ALARM 500 MODEL EL-6190

OPERATION MANUAL

Cautions

- Do not carry the EL-6190 in the pocket of your slacks or trousers.
- Do not drop the EL-6190 or apply excessive force.
- Do not subject the EL-6190 to extreme temperatures.
- Clean only with a soft, dry cloth.

If service is required, use only a SHARP servicing dealer, SHARP approved service facility, or SHARP repair service where available.

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Using the EL-6190 for the First Time

Be sure to perform the following operation before using the EL-6190 for the first time.

Fig. 1

1. Pull out the insulation sheet. (Fig. 1)

   (This sheet was inserted at the factory to prevent battery wear. Operation of the EL-6190 begins when it is pulled out.)

2. Press $\boxed{\text{C·CE}}^{\text{ON}}$ to turn the power on.

3. Press the **RESET switch** on the back. (Fig. 2)

4. Press $\boxed{\text{SHIFT}}$ $\boxed{\text{ENTER}}$.

5. Set the date and time of the clock. (Refer to page 9.)

Fig. 2
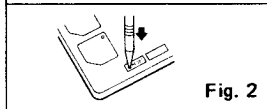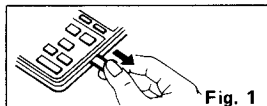
When Abnormal Conditions Cause a Malfunction

If the EL-6190 is subjected to strong, extraneous electrical noises or shocks during use, an abnormal condition may occur in which no keys (including $\boxed{\text{C·CE}}^{\text{ON}}$) will respond. If this happens, press the **RESET switch** on the back of the EL-6190 and **any key other than** $\boxed{\text{SHIFT}}$ $\boxed{\text{ENTER}}$.

If an error occurs internally, "**DATA PROBLEM**" and "**PRESS· RESET!**" are displayed alternately. Clear all memory by performing steps 3 and 4 above.

Note The above operation may clear all memory and reset the clock.

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1 Part Names

FRONT

Display
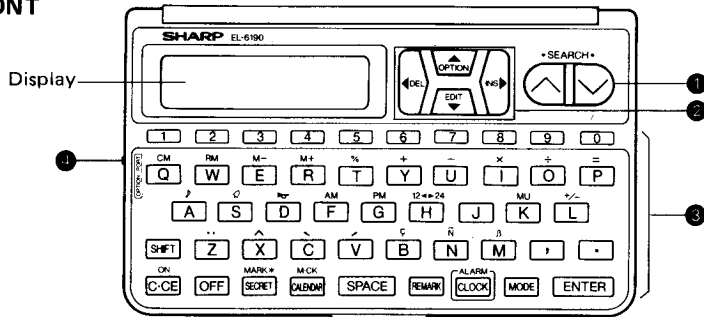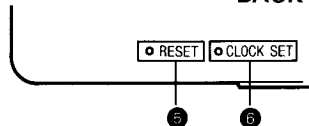
- ① **Search keys**
- ② **Cursor movement keys**
- ③ **Keypad**
- ④ **Option port**
- ⑤ **RESET switch (on the back)**
- ⑥ **CLOCK SET switch (on the back)**

In this manual, the keys are represented by symbols, for example:

$$\begin{array}{c} \text{M +} \\ \boxed{\text{R}} \end{array} \quad\longrightarrow\quad \boxed{\text{M +}} \quad : \text{Indicates the memory plus key.}$$

$$\longrightarrow\quad \boxed{\text{R}} \quad : \text{Indicates the alphabetic ``R'' key.}$$

$$\boxed{\overset{\text{EDIT}}{\blacktriangledown}} \quad\longrightarrow\quad \boxed{\text{EDIT}} \quad : \text{Indicates the Edit mode key.}$$

$$\longrightarrow\quad \boxed{\blacktriangledown} \quad : \text{Indicates the cursor down key.}$$
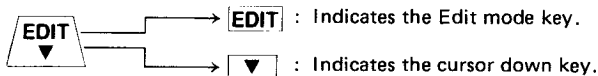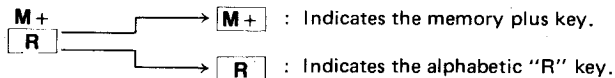
Press the **CLOCK SET** and **RESET** switches with a ball-point pen or similar object. Do not use an object with a breakable or sharp tip.

2 Display Symbols

A : Alphabetic characters, non-English characters, commas (,), dots(.), numbers, "—" and space can be entered in the name and remark entries.

▬▬ : Secret listings can be accessed.

♤ : The schedule alarm will sound.

▶▭ : The daily alarm will sound.

AM : The displayed time is morning.

PM : The displayed time is afternoon.

↑ : **More information** exists above the current display. (Press ▲ .)

↓ : **More information** exists below the current display. (Press ▼ .)

✳ : Indicates the recalled listing is secret.

SHF : Indicates **SHIFT** has been pressed.
The function or character represented on the blue parts of the keypad can be used next. **SHIFT** also has to be pressed to enter the function for ⎣ — ⎦ .

● At times, "カナ", "英", "機能" and "«①»" may appear faintly on the display. This, however, will **not** affect the operation of the EL-6190.

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3 Moving the Cursor

The cursor can be moved by $\boxed{\blacktriangleright}$, $\boxed{\blacktriangleleft}$, $\boxed{\blacktriangle}$ or $\boxed{\blacktriangledown}$.

$\boxed{\blacktriangleright}$: Moves the cursor to the right.

$\boxed{\blacktriangleleft}$: Moves the cursor to the left.

$\boxed{\blacktriangle}$: Moves the cursor to the leftmost column of the upper line.

$\boxed{\blacktriangledown}$: Moves the cursor to the leftmost column of the lower line.

