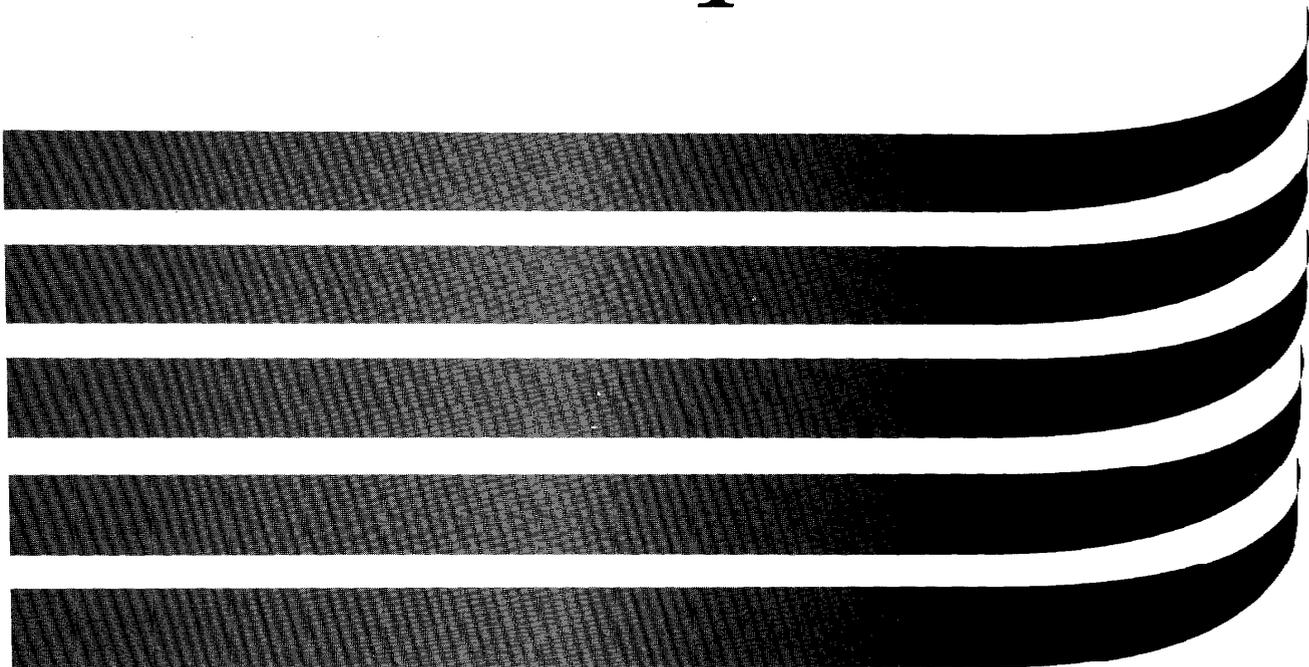


**brother**®

*WhisperWriter*™



---

Owner's Manual

WP-7400J  
WP-7550J  
WP-7550J PLUS

U.S. English

*Thank you . . . for choosing the Whisperwriter, Brother's Ink-jet Word Processor, which is designed to deliver years of reliable operation. Please read this manual carefully and keep it in a safe place for future reference.*

#### **FCC NOTICE**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Brother Industries, Ltd. could void the user's authority to operate the equipment.

#### **DOC NOTICE**

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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# 1 Getting Started

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This chapter provides general information about the Whisperwriter and its software. The topics covered are:

- Parts
- Precautions
- Set Up
- Feeding Paper
- Optional Cut Sheet Feeder
- Ink-jet Cartridge
- Diskettes
- Keyboard
- Operation Overview
- Supplemental Programs

The remaining chapters describe each of the applications available on the Whisperwriter. The Appendix provides clip art samples, technical data, troubleshooting, and a glossary.

## How to Use This Manual

*Information in this column describes helpful hints, restrictions, and ways to avoid difficulties.*

Notes are located in the left hand column. They provide facts that will help you use your Whisperwriter more efficiently. An example note is located to the left of this paragraph.

Please pay close attention to the following sample **CAUTION** and **WARNING** notices in this manual. They will alert you to potential damage to your Whisperwriter or danger to yourself. The following examples show you what the **CAUTION** and **WARNING** notices look like.



### **CAUTION**

**Failure to pay attention to caution notices can result in damage to the equipment or loss of valuable data in the memory or on the diskette.**



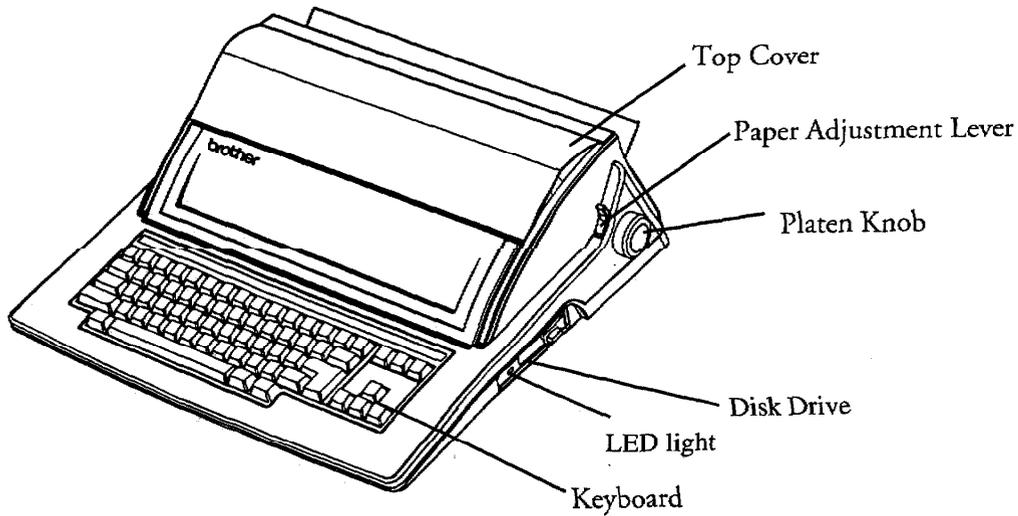
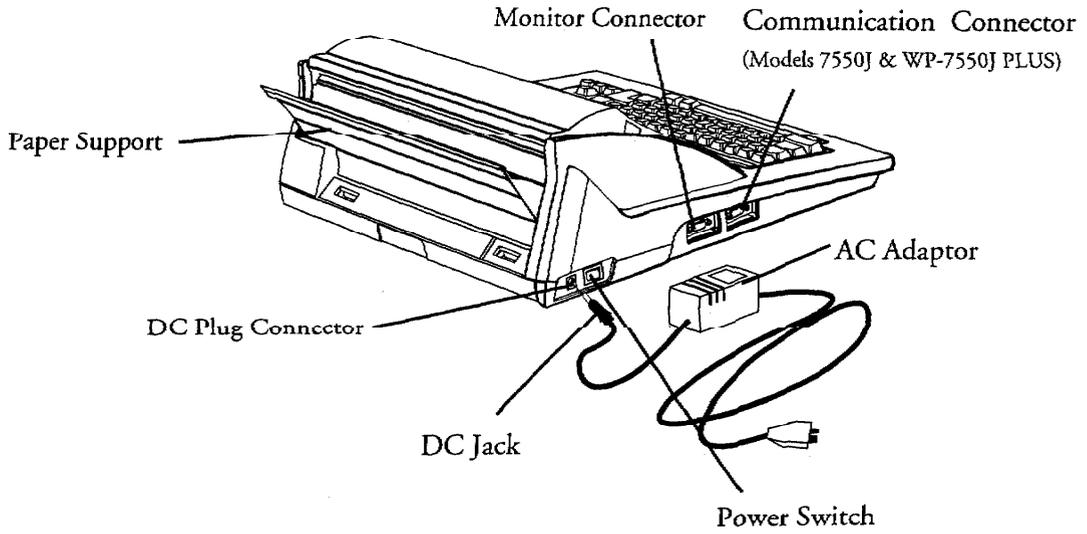
### **WARNING**