• Hold $\boxed{\blacktriangleright}$ or $\boxed{\blacktriangleleft}$ for rapid movement.

4 Changing Operation Modes

The EL-6190 is equipped with four operation modes: clock, telephone, schedule, and calculator.

• Press **MODE** until the desired mode or file is displayed. The mode or file is displayed in the following order:

  TEL 1 → TEL 2 → TEL 3 → Schedule → Calculator → TEL 1 → ···· (Pressing **SHIFT** **MODE** displays the mode or file in reverse order.)

The mode changes in the following order:
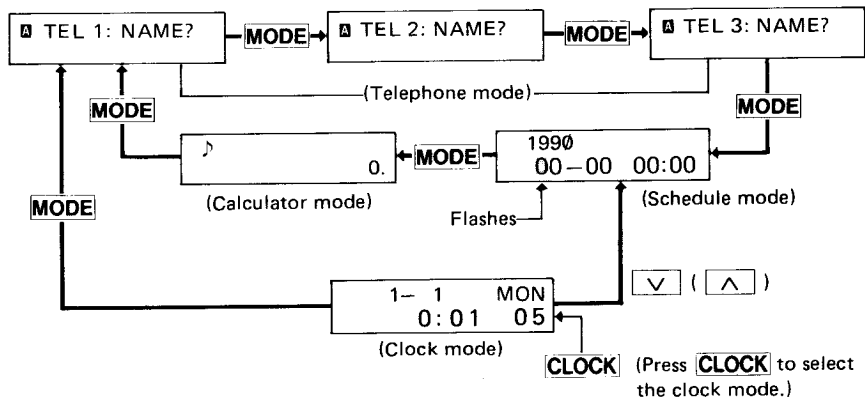
• The mode used last is entered when the power is turned on again.

5 Turning the Key Touch Tone On and Off

The key touch tone is turned on and off by pressing $\boxed{ \flat }$ when the EL-6190 is in the calculator mode.

If the tone is turned on, $\flat$ will be displayed in the calculator mode.

6 Clock Mode (Daily Alarm)

The following two screens are displayed in the clock mode:

● **Time Screen**

Date | Day of the week

```
1 -  1      M O N
     0 : 1 1    0 5
```

Hours, minutes, and seconds
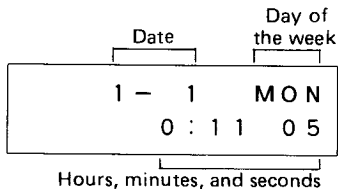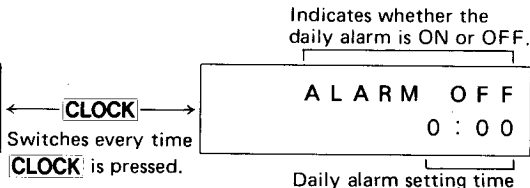
←— CLOCK —→
Switches every time CLOCK is pressed.

● **Daily Alarm Screen**

Indicates whether the daily alarm is ON or OFF.

```
A L A R M    O F F
             0 : 0 0
```

Daily alarm setting time

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1. Setting the time

The time and date are set at the same time.

Example: Setting the date and time to September 10th, 1990, and 10:05 AM

1. Press |CLOCK| to display the time screen.

2. Press the **CLOCK SET switch** on the back.

```
          Year              Date
        ┌─────┐         ┌─────────┐
         1 9 9 0          1 —  1
Flashes ────────────→ _ 0 : 1 2   1 2
                        └─────────────┘
```

Hours, minutes, and seconds
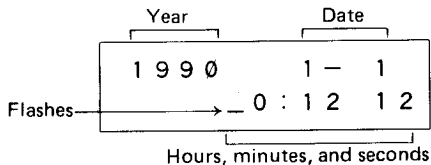
3. Press |12◆24| to select the 12-hour or 24-hour clock.
   The display switches between the 12-hour and 24-hour clocks every time |12◆24| is pressed. **AM** or **PM** is displayed for the 12-hour clock.
   (The 12-hour clock is set here.)

4. Enter the hours and minutes, respectively. *1
   | 1 | | 0 | | 0 | | 5 | |AM|
   (Enter two digits each for the hours and minutes.)
   - If the cursor is moved when making entry, the second digits will be set to "00".

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5. Enter the year, month, and date, respectively.

`►` `►` `►` `►` `0` `9` `1` `0`

Use `►` to move to the month, since there is no need to change the year (1990 is already shown). (Enter two digits each for the month and date.)

```
1 9 9 0      0 9 - 1 0
              1 0 : 0 5   0 0 ᴬᴹ
                    └── Flashes
```

6. Press **ENTER** in unison with an external time signal. The clock begins to count the seconds. ★2

```
         9 - 1 0    MON
         1 0 : 0 5   0 0 ᴬᴹ
```

● If an impossible year, month, date, or time is entered, "**ERROR!**" will be displayed momentarily when **ENTER** is pressed.

Enter the proper time and press **ENTER** again.

★1: Time can be entered either by the 12-hour or 24-hour clock, regardless of the clock system set in step 3.

★2: The day of the week is displayed as the seconds begin to count. The EL-6190 automatically determines the proper day of the week when the year, month, and date are set. The built-in calendar extends between January 1st, 1901, and December 31st, 2099.

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2. Checking the year

Press $\boxed{\text{CALENDAR}}$ to display the year when the time screen is displayed. Press $\boxed{\text{CALENDAR}}$ to return to the original display.

3. Correction

Resetting the time

1. Press $\boxed{\text{CLOCK}}$ to display the time screen.
2. Press the **CLOCK SET switch** on the back.
3. Press $\boxed{\blacktriangleright}$, $\boxed{\blacktriangleleft}$, $\boxed{\blacktriangle}$ or $\boxed{\blacktriangledown}$ to move the cursor over the number to be corrected. This number then flashes.

- If the cursor is moved when marking entry, the second digits will be set to "00".

4. Enter the correct number.
5. Press $\boxed{\text{ENTER}}$.

4. Switching the 12-24 hour clock

1. Press $\boxed{\text{CLOCK}}$ to display the time screen.
2. Press the **CLOCK SET switch** on the back. ,
3. Press $\boxed{\text{12}\blacklozenge\text{24}}$. The clock system switches between the 12-hour and 24-hour clocks every time $\boxed{\text{12}\blacklozenge\text{24}}$ is pressed.
4. Press $\boxed{\text{ENTER}}$.

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5. Daily alarm

When the clock reaches the set time, it beeps for one minute.
Press either **ALARM**, **C·CE** or **OFF** to turn off the alarm sound.

(1) Setting the daily alarm time

1. Press **CLOCK** to display the daily alarm screen.
2. Press the **CLOCK SET switch** on the back.
3. Enter the time.
4. Press **ENTER**.

   The daily alarm time is set. The daily alarm is also automatically switched on.

   • The clock system for the daily alarm time is the same as that being used for the clock.

5. Press **CLOCK** after setting is completed. The time screen will be displayed again.

(2) Turning the daily alarm on and off

The daily alarm will sound when ⤙ is displayed.
⤙ is displayed or cleared every time ⤙ is pressed while the daily alarm screen is displayed.

(3) Changing the daily alarm time

The daily alarm time is changed by setting a new time. (Refer to "(1) Setting the daily alarm time".)

7 Entering Characters

1. Entering alphabetic characters, commas (,) and dots (.)

Alphabetic characters, commas and dots can be entered in name and remark entries when **A** is displayed.

2. Entering non-English characters

Non-English characters can be entered in name and remark entries when **A** is displayed.

Non-English characters are entered by pressing an accent key followed by a vowel key.

1 Press **SHIFT** and then `··` , `^` , `` ` `` or `´` .

2 Press **A** , **E** , **I** , **O** or **U** .

The following non-English characters can be entered:
Ä, Ë, Ï, Ö, Ü, Â, Ê, Î, Ô, Û, À, È, Ì, Ò, Ù, Á, É, Í, Ó, Ú.

☆ ç, Ñ, ß can also be entered by pressing **SHIFT** **ç** , **SHIFT** **Ñ** , **SHIFT** **ß** .

3. Entering numbers

Press **0** to **9** to enter numbers.
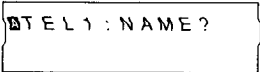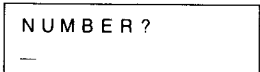
4. Entering "−", or a space

Press **SHIFT** **−** or **SPACE**

13 ● To enter "−" in the number entry, pressing **SHIFT** can be omitted.

8   Telephone Mode

In the telephone mode, a listing consists of three entries: name, number and remark. The maximum number and type of characters that can be entered is as follows:

	Display	No. of characters	Type of characters
Name entry	`TEL1:NAME?` *	12 characters	Alphabetic characters, non-English characters, comma, dot, numbers, −, space
Number entry	`NUMBER?` `_`	96 digits (8 lines)	Numbers, −, space
Remark entry	`(REMARK?    )`	10 characters	Alphabetic characters, non-English characters, comma, dot, numbers, −, space

*: "TEL2:NAME?" or "TEL3:NAME?" is displayed when TEL2 or TEL3 is selected, respectively.

1. Storing a Telephone Listing

Example 1:

Store the following listing in the TEL1 file: "EDWARDS BOB" for name, "201-265-5600" for number and "ABC CO." for remark.

1. Press **MODE** to select the TEL1 file.
   (To store the entry in the TEL2 or TEL3 file, select the TEL2 or TEL3 file by pressing **MODE** .)

   ```
   ◘T E L 1 : N A M E ?
   ```

2. Enter the name.

E	D	W	A	R	D	S

SPACE	B	O	B

   ```
   ◘E D W A R D S   B O B _
   ```

3. Press **ENTER** (or **▼**).
   (The cursor moves to the number entry.)
   • Also, when 12 characters are entered in the name entry, the cursor will move to the number entry.

   ```
   N U M B E R ?
   _
   ```

4. Enter the phone number.

| 2 | 0 | 1 | — | 2 | 6 | 5 |
| — | 5 | 6 | 0 | 0 |

```
2 0 1 - 2 6 5 - 5 6 0 0
_
```

5. Press **ENTER**.
   (The cursor moves to the remark entry.)

```
◨( R E M A R K ?        )
```

6. Enter the company name.

| A | B | C | SPACE | C | O |
| • |

```
◨( A B C   C O . _      )
```

7. Press **ENTER**.
   The name and phone number will be displayed
   temporarily, then the next entry prompt will
   be displayed.
   The telephone listing is now stored.

● Skip step 6 if nothing is to be entered in the remark entry.

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2. Recalling Telephone Listings

Telephone listings stored in the telephone mode are internally sorted according to the first character in the name entry in the following order:

Space, ",", " — ", ".", numbers, alphabetic characters.*

*: Non-English characters are sorted in the following order: English character, "··", "`", "´", "^". (Examples: A → Ä → À → Á → Â, C → Ç → D, N → Ñ → O, S → ß → T)

★ Each time **REMARK** is pressed, the name and remark entries are displayed alternately.

Before recalling listings, press **MODE** to select the desired file (TEL1, TEL2 or TEL3).

(1) Sequential search

Press ∨ or ∧ . Hold down these keys for rapid recall.

∨ : Recalls listings in forward order. ∧ : Recalls listings in reverse order.