**Warnings are for your safety. Failure to pay attention to warning information can be dangerous to you and others.**

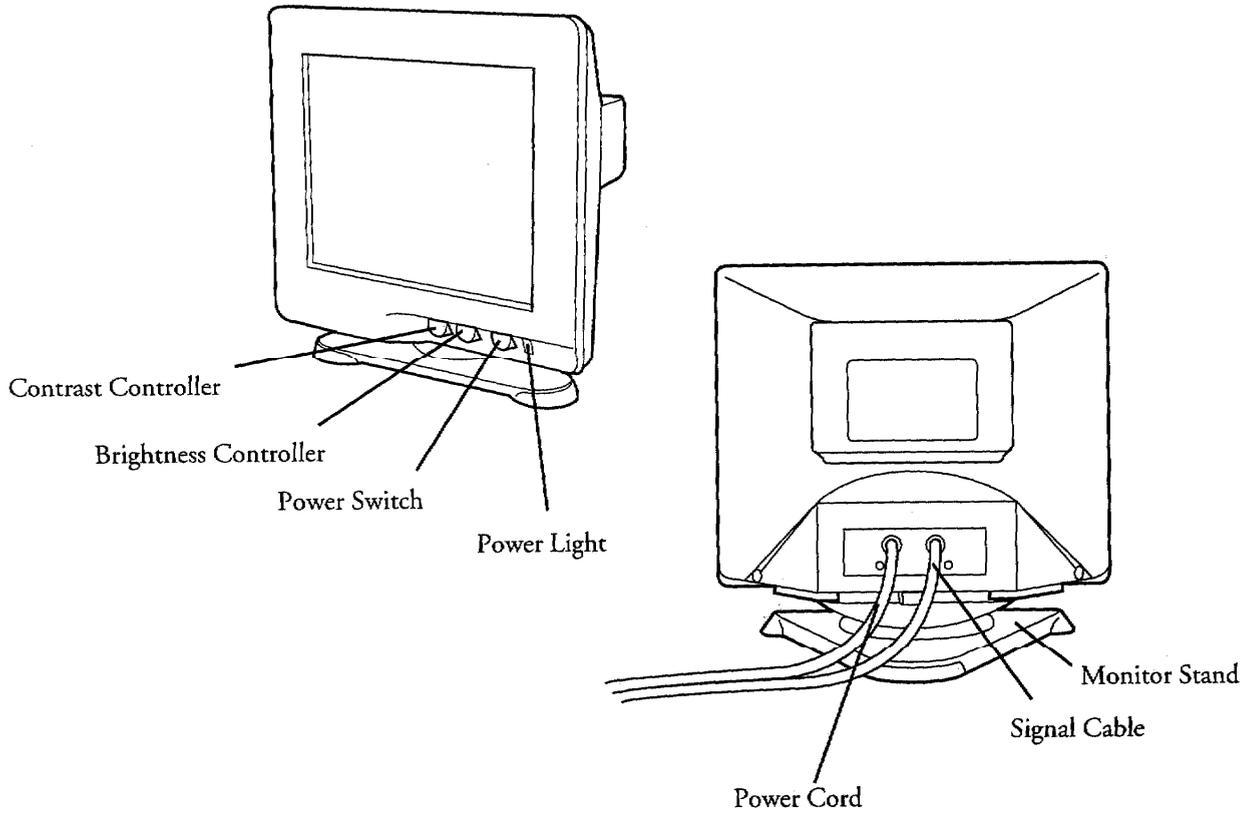
# Parts of Your Whisperwriter

---

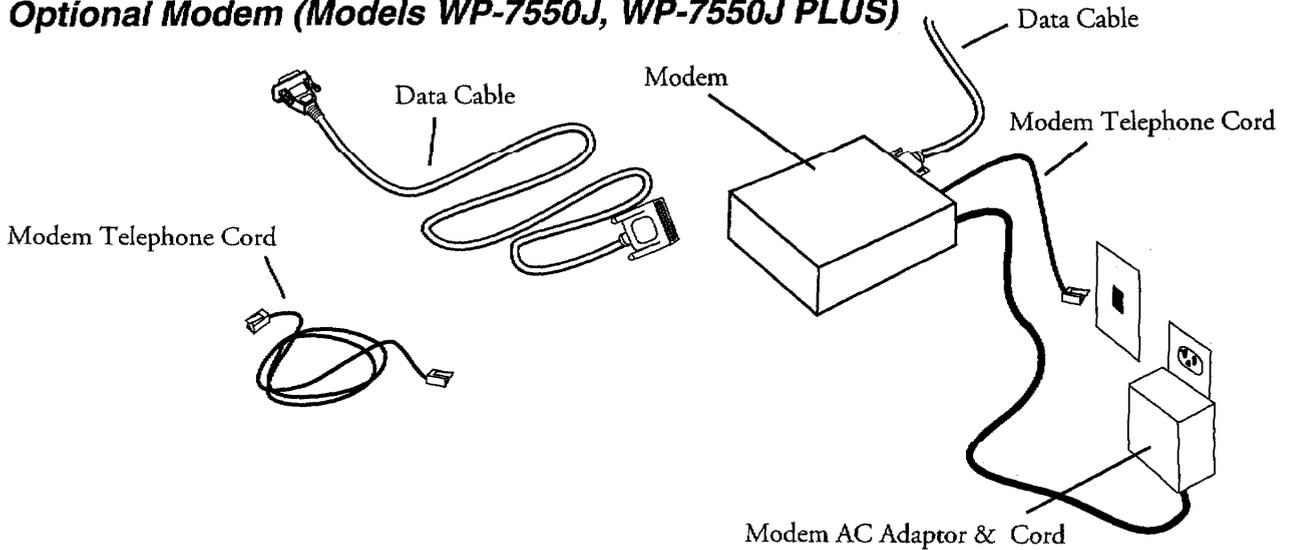
## Main Unit



# Monitor



# Optional Modem (Models WP-7550J, WP-7550J PLUS)



# Precautions

---



## **WARNING:**

**Electrical shock hazard. Do not try to take apart or repair this equipment yourself. Service should be performed by authorized Brother service personnel only. In case of malfunction, overheating, or other problems, immediately disconnect the electrical plug to reduce the risk of fire. Contact your nearest authorized Brother Service Center.**



## **CAUTION:**

- Do not pull on the power cord or the signal cable. To disconnect it, always grasp the plug itself.
- Avoid direct exposure of the equipment to sunlight and other sources of heat, excessive moisture or dust.
- If you spill any liquid onto the equipment, immediately unplug the system and consult your Brother Service Center.
- Do not use sprays in the vicinity of the Whisperwriter. Aerosols are extremely harmful to the disk drive.
- Unplug the equipment during a thunderstorm.
- Do not place heavy objects on the keyboard.
- Keep the back and sides clear of obstructions to prevent overheating.
- Use only a soft, dry cloth to clean the equipment (do not use chemicals, solvents or detergents).
- To avoid electrical interference, do not place the Whisperwriter close to a radio receiver or television. If the Whisperwriter is close to a television set, the disk drive may not work properly. For the same reason, avoid placing the monitor too close to the Whisperwriter.
- If you switch the Whisperwriter off, wait at least 10 seconds before switching it on again. Failure to wait 10 seconds may disrupt the start-up sequence, resulting in faulty operation and possible hardware damage.
- Do not turn the Whisperwriter off while printing.
- Check under the top cover that the ink-jet cartridge (under the top cover) has moved back to its right-most position before you turn the power off. If you notice that the cartridge has not moved to its right-most position, turn the power on again. The cartridge should now be correctly positioned and you can turn the power off.
- Never try to manually move the ink-jet cartridge from side to side.

## Set Up

---



### **WARNING:**

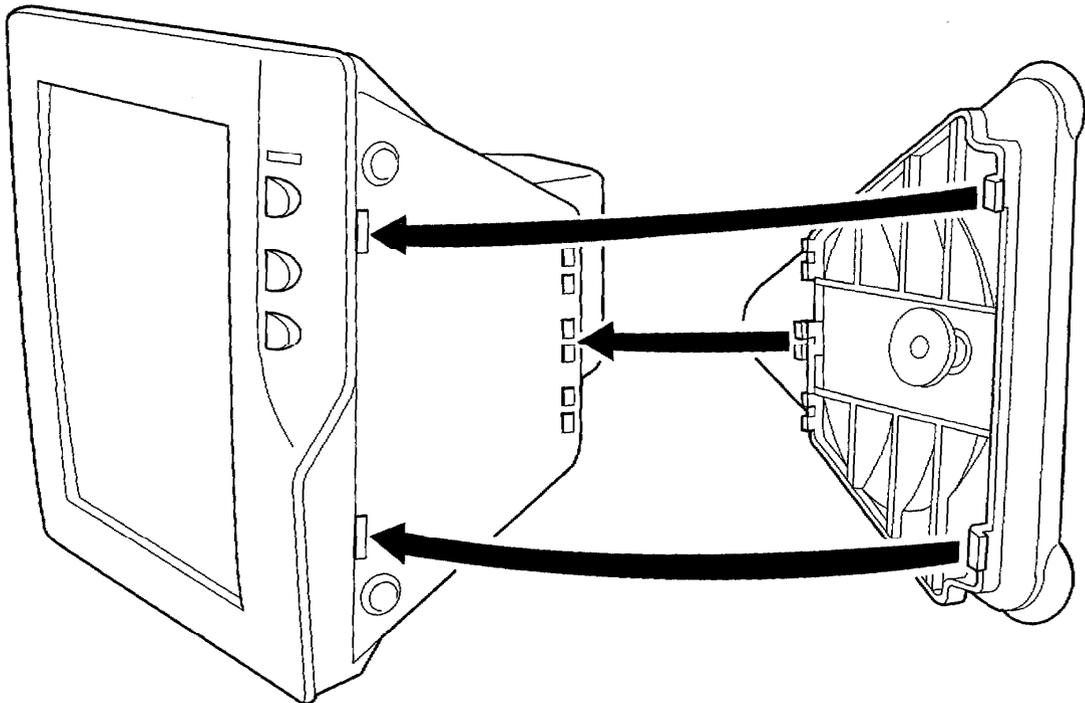
**Do not plug your Whisperwriter or monitor into an electrical outlet until you have completely assembled it.**

### **Attaching the Monitor Stand**

Before making electrical connections, attach the monitor stand to the monitor:

1. Carefully set the monitor on its side as shown below.
2. Align the hooks on the monitor stand with the matching slots in the base of the monitor.
3. Slide the monitor stand toward the front of the monitor until the stand clicks into the locked position.
4. Set the monitor on its stand.

You can now tilt and rotate the monitor.



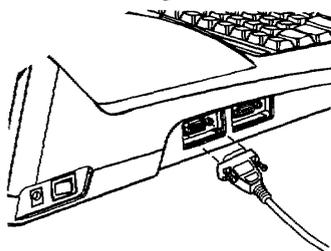
## Connecting the Equipment



### CAUTION:

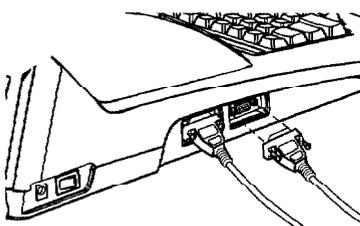
Before plugging the Whisperwriter or monitor into an electrical outlet, connect the monitor and the modem to the Whisperwriter.

### Connecting the monitor



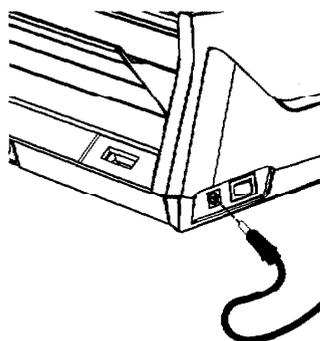
1. Push the monitor signal cable connector into the monitor connector. The monitor connector is located on the left side of the Whisperwriter.
2. Tighten the monitor signal cable connector's screws into the monitor connector to secure the monitor signal cable.

### Connecting the optional modem (Models WP-7550J and WP-7550J PLUS)



1. Push the modem data cable into the communication connector.
2. Tighten the modem data cable connector's screws into the communication connector.
3. Insert the modem telephone cord into the auxiliary socket of a telephone or into a telephone outlet.

### Connecting to power



1. Connect the DC jack into the DC plug connector.
2. Plug the monitor power cord and the AC adaptor power cord into an electrical outlet.
3. Press the green power button to turn on the monitor. If the power light does not glow, check the power cord.
4. Press the power switch on the left-rear side of the Whisperwriter to turn it on. If the system does not respond, check the power cord.
5. Adjust the screen brightness and contrast with the control knobs on the front of the monitor until the characters on the screen are easy to read. *If any key has not been pressed for five minutes, the screen will change to a "screen saver" to protect the screen. To return to the previous screen, press **SHIFT** or **CODE**.*

You can reverse the display from white to black and black to white by pressing the **CODE + SHIFT + R**.

# Feeding Paper

You have three ways to feed paper for printing:

- manually, one sheet at a time from the paper support on the back of the Whisperwriter (See below)
- manually, one sheet at a time from the front paper tray of the optional cut sheet feeder (See page 12)
- automatically, up to 30 sheets from the back paper tray with the optional cut sheet feeder (See page 10)

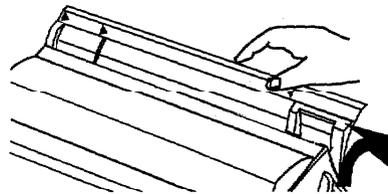
## Manual Paper Feeding with the Paper Support (no cut sheet feeder)



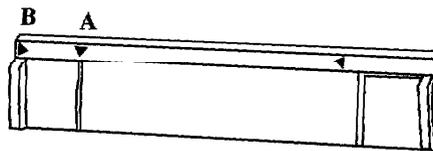
### CAUTION

**Do not use the platen knob to insert paper. For proper paper insertion, you must use the P INS key.**

1. Turn on the Whisperwriter and open the paper support.

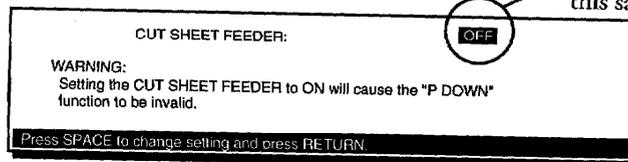


2. Center a sheet of paper in the insertion slot using the marks on the paper support. If paper width is less than 10.55 inches (letter-size and A-4), align the paper with mark A. If paper is wider, use mark B.