(2) Recalling listings by first name character(s)

1 Enter the first character(s) in the name entry.

2 Press ∨ (or ∧).

Listings that begin with the entered characters are recalled.

(3) Recalling listings by remark

1 Press **REMARK**.

```
◨( R E M A R K ?        )
```

2 Press $\boxed{\vee}$ (or $\boxed{\wedge}$).

Listings with remark and number entries are displayed sequentially. The listings are recalled in the same order as (1). .

(4) Recalling listings by first remark character(s)

1 Press **REMARK**.

2 Enter the first character(s) in the remark entry.

3 Press $\boxed{\vee}$ (or $\boxed{\wedge}$).

Listings that begin with the entered character(s) are sequentially recalled.

☆ After the desired remark is recalled, pressing **SHIFT** $\boxed{\vee}$ (or **SHIFT** $\boxed{\wedge}$) recalls a listing starting from the same remark. (To recall more listings from the same remark, press $\boxed{\vee}$ (or $\boxed{\wedge}$). **SHIFT** can be omitted.)

★ In (2) or (4), if a listing that begins with the entered character(s) is not in memory, **"NOT FOUND!"** is displayed and the display returns to the entry prompt.

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3. Correction

(1) Correcting during an entry

1. Press ▶ , ◀ , ▲ or ▼ to move the cursor to the character to be corrected.

2. Enter the correct character.

3. Press **ENTER** .

   ☆ To correct a name or number when the cursor is in the remark entry, press **REMARK** to display the name or number contents and move the cursor.

   ★ Or re-enter the listing after pressing **C·CE** .

(2) Correcting a stored listing

1. Recall the listing to be corrected.

2. Press **SHIFT** **EDIT** .
   The cursor flashes.

3. Correct the listing in the same procedure as (1).

   ☆ To correct a remark, press **REMARK** to display the remark contents.

To insert characters, move the cursor to the desired location, press **SHIFT** **INS** to add a space and enter the character. To delete characters, move the cursor to the character to be deleted and press **SHIFT** **DEL** .

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9 Schedule Mode

The schedule mode is used for storing schedule information (year, month, date, hour, minutes, and schedule details) in the memory.

In this mode, a schedule listing consists of two entries: item and date. The item entry is used for entering schedule details (12 columns). In the date entry, four digits can be entered for the year and two digits each for the month, date, hour and minutes.

Alphabetic characters, non-English characters, comma, dot, numbers, "−" and space can be entered in the item entry. Numbers and space can be entered in the date entry.

1. Storing in memory

Example: Storing a schedule item (e.g., MEETING at 2:30 PM on September 28, 1990)

1. Press **MODE** to select the schedule mode.

   The year set in the clock mode will be displayed.

2. Press **▲** to move the cursor to the upper line of the display and enter the year (4 digits).

   To store a schedule listing in the same year, this step can be omitted. Schedules in the following years can be stored: 1901 to 2099.

3 Begin entry from the lower line.

`0` `9` `2` `8` `PM` `0` `2` `3`

`0` (The month, date, hour, and minutes should each consist of two digits.)

```
◨ I T E M ?
  0 9 — 2 8  0 2 : 3 0 PM
```

- After entry of the minutes, "ITEM?" is displayed.
- Time can be entered either by the 12-hour or 24-hour clock. However, when the listing is recalled, the clock system for the schedule mode is the same as that of the clock mode.
- When not entering the time, press `ENTER` (or `▼`) after entering the month and date. The time will be entered as 00:00, and "ITEM?" is displayed.

4 Enter the schedule details on the upper line.

`M` `E` `E` `T` `I` `N` `G`

```
◨ M E E T I N G _
  0 9 — 2 8  0 2 : 3 0 PM
```

5 Press `ENTER` to store in memory.
- If the user attempts to store an impossible date or time, "ERROR!" is displayed. Enter the correct date and time and press `ENTER`.
- The stored listing will be sorted in chronological order.

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2. Recall

(1) Sequential search

Press $\boxed{\vee}$ or $\boxed{\wedge}$. Hold down these keys for rapid recall.

$\boxed{\vee}$: Recalls listings in forward order. $\boxed{\wedge}$: Recalls listings in reverse order.

(2) Detail search

Press $\boxed{\text{C·CE}}$ $\boxed{\blacktriangledown}$ to move the cursor to the item entry, enter the first character(s) of the schedule details and press $\boxed{\vee}$ or $\boxed{\wedge}$ to recall that listing directly.

(3) Date search

Enter the date and press $\boxed{\vee}$ or $\boxed{\wedge}$ to recall that listing directly.

If no appropriate listing is found in the memory after a detail search or a date search, "**NOT FOUND!**" is displayed momentarily and the display returns to the entry prompt.

3. Correction

Correction is performed by the same procedure used for the telephone mode (page 19).

● To correct the year, recall the desired schedule listing and press $\boxed{\text{CALENDAR}}$ $\boxed{\text{SHIFT}}$ $\boxed{\text{EDIT}}$.

4. Checking the day of the week (day of the week confirmation function)

There are three ways to check the day of the week.

This can be performed in the schedule mode.

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(1) Day confirmation by recalling schedule items

Recall that day's schedule to confirm the day of the week, then press `CALENDAR` .

(2) Day confirmation by designating the month and date

Enter the date in the lower line, then press and hold `CALENDAR` .

(3) Day confirmation by designating the year, month, and date

Enter the month, date and year. (To enter the year, move the cursor to the upper line.)
While pressing `CALENDAR` , the day of the week will be displayed.

5. Alarms for schedule mode

The schedule mode is equipped with the following two alarms:

(1) Advance alarm

There is slow beeping for 20 seconds, 10 minutes before the designated schedule listing.

(2) Schedule alarm

There is rapid beeping for 20 seconds when the time set for a schedule listing is reached.

(3) Turning the alarms on and off

The advanced and schedule alarms will sound when " ♪ " is on the display. " ♪ " appears
and disappears each time ♪ is pressed.

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- Press either **ALARM**, **C·CE** or **OFF** to turn off the alarm sound.
- If the advanced alarm is stopped, the schedule alarm will not sound.

If two or more alarms are set at the same time, the alarm with the highest priority will sound. The order of priority is as follows:

① Schedule alarm   ② Advance alarm   ③ Daily alarm

10 Secret Function

This function is used to prevent other people from gaining access to items stored in the telephone or schedule mode. This function requires a password registration.

1. Password Registration

Up to 7 characters can be registered as the password. Spaces are valid only if they are followed by other characters.

> If the password is forgotten, it will be necessary to clear the password and all secret listings from memory. (Refer to page 35.) As a safeguard, make a written record of the password.

Example:

Register the password "ABCDEFG".

1. Press **MODE** to select the telephone or schedule mode.

2. Press $\overline{\text{C·CE}}^{\text{ON}}$ to display the entry prompt.

3. Press **SECRET** .

```
◧P A S S W O R D    S E T *
```

4. Enter the password.

   A **B** **C** **D** **E** **F** **G**

5. Press **ENTER** .
   The password is now registered. " ▬▬ " is displayed.

```
◧( A B C D E F G ) S E T
▬▬
```

6. Press $\overline{\text{C·CE}}^{\text{ON}}$.
   The display returns to the entry prompt.

* : If "**PASSWORD?**" is displayed, a password is already registered. To change or delete the password, refer to page 29.

• Only one password can be registered, but many secret listings can be entered.

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2. Turning the Secret Function On/Off

When the Secret function is off, " ▐► " is displayed. (Secret listings can be accessed.)
When the Secret function is on, " ▐► " is cleared even after the password is registered.
(Secret listings cannot be accessed.)

(1) Turning the Secret function on

1. Press **SECRET** at a telephone or schedule mode entry prompt.

```
▣O N      P W . C L E A R
▐►- 1 -        - 2 -
```

2. Press 1.
   The Secret function is now on. " ▐► " is cleared and the display returns to the entry prompt.

★ Even if the power is turned off, the Secret function is always on.

(2) Turning the Secret function off

1. Press **SECRET** at a telephone or schedule mode entry prompt.

```
▣P A S S W O R D ?
```

[2] Enter the password and press **ENTER**.
(Enter "ABCDEFG" in this case.)

A **B** **C** **D** **E** **F** **G** **ENTER**

The Secret function is now off. " ▬ " is displayed and the display returns to the entry prompt.

3. Designating Listings as Secret

"**✱**" next to a listing indicates it is secret. Secret listings will not be recalled unless the Secret function is off.

(1) Storing listings as secret

Press **SHIFT** **MARK✱** to display "**✱**" during entry and store the listing.

(2) Designating stored listings as secret

Example:

Designate the listing for Bob Edwards as secret.

[1] Recall the listing by pressing ⌵ (or ∧).

```
✱EDWARDS   BOB
201-265-5600
```

[2] Press **SHIFT** **EDIT**.

The cursor flashes.

[3] Press **SHIFT** **MARK✻**.

"✻" is displayed.

```
        ┌─ Flashes
┌─────────────────────┐
│ ▲E D W A R D S   B O B │
│ *                       │
│ 2 0 1 – 2 6 5 – 5 6 0 0 │
└─────────────────────┘
```

[4] Press **ENTER**.

The listing for Bob Edwards is now designated as secret.
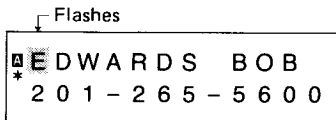
4. Recalling or Correcting Secret Listings

To recall or correct secret listings, the Secret function must first be off.

[1] Turn the Secret function off. (Refer to page 26.)

[2] Recall* or correct the listings using the same procedure as for non-secret listings. (Refer to page 17 or 22.)

*: During recall, "✻" next to a listing indicates it is secret.

★ **Recalling secret listings only (valid only for TEL1, TEL2 and TEL3 files)**

To recall only the secret listings in the selected file:

[1] Turn the Secret function off. (Refer to page 26.)

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2 Press **SHIFT** **MARK✻** at a TEL file entry prompt. "✻" is displayed.

3 Press **SHIFT** **∨** (or **SHIFT** **∧**).

The secret listings only are sequentially recalled.

5. Changing Secret Listings to Non-Secret

1 Turn the Secret function off. (Refer to page 26.)

2 Recall the desired secret listing by pressing **∨** (or **∧**).

3 Press **SHIFT** **EDIT** .

The cursor flashes.

4 Press **SHIFT** **MARK✻** .

"✻" is cleared.

5 Press **ENTER** .

The secret listing is now changed to non-secret.

6. Clearing and Changing the Password

(1) Clearing the password

1 Turn the Secret function off. (Refer to page 26.)

[2] Press `C·CE` (ON) to display the entry prompt.

[3] Press `SECRET`.

```
◨ON      PW.CLEAR
  - 1 -      - 2 -
▬
```

[4] Press `2`.

```
◨PASSWORD?

▬
```

[5] Enter the password and press `ENTER`.
(Enter "ABCDEFG" in this case.)

`A` `B` `C` `D` `E` `F` `G` `ENTER`

The password "ABCDEFG" is now cleared and the display returns to the entry prompt.*

*: " ▬ " is cleared, however, the Secret function is not on so that the secret listings can be recalled as non-secret listings.
To use the Secret function, register a new password. (Refer to page 24.)