*The ON selection tells the Whisperwriter that you have a cut sheet feeder installed and that you would like to use it for feeding paper. OFF tells the Whisperwriter that either you do not have a cut sheet feeder installed, or that you are using manual paper feeding with the cut sheet feeder.*

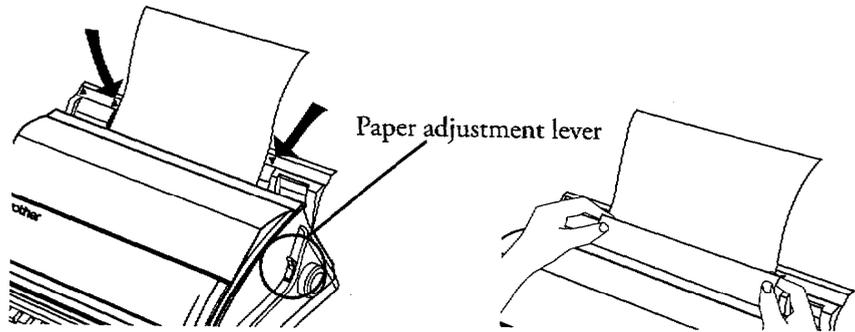
3. Press **P INS** to automatically advance the paper to the printing position. When you press **P INS** for the first time after switching the Whisperwriter on, this message will appear:



4. Press the **SPACEBAR** to select OFF; then press **RETURN**.

5. If paper appears crooked, press **P INS** again. Release the paper by pushing down on the paper adjustment lever. Slide the top of the paper slightly to align the top and bottom edges. Then raise the paper adjustment lever. Press **CODE + P DOWN** until the paper is just starting to enter roller bar.

To change printing position, hold down **CODE** and press **P UP** or **P DOWN**.



6. If paper is still not aligned properly, press and hold **CODE + P UP** to take the paper completely out. Then reinsert the paper where you want it.

## Optional CF-710 Cut Sheet Feeder

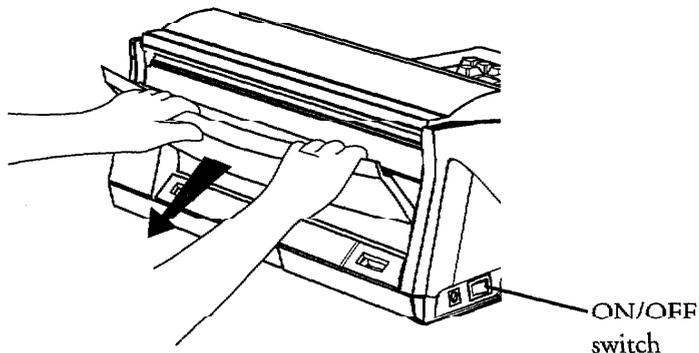
---

This section will help you install and load paper into the cut sheet feeder.

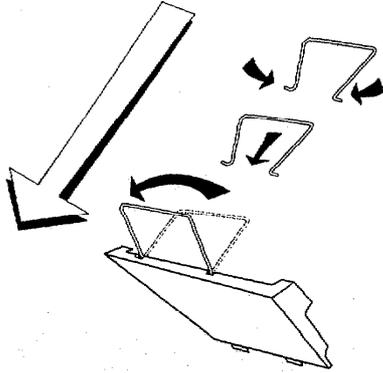
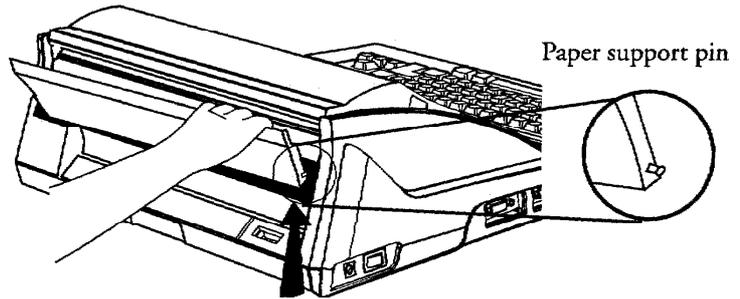
A CF-710 cut sheet feeder is available for your Whisperwriter. The cut sheet feeder allows you to load up to 30 sheets of 20lb. paper for automatic feeding.

### Installing the Optional Cut Sheet Feeder

1. Turn off the Whisperwriter main unit and monitor. Turn the main unit around so that the back of the machine is facing you.
2. Flip open the paper support on the back of the machine and slightly bend it in the center until one of the plastic pins on either end is free.

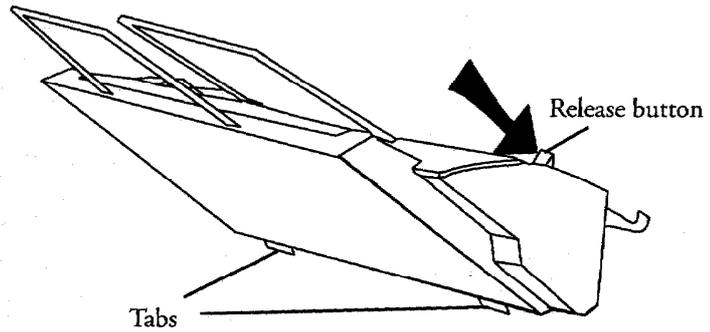


3. Carefully pull the free end of the paper support out of the word processor and then the other. Lift the paper support off of the back.

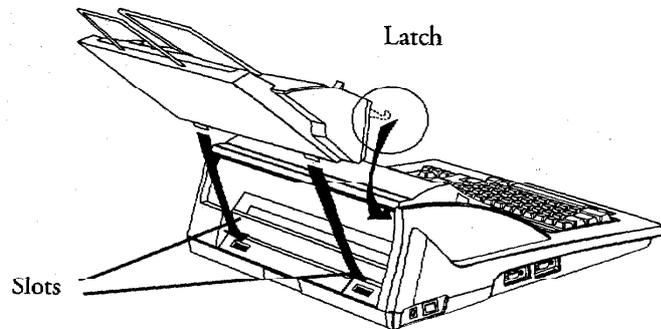


4. Insert the wire paper holders into the holes on the cut sheet feeder.

5. Push down on the release button and hold it down while you gently position the two tabs over their slots on the back of the Whisperwriter. Let go of the release button



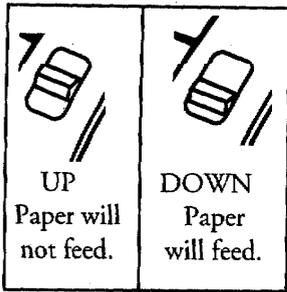
6. Slide tabs into slots until you hear or feel a click.



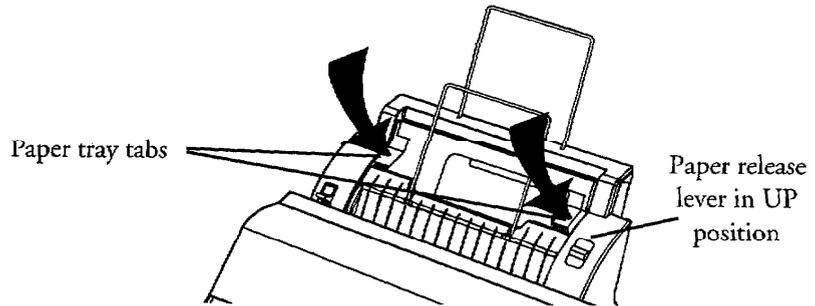
7. Test the fit of the cut sheet feeder by gently pulling the cut sheet feeder away from the unit. *It should remain firmly attached.*

## Automatic Paper Feeding (with cut sheet feeder)

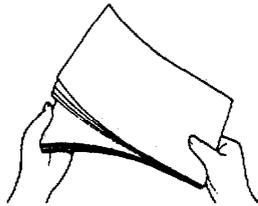
### Paper Release Lever Positions



1. Push down on the tabs on both sides of the paper tray to move the paper release lever into the UP position. (See figure at left.)



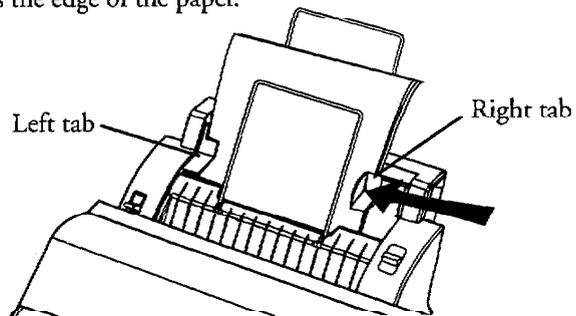
2. Turn the Whisperwriter on and wait for the Main Menu screen to appear.
3. Pick up no more than 30 sheets of 20 lb. letter or A4-size paper.
4. Fan the paper before loading it.
5. Load the paper into the paper tray.
6. Align the paper with the left tab and slide the right tab over it until it almost touches the edge of the paper.



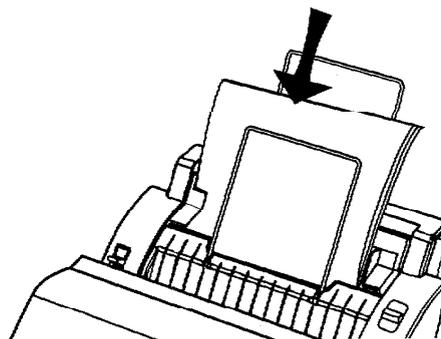
*Paper recommendations:  
high quality bond, 16-24 lb.*

*Paper will not feed properly if  
there is too much in the tray.  
Do not exceed the 30 sheet  
limit.*

*Avoid using glossy or slick  
paper in the paper tray  
because it can cause paper  
jams.*

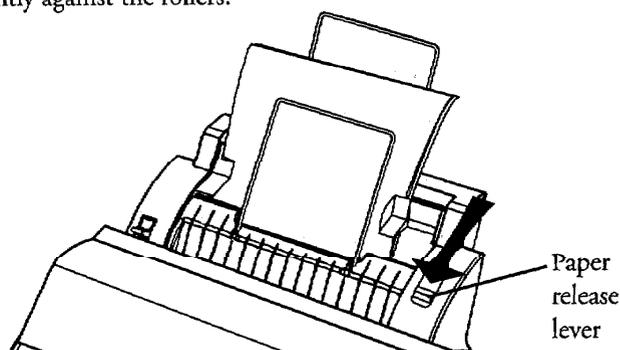


7. Tap the edges of the paper stack to align the edges.



To manually insert single sheets of paper, see next page.