★ To clear a forgotten password, refer to page 35.

(2) Changing the password

Clear the old password and register a new one. (Refer to page 29.)

Note

If an attempt is made to turn the Secret function off with an incorrect password, the display will appear as shown at right.

Press $\overset{\text{ON}}{\boxed{\text{C·CE}}}$ and turn the Secret function off with the correct password.

```
ⓐ P W . E R R O R !
```

11 Memory Storage

* **Checking memory storage**

1 Press **MODE** to select the telephone or schedule mode.

2 Press **SHIFT** **M·CK**.
The number of bytes in use and remaining are displayed.

```
ⓐ U S E D      R E M A I N
        5 0           8 0 9 4
```

3 Press **SHIFT** **M·CK**.
The numbers of phone listings stored in TEL1,
TEL2 and TEL3 files are displayed.

```
┌─────────────────────────┐
│ ▣   T 1     T 2     T 3  │
│     3       0       0    │
└─────────────────────────┘
```

4 Press **SHIFT** **M·CK**.
The number of schedule listings stored is displayed.

```
┌─────────────────────────┐
│ ▣               S C H   │
│                 0        │
└─────────────────────────┘
```

The EL-6190 can store up to 8144 bytes in memory (excluding the calculator mode memory). One byte is required for one character in the name, remark and schedule item entries and one byte is required for two digits in the telephone number entry. When there is an odd number of digits in a number entry, the last digit occupies one byte. Five bytes are required for a schedule date entry including the year. Five bytes are required for separator spaces in one complete telephone listing (four bytes are required if nothing is stored in the remark entry) while four bytes are required in one complete schedule listing.

☆ Each time **SHIFT** **M·CK** is pressed, the display changes to 2 , 3 and 4 .
Pressing **C·CE** displays the entry prompt.

☆ **SHIFT** can be omitted after step 2 .

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★ When ENTER is pressed and there is insufficient memory, "**FULL! NOT IN**" is displayed and entry is no longer possible. Press C·CE and either delete previously stored listings or change the listing to be stored so that it will not exceed the memory capacity. Repeat the storing procedure once again.

★ Since the same memory is used for the telephone and schedule modes, the numbers of listings available to be stored in the telephone and schedule modes will vary.

12 Clearing the Memory

1. Deleting a Listing

1 Recall the listing to be deleted.

2 Press **SHIFT** **DEL** .

Flashes ──┐

```
DELETE   OK?
```

3 Press **ENTER** .
(To cancel, press any key other than **ENTER** .)

2. Clearing a file

If the entire contents of a file (TEL1, TEL2 or TEL3) or schedule mode are unnecessary, the file can be completely cleared.

Example:

Clear the TEL2 file.

1. Press **MODE** to select the TEL2 file.
   (To clear the TEL1 or TEL3 file or schedule mode, press **MODE** to select the TEL1 or TEL3 file or schedule mode.)

```
◨T E L 2 : N A M E ?
```

2. Press **SHIFT** **DEL** .

Flashes �

```
T E L 2    D E L E T E ?
```

3. Press **SHIFT** **ENTER** .
   (To cancel, press any key other than **SHIFT** **ENTER** .)

* When "SECRET ON!" is displayed, the Secret function is on and the file cannot be cleared. Turn the Secret function off and repeat the procedure above. All secret and non-secret listings in the file selected in step 1 will also be cleared.

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3. Deleting the Password and Secret Listings

The password and all secret listings can be deleted at the same time.

1. Press **MODE** to select the telephone or schedule mode.

2. Press **SECRET**.

   One of the following will be displayed:

⏹ P A S S W O R D ?	⏹ P A S S W O R D S E T	⏹ O N P W . C L E A R ↤ - 1 - - 2 -

3. Press **SHIFT** **DEL**.

Flashes ⟶

⏹↴   R E S E T   O K ?

4. Press **SHIFT** **ENTER**.

   (To cancel, press any key other than **SHIFT** **ENTER**.)

4. Clearing All Memory Contents

1. Display the number of stored listings using the Checking memory storage procedure on Page 31.

   (Display as in step 3 or 4 of Checking memory storage.)

2. Press **SHIFT** **DEL** .

Flashes —

```
RESET   OK?
```

3. Press **SHIFT** **ENTER** .

   (To cancel, press any key other than **SHIFT** **ENTER** .)

Data in the clock mode such as the time and daily alarm time will also be cleared.

13 Data Transfer

The EL-6190 can transfer data (transmit and receive) using the optional CE-210L data transfer connector.

● CE-210L data transfer connector (optional)

☆ The EL-6190 sending data is called the "transmitter" and the EL-6190 receiving data the "receiver".

When connecting two EL-6190s:

● the EL-6190 on which **SHIFT** **OPTION** is first pressed becomes the "receiver".

● the EL-6190 on which **SHIFT** **OPTION** is next pressed becomes the "transmitter".

1. Before transferring data

1. Press **OFF** on both the transmitter and receiver to turn the power off.

2. Slide open the connector covers on both the transmitter and receiver.
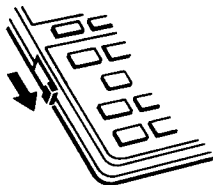
3. Properly connect the CE-210L data transfer connector. (Refer to the CE-210L CONNECTION GUIDE for details.)

4. Press $\boxed{\overset{ON}{C \cdot CE}}$ on both transmitter and receiver to turn the power on.

5. Press $\boxed{MODE}$ on the receiver to select the telephone or schedule mode.

6. Press $\boxed{SHIFT}$ $\boxed{OPTION}$ on the receiver. The receiver is in the Receive mode.
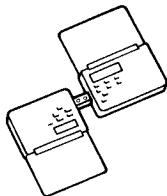
```
RECEIVE   MODE
```

★ When two EL-6190s are connected and one of them is turned off, keys on the other are inoperative.