8. Pull down on the release lever (on the right side of the paper feeder) to hold paper tightly against the rollers.



9. When you are ready to print:
  - For Word Processing, Spreadsheet, and Addressbook, choose CUT SHEET FEEDER: ON in the Print dialog box when you are ready to print.
  - In the Typewriter application, before typing, press **MENU** and select Feeder. Press **C** to bring up the cut sheet feeder dialog box. Using the **SPACEBAR**, choose ON. Press **RETURN**. Before typing, press **P INS** to insert paper.

*Paper will feed automatically.*

## **Precautions when Using the Cut Sheet Feeder**

Please note the following cautions when using your Whisperwriter and Cut Sheet Feeder.

- *Before turning on the Whisperwriter, make sure that the paper release lever is in the up position. If not, press the tabs on the tray until the release lever is in the up position. This prevents the cut sheet feeder from feeding paper before the Whisperwriter is ready to receive it.*
- *If the cut sheet feeder is removed and reinstalled while the Whisperwriter is on, you will need to feed a "reset" page before printing again. Press **P INS**, wait, and then **CODE + P UP** until one blank sheet is fed completely through the cut sheet feeder. Now it is ready for normal operation.*
- *With CUT SHEET FEEDER set to ON, do not reverse an inserted sheet of paper more than 3/8" (9.5 mm) with the platen knob. (**P DOWN** will not work with CUT SHEET FEEDER set to ON in a dialog box). If you reverse the paper more than that, the automatic cut sheet feeder may feed a second sheet of paper while the first sheet of paper is still in the Whisperwriter.*

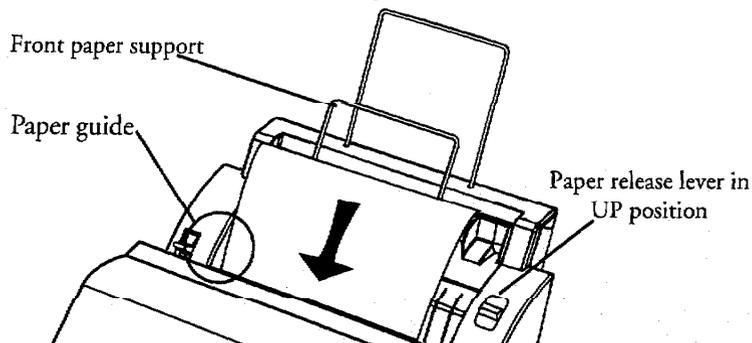
## Manual Paper Feeding (with cut sheet feeder)



### CAUTION

Do not use the platen knob to insert paper. For proper paper insertion, you must use the **P INS** key.

1. Push the paper tray tabs down until the paper release lever is in the UP position. (See Step #1, page 10.)
2. Remove paper from the cut sheet feeder.
3. Place a sheet of paper in front of the front paper support on the cut sheet feeder. Slide the paper against the paper guide on the left.

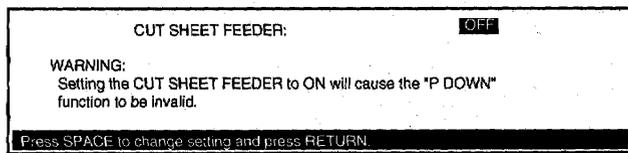


The default setting is **CUT SHEET FEEDER: OFF**. When you switch the Whisperwriter off and on, the setting will revert back to **OFF**.

4. Choose one of these methods of turning off the automatic paper feeding.

- *Method 1 - If you have turned the Whisperwriter off and back on again,*

Press **P INS**. When you press **P INS** for the first time after switching the Whisperwriter on, this message will appear:



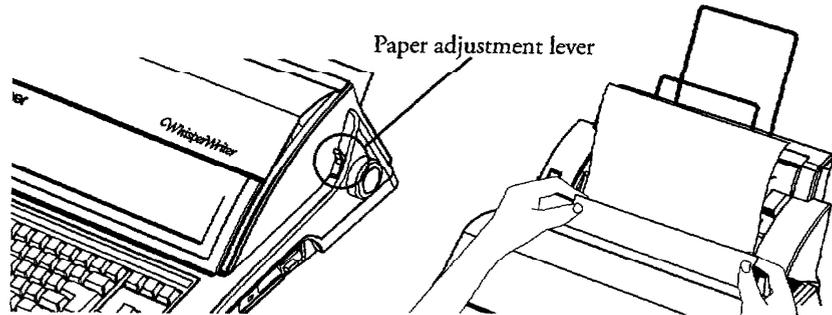
Press the **SPACEBAR** to select **OFF**; then press **RETURN**. Go to step 5.

- *Method 2 - If you are switching from automatic to manual single sheet feeding with the cut sheet feeder, and have not turned the Whisperwriter off:*

In Word Processing, Spreadsheet, and Addressbook: When ready to print, press **MENU** and then press **P**. Use the cursor keys to move to the **CUT SHEET FEEDER** response. With the **SPACEBAR**, select **CUT SHEET FEEDER: OFF**. Press **P INS** and then press **RETURN**.

In Typewriter: Press **MENU**; then select Feeder and press **C**. Use the cursor keys to move to the **CUT SHEET FEEDER** response. With the **SPACEBAR**, select **CUT SHEET FEEDER: OFF**. Press **RETURN** and then press **P INS**.

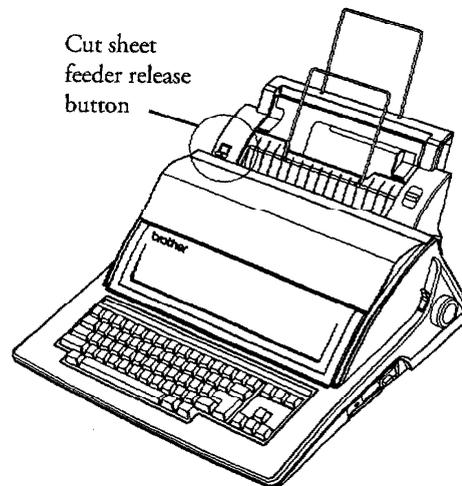
5. Adjust the paper position up and down by holding down **CODE** and pressing **P UP** or **P DOWN**.
6. If paper appears crooked, press **P INS** again. Release the paper with the paper adjustment lever. Slide the top of the paper slightly to align the top edges. Then move the paper adjustment lever back into position.



7. Press **CODE + P DOWN** to reposition paper.

### ***Removing the Optional Cut Sheet Feeder***

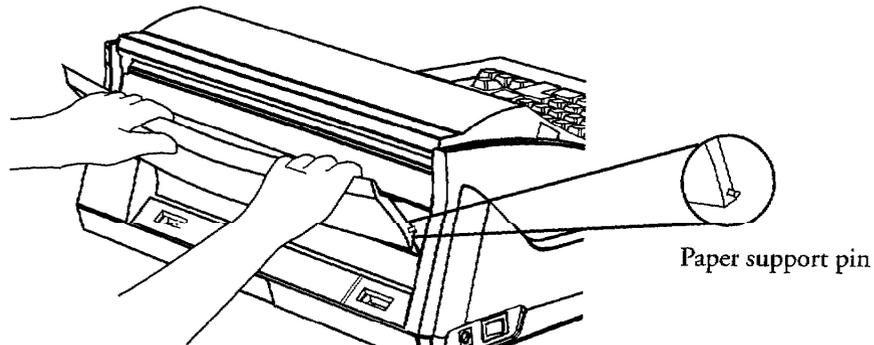
1. Turn off the Whisperwriter.
2. Push down on the cut sheet feeder release button.



3. Slightly turning the top of the cut sheet feeder toward the front of the Whisperwriter, lift the back of the cut sheet feeder.
4. Slide the cut sheet feeder out of the Whisperwriter.
5. Reinstall the paper support (see next page).

## Reinstalling the Paper Support

1. Bending the paper support slightly in the center, carefully insert one of the pins on the paper support into the hole on the back of the Whisperwriter.
2. Keeping the paper support bent, insert the other end into the other hole.
3. Turn the Whisperwriter on and wait for the Main Menu screen to appear.



## Ink-Jet Cartridge

---

### **WARNING:**

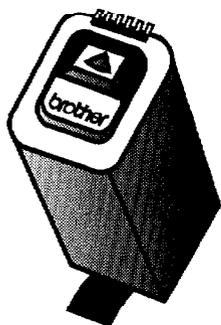
**Keep used and new ink-jet cartridges out of reach of children. Avoid contact between cartridge and face, eyes, skin, and clothing.**



Your Whisperwriter uses a replaceable ink-jet cartridge that contains both the print head and ink. This cartridge will need to be replaced after approximately 1,000,000 characters (estimated using normal text in 12 point, Brougham font).

Follow these precautions to ensure maximum life of your ink-jet cartridge:

- To prevent a cartridge from drying out, never open the sealed pack until you are ready to install the cartridge.
- Install the cartridge immediately after you remove the tape from it. If you set the cartridge aside for an extended period, the cartridge head may dry out.
- The head of the cartridge is covered with wet ink. Never touch the head of the cartridge, and never let it touch any other surface.
- To prevent leakage from the print head, do not shake the cartridge after it has been removed from its pack.
- Store the new print cartridge in the same environment as the Whisperwriter.
- Do not expose cartridges to direct sunlight. Store them at a temperature lower than 40° C (104° F).
- To transport the Whisperwriter by air, take out the ink cartridge and install a new one at your destination.



- To move the unit, handle it carefully. Do not jar or turn it sideways with an ink cartridge in place.
- We recommend that you use cartridges within one year of installation to assure high print quality.

## Installing/Replacing an Ink-Jet Cartridge

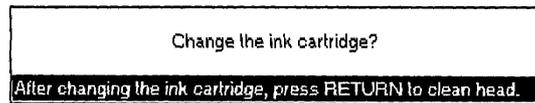
In this section, you will learn how to install an ink-jet cartridge and to replace a used ink-jet cartridge.