★ Transmission does not alter any data stored in the transmitter.

★ Press $\boxed{\overset{ON}{C \cdot CE}}$ on the transmitter to stop transferring data.

★ Transmitted data will be copied to the same file in the receiver (i.e. data stored in the transmitter's TEL1 file will be copied to the receiver's TEL1 file).

2. Transferring a single listing (single data transfer)

1. Recall the desired listing on the transmitter.

2. Press **SHIFT** **OPTION** on the transmitter.

Flashes ⌐

```
SEND   OK?
```

3. Press **ENTER** on the transmitter.
All data of the recalled listing will be transmitted.
After transmission, the display returns to the previous entry prompt.

3. Transferring a file listing (file data transfer)

Example: Transfer all data in the TEL1 file.

1. Press **MODE** on the transmitter to select the TEL1 file.

2. Press **C·CE** on the transmitter to display the entry prompt.

3. Press **SHIFT** **OPTION** on the transmitter.

```
TEL      SCH
-1-      -2-
```

4 Press **1** on the transmitter to select "TEL" (file data transfer).
- To select schedule data transfer, press **2** and proceed step 6 .

```
T 1     T 2     T 3
- 1 -   - 2 -   - 3 -
```

5 Press **1** , **2** or **3** on the transmitter.
Pressing **1** selects TEL1 file, **2** the TEL2 file and **3** the TEL3 file.

6 Press **ENTER** on the transmitter.*
All data in the file selected in step 5 will be transmitted.

☆ File transfer adds the data to that already in the receiver file.

☆ The EL-6190 cannot transfer all of the data in memory at once.

* : When performing the file data transfer, if the transmitter's Secret function is on, data in secret listings will not be transmitted. To transmit data in secret and non-secret listings, turn the Secret function off (refer to page 26) and perform the transmission. The file data transfer does not transmit the password.
When transferring data in secret listings, the received secret data will be treated as non-secret if the password is not registered on the receiver. If the password is stored, the data becomes secret again.

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An I/O error ("**I/O ERROR!**" displayed) can be caused by the following:

● The connector is disconnected or there are abnormal conditions such as extraneous noise.

● $\boxed{\text{C·CE}}^{\text{ON}}$ is pressed.

● The batteries are exhausted.

● The receiver memory is full ("**FULL! NOT IN**" is displayed on the receiver.)

Press $\boxed{\text{C·CE}}^{\text{ON}}$ to cancel the I/O error.

Pressing $\boxed{\text{C·CE}}^{\text{ON}}$ on the transmitter will display the data to be transmitted next, so that progression of the transmission can be easily monitored.

● If an alarm time is turned on during data transfer, the alarm will sound after the data transfer is completed.

4. Data transfer to different models

The EL-6190 can transfer data to different models featuring the data transfer option such as the EL-Series and ZQ-Series Electronic Organizers and the Pocket Auto Dialer.

● For data transfer between models with different memory capacities, all data may not be transferred.

● For data transfer to the EL-Series Electronic Organizer or the Pocket Auto Dialer, use the optional CE-210L data transfer connector.

- For data transfer to the ZQ-Series Electronic Organizer, use the optional CE-220T data transfer cable.

14 Calculator Mode

The EL-6190 can calculate numbers of up to 10 digits.

Calculation

Press **MODE** to select the calculator mode.

Before performing a calculation, press $\overset{ON}{\boxed{\text{C·CE}}}$ $\overset{ON}{\boxed{\text{C·CE}}}$ and **CM** to clear the memory and display.

Example	Operation	Display
$(-24 + 2) \div 4 = -5.5$	24 $\boxed{+/-}$ $\boxed{+}$ 2 $\boxed{\div}$ 4 $\boxed{=}$	−5.5
$34 + 57 = 91$	34 $\boxed{+}$ 57 $\boxed{=}$	91.
$45 + 57 = 102$	45 $\boxed{=}$	102.

Example	Operation	Display
$\underline{68 \times 25} = 1700$ $\underline{68 \times 40} = 2720$	68 × 25 = 40 =	1700. 2720.
$200 \times 10\% = 20$	200 × 10 %	20.
$9 \div 36 = 25(\%)$	9 ÷ 36 %	25.
$200 + (200 \times 10\%) = 220$	200 + 10 %	220.
$500 - (500 \times 20\%) = 400$	500 − 20 %	400.
$4^6 = (4^3)^2 = 4096$	4 × = = × =	4096.
$1/8 = 0.125$	8 ÷ =	0.125
Calculate the percent change between two yearly sales figures, $620,000 one year and $500,000 the previous year.	620000 − 500000 **MU**	24.

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Example	Operation	Display
Calculate the selling price and the gross profit from a cost of $8.16 on the basis of a 15% profit on the selling price.	8.16 ÷ 15 **MU** **MU**	9.6 (Selling price) 1.44 (Gross profit)
Calculate the cost and the gross profit from a selling price of $100 on the basis of a 25% profit on the cost.	100 ÷ 25 +/− **MU** **MU**	80. (Cost) 20. (Gross profit)
25 × 5 = 125 −) 85 ÷ 3 = 28 +) 68 + 17 = 85 ———— 182	**CM** 25 × 5 **M+** 84 ÷ 3 **M−** 68 + 17 **M+** **RM**	M 125. M 28. M 85. M 182.
135 × (12 + 14) = 3510 (12 + 14) ÷ 5 = 5.2	**CM** 12 + 14 **M+** 135 × **RM** = **RM** ÷ 5 =	M 26. M 3510. M 5.2

Example	Operation	Display
$2 + \underline{3} \rightarrow 2 + 4 = 6$	2 ⌐+⌐ 3 ⌐C·CE⌐ 4 ⌐=⌐	6.
1234567891 x 145 = 179012344195	1234567891 ⌐×⌐ 145 ⌐=⌐ ⌐C·CE⌐ 	E 17.90123441 17.90123441 $(17.90123441 \times 10^{10} = 179012344100)$

Errors

When the integer part of a calculation result or any integer in the memory exceeds 10 digits, or other impossible operations are attempted, an ERROR will occur. ("**E**" will be displayed on the upper line.) Press ⌐C·CE⌐ to clear the error.