### Installing the first ink-jet cartridge

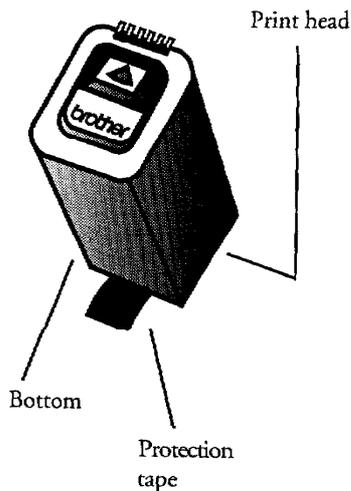
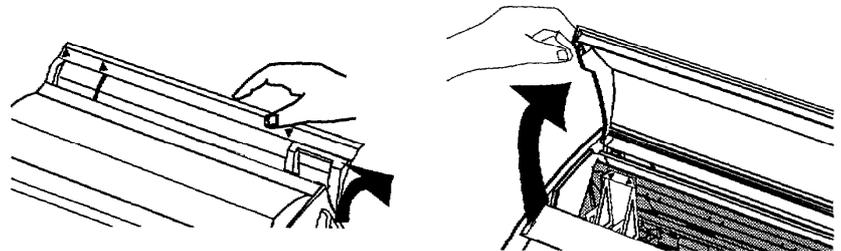
When you set up your Whisperwriter for the first time, you will need to install the ink-jet cartridge.

You have 5 minutes to install or change the ink-jet cartridge before the bracket automatically returns to the right hand position.

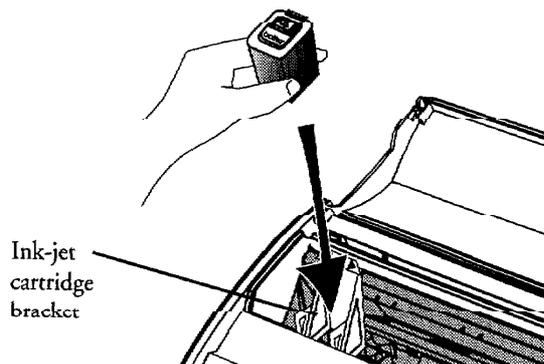
1. Turn the Whisperwriter on.
2. Press **CODE + INK CHG**. The ink-jet cartridge bracket will move to its ink change position (Left side). Do not move the cartridge manually from side to side. This message will appear:



3. Open the paper support and the top cover.

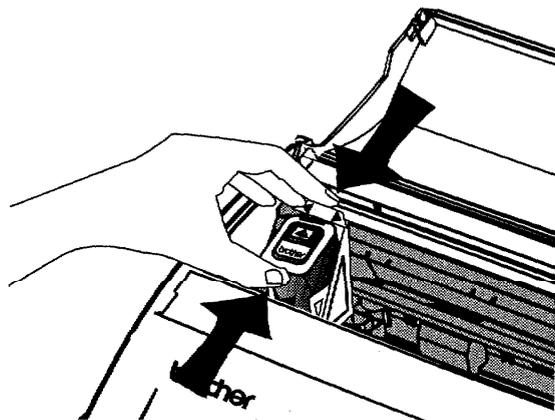


4. Tear open the ink-jet cartridge pack and remove the new cartridge.
5. Carefully remove the protection tape from the print head before installing. Do not shake the ink-jet cartridge after the protection tape is removed.
6. Slide the cartridge into the ink-jet cartridge bracket.



You will not be able to print if the cartridge is not correctly locked.

7. Squeeze the ink-jet cartridge bracket and cartridge together until the cartridge snaps under the latch on the bracket.

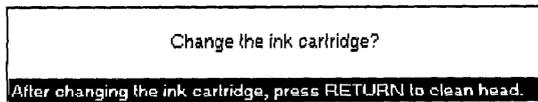


8. Press the **RETURN** key. *The ink-jet cartridge is ready to use.*
9. Close the top cover.

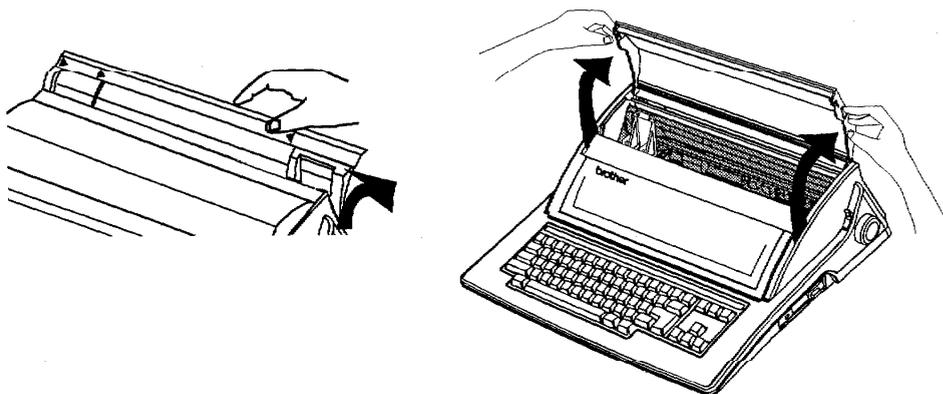
## Replacing a used ink-jet cartridge

You have 5 minutes to install or change the ink-jet cartridge before the bracket automatically returns to the right hand position.

1. Press **CODE + INK CHG**. *The cartridge will move to the left; the ink change position. Do not move the cartridge manually from side to side. This message will appear:*



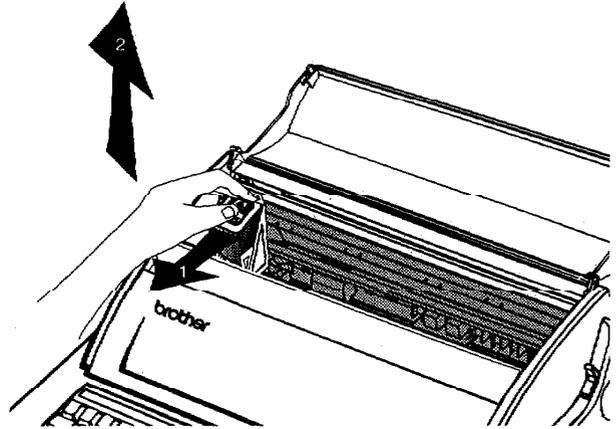
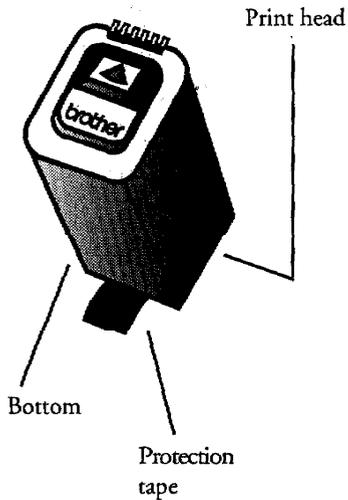
2. Open the paper support and the top cover.



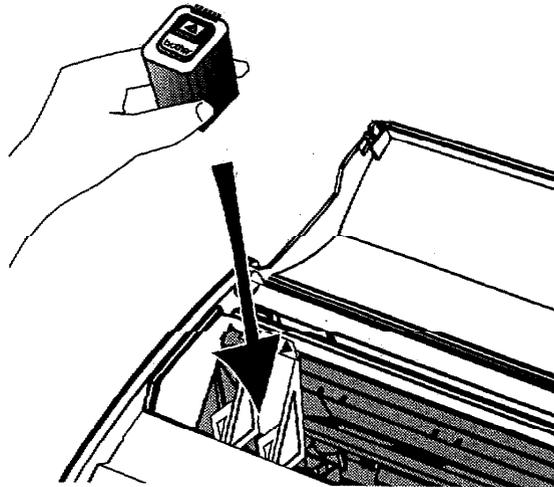
3. Grasp the ink-jet cartridge as shown below and pull towards you (1). Then pull the cartridge straight up (2). To avoid getting ink on your hands, do not touch the bottom of the cartridge.

**Alternate method of ink-jet cartridge removal:**

*Pull up on the latch that holds the ink-jet cartridge in place and pull the cartridge toward you and then up.*

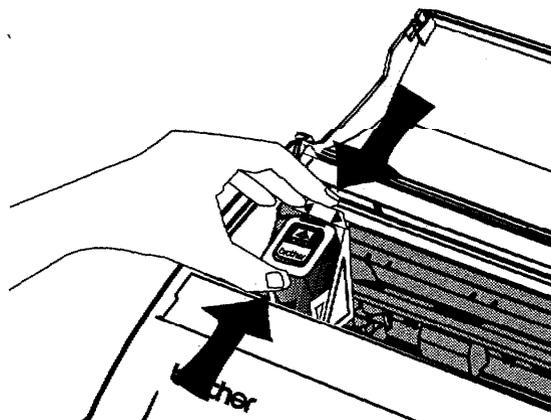


4. Dispose of the old cartridge immediately.
5. Tear open the ink-jet cartridge package and remove the new cartridge.
6. Carefully remove the protection tape before installing. Do not shake the ink-jet cartridge after the protection tape is removed.
7. Slide the ink-jet cartridge into the cartridge bracket.



8. Squeeze the ink-jet cartridge bracket and cartridge together until the cartridge snaps under the latch on the bracket.

*You will not be able to print if the cartridge is not correctly locked.*



9. Press the **RETURN** key. *The ink-jet cartridge is ready to use.*
10. Close the top cover.

## **Cleaning the Print Head**

From time to time, you may need to clean the print head. You should clean the print head when:

- the ink on the page looks splotchy or messy
- blank spaces appear on the page

To automatically clean the print head, press **CODE + SHIFT + INK CHG**. *The cartridge will move slightly to the left and then back to the right.*

## **Cleaning the Print Cartridge Nozzles and Contacts**

If print quality does not improve after cleaning the print head, the problem may be caused by dried ink on the nozzles, contacts, or the print cartridge bracket contacts.

1. Remove the ink-jet cartridge. (See instructions on page 16.)
2. Gently clean the entire copper-colored area, including the nozzles and contacts with a clean cloth, dampened with water only.  
  
To dissolve any dried ink, hold the damp cloth against the nozzles for about three seconds. Gently blot and wipe dry.
3. Allow the copper-colored area to dry.
4. Reinstall the ink-jet cartridge and press **RETURN**. Then press **CODE + SHIFT + INK CHG** and close the cover.

If the Whisperwriter is still not printing correctly, clean the bracket contacts in the printer.

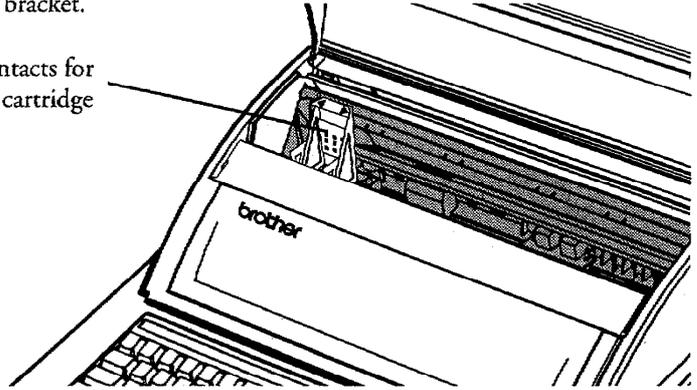
*Do not use a paper towel for cleaning because it can leave tiny fibers that can clog nozzles and cover contacts.*

## Cleaning the Bracket Contacts in the Printer

*Do not use a paper towel for cleaning because it can leave tiny fibers that can clog nozzles and cover contacts.*

1. Press **CODE + INK CHG** to move the ink-jet cartridge bracket to the left side of the carriage.
2. Without turning the Whisperwriter off, unplug the DC jack from the DC plug connector on the left rear wide of the Whisperwriter. (This will keep the ink-jet cartridge in the left-hand position.)
3. Turn the power switch off.
4. Remove the ink-jet cartridge. (See page 16.)
5. Use a clean, dry cloth to clean the contacts on the inside of the ink-jet cartridge bracket.