15 Battery Replacement

Batteries used in the EL-6190:

	Type	Model	Q'ty
Unit operation (main)	Lithium	CR2025	1
Memory backup	Lithium	CR2025	1

┌─Caution───────────────────────────────────
Do not remove the operating and memory backup batteries at the same time. All the
data stored in the memory will be lost.
└───

## 1. Replacing the operating battery

If the display is hard to read or neither an alarm nor key touch tone sounds, the battery is
exhausted. Replace the battery immediately. Loss or alteration of stored data may occur if
an exhausted battery is used or when replacing the battery incorrectly.
Be sure to keep a written record of all important data.

< Procedure >

1. Press **OFF** to turn the power off.

2. Remove the screw from the operating battery cover on the back of the EL-6190 and remove the cover. (Fig. 1)

3. Remove the old battery. (Fig.2)

4. Install the new battery with the plus ⊕ side up, first hooking it under the tab.

5. Replace the battery cover and the screw.

6. Press **C·CE** to turn the power on.

7. Set the clock.

Fig. 1

Memory backup battery

operating battery

Press

Fig. 2
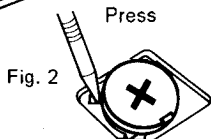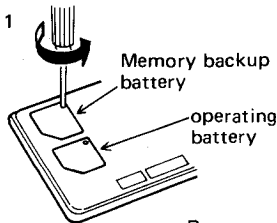
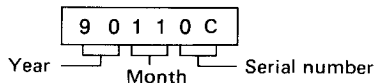## 2. Replacing the memory backup battery

The memory backup battery has a backup capacity of approximately five years at room temperature (20°C/68°F).

Replace the battery at least once every five years.

The label on the back of the EL-6190 indicates the date of battery installation at the factory. Use this date label as a reference for when to replace the battery.

Example:

If the battery was installed in November 1990, the following label would be on the EL-6190:

```
9 0 1 1 0 C
```
Year ⎯⎯⎯ Month ⎯⎯ Serial number

Note

Extreme conditions may shorten battery life and the stored data may be altered or lost.

* When replacing the memory backup battery, make sure that the operating battery is not exhausted.

  If the operating battery is exhausted, replace it before replacing the memory backup battery.

  If the operating battery is exhausted and the memory backup battery is replaced, the stored data may be altered or lost.

< Procedure >

Replace the memory backup battery using the same procedure as in "**1. Replacing the operating battery**" on page 46.

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3. Battery handling notes
- Make sure the new batteries are the correct type.
- Replace the memory backup battery at least once every five years.

4. Battery handling precautions
- Keep the batteries out of the reach of children.
- The batteries in the EL-6190 were installed at the factory; they may expire before the time noted in the specifications.
- Worn batteries left in the EL-6190 may leak and damage the EL-6190.
- Explosion risk may be caused by incorrect handling.

Automatic Power-Off Function
If no keys are pressed for approximately 7 minutes, the power will automatically turn off to conserve the batteries. The memory contents will remain intact. (The actual power-off time may vary depending upon the condition of use.)

16 Specifications

Model:	EL-6190
Display:	Upper line: 12 columns (characters), 2 columns (symbols)
	Lower line: 12 columns (characters), 2 columns (symbols)
Memory capacity:	8144 bytes

< Clock Mode >

Crystal oscillation frequency:	32,768 Hz
Accuracy:	±30 seconds/month (at 25°C/77°F)
Displayed information:	Year, month, date, day of the week, hour, minutes, seconds, AM/PM
Clock system:	Switchable from a 12-hour clock to a 24-hour clock

< Telephone Mode >

Functions:	Entry and recall of names, numbers and remarks

< Schedule Mode >

Functions:	Entry and recall of schedule (details, year, date, time) and day of the week confirmation

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< Calculator >

Digits:	10
Functions:	Key touch tone on/off, arithmetic, memory, percent and markup calculations

< General specifications >

Power supplies:	Operating battery: $3V \overline{\cdots}$ (DC) (lithium battery CR2025 x 1)
	Memory backup battery: $3V \overline{\cdots}$ (DC) (lithium battery CR2025 x 1)
Power consumption:	0.003W
Battery life:	For operating battery, approximately 1 year at an ambient temperature of $20°C$ ($68°F$), with the following daily use: 30 minutes display, alarm sounding for 20 seconds and key touch tone turned on/off 100 times.
	For memory backup battery, approximately 5 years (at $20°C/68°F$).
Operating temperature:	$0°$ to $40°C$ ($32°$ to $104°F$)
Dimensions:	When opened 133.5(W) x 156(D) x 8.1(H) mm
	(5-1/4''(W) x 6-1/8''(D) x 1/32''(H))
	When closed 133.5(W) x 80(D) x 11.6(H) mm
	(5-1/4''(W) x 3-1/8''(D) x 7/16''(H))
Weight:	90 g (0.2 lb.) (including batteries)
Accessories:	2 lithium batteries (installed) and operation manual