Bracket contacts for the ink-jet cartridge

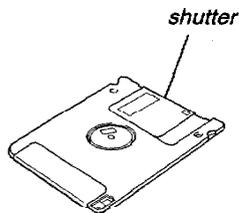


6. Install the ink-jet cartridge.
7. Plug the DC jack into the DC connector on the left side of the Whisperwriter.
8. Press **CODE + SHIFT + INK CHG**.

If print quality has not improved after this cleaning process, replace your ink-jet cartridge. If print quality still does not improve, your printer may require service. Contact your local authorized Brother Service Center.

# Diskettes

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Your Whisperwriter can use both MF-2HD (High Density) and MF-2DD (Double Sided/Double Density) diskettes. The MF-2DD have half the capacity of the MF-2HD. We recommend that you use Brother diskettes.

The slightest damage, such as a scratch, or a small amount of dust on a diskette can easily spoil an entire file and make it unreadable. The protective case of the 3.5 inch diskettes prevents, to some extent, damage to the sensitive diskette surface. (The metallic shutter automatically opens and exposes this sensitive surface only when the diskette is inserted into the drive.) However, additional precautions must be taken in order to ensure reliable maintenance of your files.

## CAUTION



- Never open the shutter of the diskette.
- Never touch the surface of the material inside of the diskette.
- Do not use magnetic materials near the diskette.
- Never expose the diskette to extremely high or low temperatures.

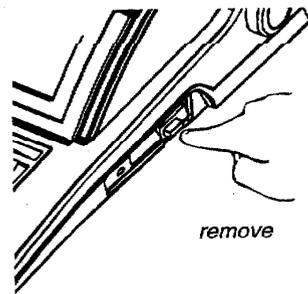
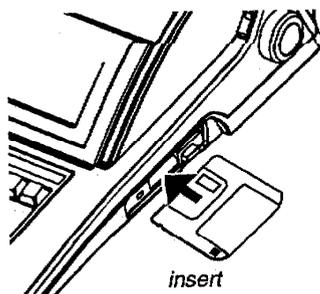
## Inserting and Removing a Diskette



## CAUTION

**Never remove a diskette while a screen message indicates that a diskette operation is in progress.**

To insert a diskette: Proceed as shown in the illustration. You will feel some resistance if you insert it the wrong way.



To remove a diskette: Press the eject button.

## Initializing (Formatting) New Diskettes



### CAUTION

#### Initializing a diskette erases all data on it.

Diskettes must be formatted before they can be used. Some diskettes are already formatted as IBM compatible when you buy them. However, if you buy unformatted diskettes, the Whisperwriter can format them to be IBM compatible. The diskettes you use on a Whisperwriter can also be used on a personal computer. This Whisperwriter can read and write diskettes formatted on a personal computer in the DOS 1.44 megabyte (M) format and the DOS 720 kilobyte (K) format.

When you insert a diskette and try to save a file on it, the Whisperwriter checks the format of the diskette. An error message will tell you what to do if the diskette matches any of the following conditions:

- The diskette is unformatted (new).
- The diskette is formatted in other than MS-DOS or with capacities other than 1.44M or 720K.

To initialize a diskette:

To initialize a diskette without creating a document, see *File Management*, page 185.

Diskettes may not operate properly if you format 2HD diskettes for 720K or 2DD diskettes for 1.44M.

1. Start an application by selecting its icon on the Main Menu.
2. Insert a diskette into the disk drive.
3. Create your document and press **MENU**, and then press **F**. From the submenu, press **S** for Save File. *The following message appears:*

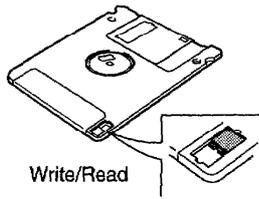
```
Unformatted or damaged disk!
Do you want to initialize disk?
All data on disk will be deleted if initialized.
Use cursor to select and press RETURN.
[YES]                                [NO]
```

4. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **YES** to initialize or **NO** to exit, and press **RETURN**. *If you selected YES, this screen appears:*

```
<< FORMAT TYPE >>
2HD DISK      1.44MB
2DD DISK      720KB
Use cursor to select and press RETURN.
```

5. Select the type of format that matches the diskette and press **RETURN**.

## **Write-Protecting Your Diskettes**



All 3.5 inch diskettes have a switch that protects their contents from accidental erasure. When the switch is in the READ ONLY position, you cannot erase old information or store new information on the diskette. Slide the switch to the READ ONLY position to protect a diskette containing valuable information. (The switch is in the READ ONLY position when it leaves a hole in the diskette cover that you can see through.) You can slide the switch back to the WRITE position when you want to modify files or add new files to it.

## **Backing Up a Diskette**

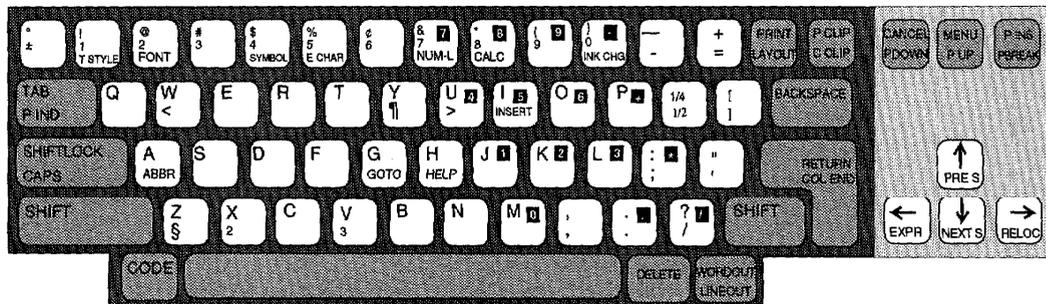
The best insurance against losing important data is to make backups (duplicate copies) of each important file. To learn how to make backups, see "File Management" on page 181.

# Keyboard

Your keyboard contains both the character keys of a standard typewriter and special function keys. Many keys also have second or third functions that can be accessed when the key is pressed in combination with another key. The plus (+) is used with key names to show these key combinations in the instructions. When you see these key combinations, you need to press the **SHIFT** or **CODE** key, hold it down, and then press the second key. For example, **SHIFT + A** means to press and hold the **SHIFT** key and then press the **A** key.

## Character Keys and Cursor Keys

The character keys are the keys found on the standard keyboard and keys for moving around in your text.



*The character keys, and some function keys as well, will automatically repeat if you hold the key down. This is useful when you want to type something like "-----."*

*Pressing **SHIFT** when in the **CAPS LOCK** mode alternates between **SHIFT LOCK** and **CAPS LOCK**.*

**Letter keys:** Pressing the key alone gives the appropriate lower case letter. Pressing the same key while holding **SHIFT** down gives the appropriate capital letter (**SHIFT + A = "A"**).

**Other character keys:** Pressing the key alone gives the character indicated on the lower-left corner of the key (**1 = "1"**). Pressing the same key while holding **SHIFT** down gives the character indicated on the upper-left corner of the key (**SHIFT + 1 = "!"**).

**Special characters:** Characters indicated in green on some keys can be obtained using **CODE** (For example, **CODE + W = "<"**).

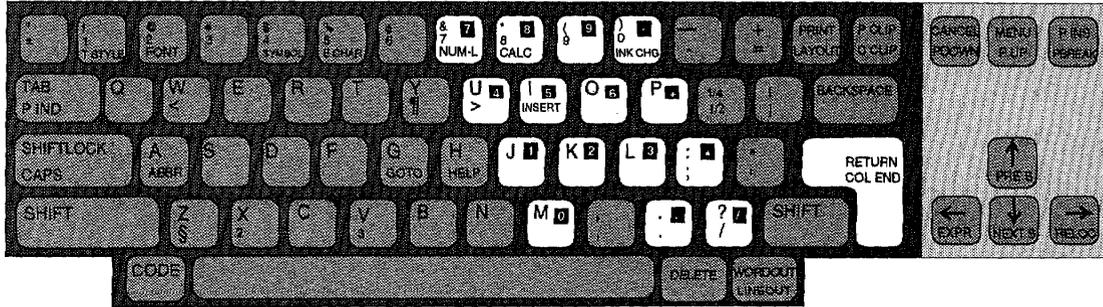
**Shift lock mode:** This mode allows you to type capitals and the special characters above the number keys without holding the shift key down. If you press **SHIFT LOCK**, the SHIFT indicator highlights and remains highlighted. Now all the characters you type will be upper case (**A = "A"**, **1 = "!"**). To release this mode, press **SHIFT**.

**Caps lock mode:** When you need to type only capital letters and numbers, like "ACCT. NO. BC104", press **CODE + CAPS**. The SHIFT indicator at the top of the screen will change to CAPS (highlighted). Caps lock mode locks on so that only capital letters are input. To release this mode, press **CODE + CAPS** again.

**Cursor keys:** Pressing **CURSOR UP**, **CURSOR DOWN**, **CURSOR LEFT** and **CURSOR RIGHT** allows you to move the text cursor one position in the direction of the arrow on their key tops.

## Keypad Keys

In Spreadsheet or Calculator applications, these keys can be used like a calculator keypad when the numeric lock mode is active.



**Number lock mode:** When you need to type numbers only, you can press **CODE + 7 (NUM-L)** to lock the keyboard in the number mode. The NUM indicator on the top of the screen will be highlighted.

When the NUM indicator is highlighted, you can type the characters in the black boxes on the keys. (See illustration above.)

To release the number lock mode, press **CODE + 7 (NUM-L)** again.

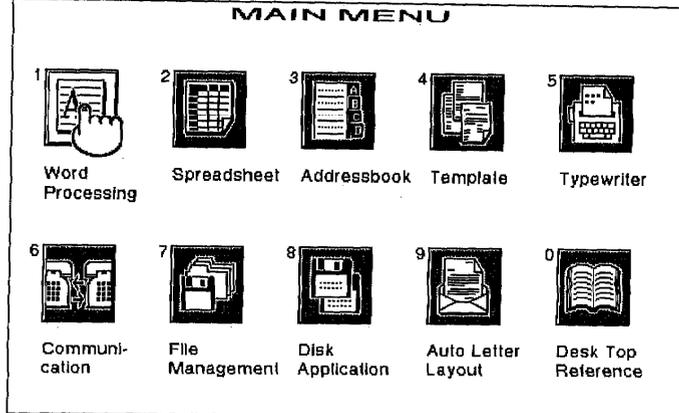


# Operation Overview

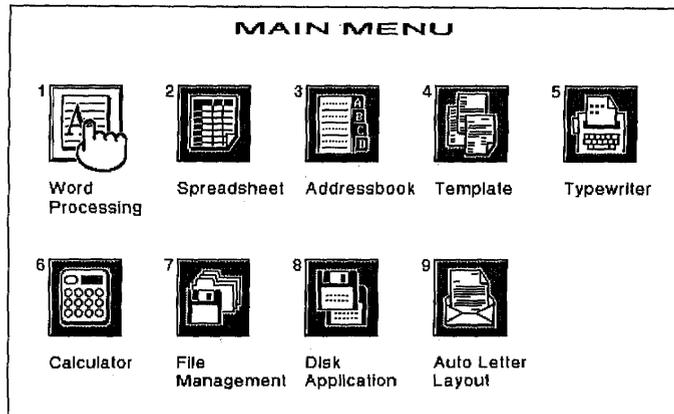
## Main Menu Screen

The MAIN MENU in the next chapters is for WP-7550J & WP-7550J PLUS.

When you switch on the Whisperwriter WP-7550J or WP-7550J PLUS, this Main Menu appears:



When you switch on the Whisperwriter WP-7400J, this Main Menu appears:



## Application description

Here is a short description of the different applications that you can start from the Main Menu:

**Word Processing:** Creates and edits documents, complete with tables, graphics, and image data.

**Spreadsheet:** Creates and edits numeric tables and makes automatic calculation.

**Addressbook:** Creates and edits lists of addresses, phone numbers, etc.

**Template:** Accesses sample files for the Word Processing, Spreadsheet, and Addressbook applications. The WP-7550J & WP-7550J PLUS have 198 business letter templates.

**Typewriter:** Allows your Whisperwriter to function as an electronic typewriter.

**Calculator** (Available in all models by pressing **CODE + CALC**): Calculates elementary arithmetic.

**Communication** (WP-7550J & WP-7550J PLUS only): Transfers files between your Whisperwriter and a personal computer, and also obtains access to commercial data bases and electronic mail services.

**File Management**: Organizes files on a diskette.

**Disk Application**: Starts additional programs that come with your Whisperwriter.

**Auto Letter Layout**: Automatically selects a format for your business or personal letters.

**Desk Top Reference** (WP-7550J & WP-7550J PLUS only): Provides information about words (spelling, hyphenation, synonyms and jumble) and maintains your user dictionary.

## Starting an application

There are two ways to start an application. Use the method you find most comfortable.

Press the number key indicated on the upper left side of its icon (1 for Word Processing, 2 for Spreadsheet, etc.).

OR

1. Press **CURSOR LEFT**, **CURSOR RIGHT**, **CURSOR UP**, and **CURSOR DOWN** to move the finger icon to the desired application icon and highlight it.
2. Press **RETURN** to start the application. *The application menu appears.*

## Function Menus

All of the functions in the applications are found in menus. Press **MENU** to display a function menu at the top of the screen, then select the desired function to activate it.

**Accelerator keys**: Each item of the menu has a single underlined character. You can select items from the menu faster by pressing the corresponding key.

**Shortcut keys**: With many functions, you can use shortcut keys. For example, the shortcut keys for the Justify function are **CODE + J**. The function menu will not appear. In this manual, instructions that include a "shortcut" key method will be indicated as in the following example:

1. Select Edit, then Justify from the function menu. (Short cut: **CODE + J**)

## Dual Display

While creating or editing a file with Word Processing, Addressbook, or Spreadsheet, you can open another Word Processing, Addressbook, or Spreadsheet file, and work simultaneously on both files, even if the files do not belong to the same application.

For example, while working on a Word Processing file, you can open a Spreadsheet file and start working on it. For details, see "Open File for Dual" on page 40.

## **Clip Board**

The Clip Board allows you to temporarily store a portion of a file and paste (copy) it to a different location in the same file or in another file. If the clipped data is inserted into a different application, the data is automatically converted to fit in the target file. For details, see "Clip Board" on page 217.

## **Help Windows**

Press **CODE + H (HELP)**, and a HELP window will display the list of shortcut keys available at that time. After getting your information, press **CANCEL** to close the HELP window.

## **Supplemental Programs**

---

Programs compatible with this system come on diskettes and can be started by selecting the **Disk Application** icon on the Main Menu.

### **Self-Demo**

This program lists the key features of the Whisperwriter.

### **Tutorial**

This program teaches you how to use the **Word Processing** application.

We recommend that you have a look at these programs before you start using the Word Processing application. See the next page for a sample of a document created with the tutorial. For best results, refer to this sample document as you go through the tutorial. To start the tutorial, see "Disk Application" on page 200.

### **Graphic Art Print (WP-7550J-PLUS only)**

This program allows you to print 100 graphic art images. For details, see "Disk Application" on page 195.

### **Frame Print (WP-7550J-PLUS only)**

This program allows you to print various frames. For details, see "Disk Application" on page 198.

# THE SPRINGFIELD SENTINEL

Published by the Springfield Homeowners Association

## Springfield Welcomes Fred & Leslie Tanner

By Amanda Becker

As you may have heard, the Taylor house at 117 Elm has finally been sold!

Our new neighbors, Fred and Leslie Tanner, said they fell in love with the Taylor house the moment they saw it.

Fred is an Executive Vice-President at Alliance Electronics in Middletown. Because he played college basketball, he plans to get involved with our high school team, the Springfield Sabers. Better not let Coach Wilson hear about that!

Leslie, who studied interior design, hopes to start a small consulting practice out of her home and offer her services to local residents and businesses.

Her first project will be to turn the family room of her home into a combination sunroom/office. In fact, she was already over to Drake's Lumber Yard to order new windows and fixtures.

Their two children, Jenny and Craig, will be attending Springfield elementary starting this fall.

Jenny, who studied ballet and tap, plans to try out for the cheerleading squad. Craig, who won "Best Pre-Teen Player" at the All County Tennis Tournament, plans to try out for the Springfield Elementary tennis team.

Needless to say, we're sure the Tanners will be a welcome asset to our community.

For those of you who haven't met them yet, be sure to keep Sunday, May 29th, open for the annual "Say Hello To Summer" barbecue.

## Springfield Taxes Lowest In County For Third Year In A Row

By Don Addison

Every time we step into a supermarket or department store, it seems as if the price of everything is always going up.

Fortunately, the same can't be said of our property taxes which have remained the county's lowest for three years in a row.

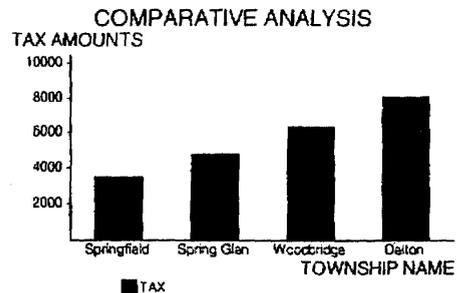
Usually, low property taxes are accompanied by reductions in municipal services like police, fire and garbage disposal. But thanks to the ingenuity of Mayor Joseph Ash and the city council, our level of municipal services has actually increased over the last few years.

"It's a result of all of us working together to maintain the high quality of life that Springfield residents have come to expect. Members of our municipal organizations are all Springfield residents and realize that they are an important part of Springfield's big picture", said Mayor Ash.

Mayor Ash continued by saying that a large part of the thanks also should go to our various committees and councils for their initiative in creating money-raising events.

One particular case that came to mind was the library committee which raised **over \$25,000** in their annual "Cycle-Thon". As most of you probably remember, the "Cycle-Thon" took place last fall and had over 300 participants, each with their own "Dollar-A-Mile" sponsor. Because all administrative and promotional costs were donated, all the monies raised were able to go directly to our library.

"Thanks to events like this, we are able to maintain our high level of services without having to increase taxes on our residents", concluded Mayor Ash.

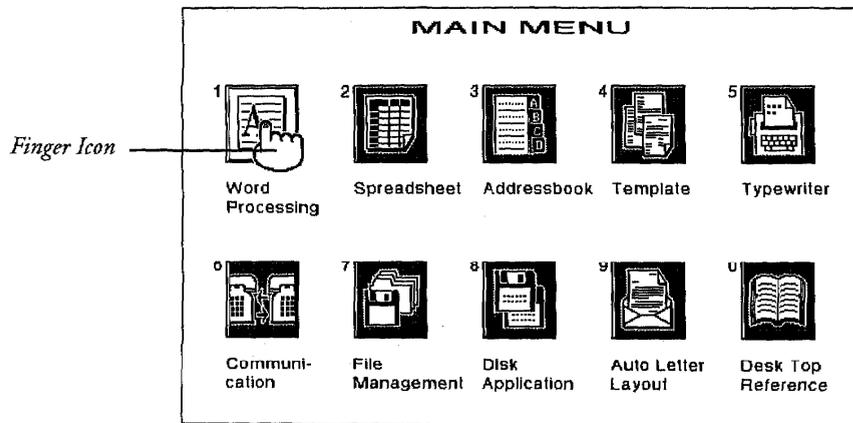


This page contains an illustration of a sample document created with the tutorial program. For best results in creating this sample, refer to this page as you go through the tutorial.



# 2 Word Processing

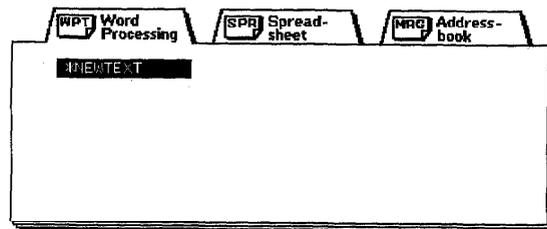
## Starting Word Processing



### Creating a New File

*If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in Getting Started for the procedures on how to initialize a diskette.*

1. From the Main Menu, press 1 (or use the cursor keys to move the finger icon to highlight the Word Processing icon and press **RETURN**).



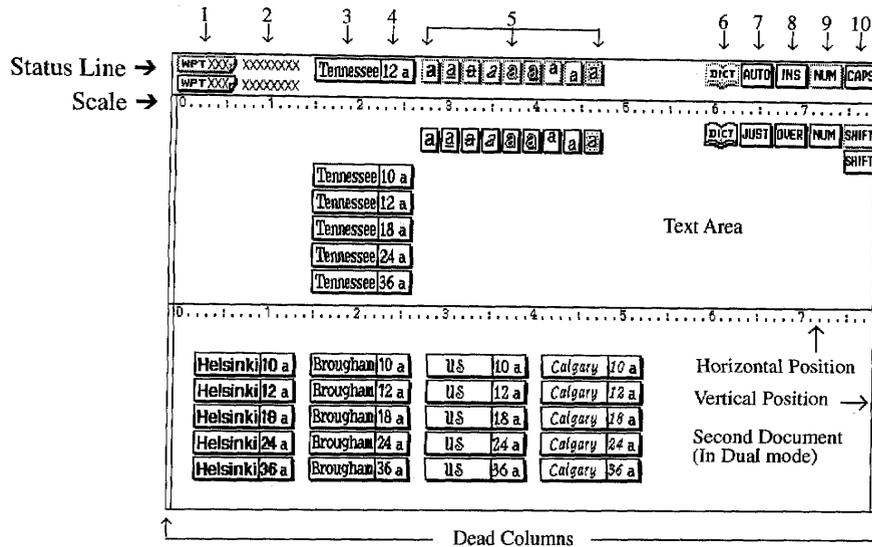
2. Use the cursor keys to highlight \*NEWTEXT and press **RETURN**. The Input/Edit screen shown on the next page appears.

### Editing an Existing File

*Remember that you can press **CODE + H** to get on-screen help.*

1. Insert your data diskette into the drive.
2. Press 1 or use the cursor keys to move the finger icon to highlight the Word Processing icon and press **RETURN**.
3. Use the cursor keys to highlight the file you want to retrieve and press **RETURN**. The Input/Edit screen shown on the next page appears.

# The Input/Edit Screen



**Status Line:** The indicators on the status line show your current settings. Use the above screen to see the placement of the indicators. From left to right on the screen, they are as follows:

1. Page Number – The page number the cursor is positioned on.
2. File Name – The name of the file you are working on.
3. Font Name – The font name.
4. Font Size – The font size (in points) and font mode (double width or height).
5. Type Styles – The highlighted indicators (framed with a solid line) show you which type style is active. From left to right, they are bold, underline, strike-out, italic, outline, shadow, superscript, subscript, and shading.
6. Spell Check – It is highlighted (framed with a solid line) when Spell Check is monitoring your typing.
7. Auto Return or Justification – It tells you when you are in either the auto return (AUTO) or justify (JUST) mode. When both Justification mode and Auto return mode are OFF, (AUTO) is not highlighted.
8. Insert or Overwrite – It tells you when you are in either the Insert (INS) or overwrite (OVER) mode.
9. Numeric Lock – It is highlighted (framed with a solid line) when the keyboard is locked in the numeric mode (The keypad keys will be active. See page 24 in Getting Started for more information).
10. Capital Lock – It is highlighted (framed with a solid line) when the keyboard is in the capital letter (CAPS) mode or in the shift (SHIFT) mode.

*The scale can be disabled in order to provide more space on the screen for your text. For details, see Scale Line ON/OFF on page 81.*

**Scale:** The scale on the screen of the word processor is the electronic equivalent of the scale on the top of a typewriter. This scale helps you to determine the position of characters on a page. The numbers indicate the position from the left edge of the paper. Other symbols remind you of format settings: left margin [ [ ], right margin [ ] ], normal tab [ ↓ ], center tab [ ↓ ] leader tab [ ¶ ], decimal tab [ ¶ ].

**Text Area:** The bulk of the screen is your work area. It is a window into your document. It only shows a portion of your document at a time, but you can move the window up, down, left, and right. The only part you cannot use are the dead columns (left and right edges of the screen). The word processor reserves the left edge for the format change symbol [ E ], chart symbol [ C ], line framing symbol [ L ], and the right edge for the symbol that shows the cursor's immediate position. The solid box at the right edge of the screen indicates the cursor's line position.

Other symbols appear in the text to remind you of the format functions that you used, but will not be printed. These symbols can be switched on/off. For details, see "Function Mark ON/OFF" on page 81.

A word processing file cannot exceed approximately 70,000 characters (70K). To find out how much space you have remaining in the file, press **MENU**. A box displaying the remaining memory available for this file appears. If the file should become full while typing, you will get this Memory Full error message: "Memory full! Press any key to continue." This means that the internal memory is full and you need to save this file on a diskette and open a new file before you can continue writing your document.

Before saving the file on a diskette, use **BACKSPACE** or **DELETE** to erase the last characters typed to make some memory available. You should repeatedly press **BACKSPACE** or **DELETE** until you no longer get the Memory Full error message. Then you can save the file and open a new file to continue writing your document

# Basic Typing

---

*Try creating a short, simple document and save it on a diskette. For details about saving a file, see "Saving a file" on page 42.*

*You may also try to print your document. For details about printing, see "Printing a Document" on page 83.*

## Word Wrap Function

Type your text just as you would on a typewriter. The text appears on the screen instead of being printed on paper.

If you make a mistake, use **BACKSPACE** or **DELETE** to erase the mistake.

The word wrap function allows you to type the sentences in a paragraph continuously without entering a paragraph break symbol [↵]. When a word is going to extend beyond the right margin, the word will be moved to the next line automatically.

## Hyphen Function

**Normal hyphen:** Typing a hyphen "-" in a word entered at the right margin automatically sends the characters after the hyphen to the next line. If the document is edited and the hyphenated word fits on the line, the hyphen will not disappear.

**Permanent hyphen:** For those words that always require a hyphen (mother-in-law, for example), use permanent hyphens which are entered with **CODE + [-]**. A permanent hyphen is displayed as [::]. If a permanent hyphen is used in a word, it is treated as a normal character.

**Soft hyphen:** If a long word has been moved to the next line by the word wrap function, you can insert a soft hyphen at an appropriate position using **CODE + S**. The soft hyphen is displayed as a dotted hyphen [...]. The part of the word before the soft hyphen will be returned to the end of the previous line if it can fit. If the document is reformatted so that the entire word can fit on the same line, the soft hyphen will disappear.

*After the text is typed and the document formatted, you can use the Hyphen Scan function to automatically insert soft hyphens. For details, see "Hyphen Scan" on page 49.*

## Types of Spaces

**Soft spaces:** Soft spaces are entered by pressing **SPACE BAR**. They are word separators that allow words to be separated by the word wrap function. When your sentence reaches the right margin, the word wrap function will move all of the words that come after the last soft space to the next line. In Justify Mode, the soft spaces are adjusted to produce an even right margin. (See "Justify" on page 45.)

**Permanent spaces:** Permanent spaces are entered by pressing **CODE + SPACE BAR**. They are word separators that link words together. Permanent spaces protect words from being separated on different lines. A permanent space is displayed with the symbol [::] and is considered part of the two words it links. Such a space is never adjusted by the automatic justification function. If two words separated with a permanent space are entered on the right margin, they will automatically move together to the beginning of the next line.

## Paragraph Break

At the end of each line of text, Word Processor will automatically move the cursor to the beginning of the next line. This kind of return is called a “soft return.”

To mark the end of a paragraph, press **RETURN**. The cursor will jump to the next line. A return symbol [↵] will appear in your text. This kind of return is called a “hard return.”

## Page Break

The word processor automatically breaks text up into pages according to your specifications. The position of these automatic page breaks is flexible and will be readjusted for you by the word processor if you modify the text. On the screen a page break appears as a horizontal line along with a page number.

You can also force the word processor to start a new page at any point by pressing **CODE + P BREAK**. This inserts a page break symbol [↵] in the text, and creates a new page with the cursor positioned at the beginning of the first line.

## Tab and Paragraph Indent

See “Page Setup” on page 58.

For details about paragraph indent, see “Margins & Tabs” on page 54.

**Tab:** When you press **TAB**, the cursor jumps to the next tab stop and a tab symbol [→] appears. There are different kinds of tab stops. For details about setting tab stops and using them, see “Margins & Tabs” on page 54.

**Paragraph indent:** When you press **CODE + TAB** the cursor jumps to the next normal tab stop and a paragraph indent symbol [→|] appears.

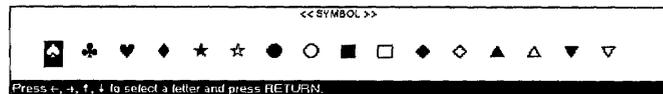
That position becomes a temporary left margin. The cursor will automatically return to that position until you press **RETURN** to mark the end of the paragraph.

## Typing Different Characters

**Special characters on the keyboard:** Most letter keys on your keyboard are also used in combination with **CODE** to activate functions. A few keys, however, are available to type special characters. These keys have the characters printed in green on the key top (example: § on the **Z** key). To type such a character, press **CODE** + the character key.

For a complete list of symbols, see “Symbol table” on page 226.

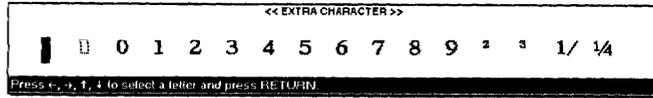
**Symbols:** Pressing **CODE + 4 (SYMBOL)** displays the **SYMBOL** window:



Use the cursor keys to select a symbol, and press **RETURN** to put the symbol character in your text.

Extra characters: Pressing **CODE + 5 (E CHAR)** displays the **EXTRA CHARACTER** window:

For a complete list of extra characters, see "Extra character table" on page 226.



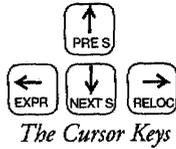
Use the cursor keys to select an extra character, and press **RETURN** to put the character in your text.

Besides the cursor keys, you can use these keys to move the cursor quickly through the **SYMBOL** and **EXTRA CHARACTER** windows:

Key	Cursor movement
<b>CODE + EXPR</b>	to the beginning of the displayed line
<b>CODE + RELOC</b>	to the end of the displayed line
<b>CODE + PRE S</b>	to the beginning of the previous line
<b>CODE + NEXT S</b>	to the beginning of the next line

# Basic Editing

## Moving the Cursor



When you spot a mistake in the line you are typing, move the cursor back to the mistake, correct the mistake, then press **CODE + RELOC** to return to your previous typing position.

Besides these methods for moving the cursor, you can also use the Search function to locate a specific word, phrase, or title in your document. See "Search" on page 46.

To make a revision, you must first know how to move the cursor in the document.

**Moving one position at a time:** The cursor keys **CURSOR LEFT**, **CURSOR RIGHT**, **CURSOR UP** and **CURSOR DOWN** move the text cursor one position in the direction of the arrow on their key tops.

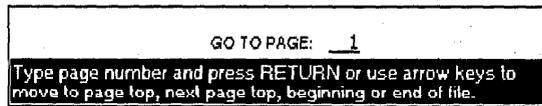
**Jumping left and right:** **CODE + EXPR** moves the cursor to the left margin. **CODE + RELOC** moves the cursor to the end of the current line.

**Moving one paragraph:** **SHIFT + CURSOR LEFT** or **SHIFT + CURSOR RIGHT** moves the cursor to the next return, page break, or column end symbol in the direction of the arrow on the cursor key.

**Searching a format symbol:** **SHIFT + CURSOR UP** or **SHIFT + CURSOR DOWN** moves the cursor to the left margin displaying the format symbol.

**Moving one screen at a time:** **CODE + CURSOR UP (PRE S)** moves the cursor back to the previous screen, and **CODE + CURSOR DOWN (NEXT S)** moves the cursor forward to the next screen at a time.

**Moving to a specified page:** **CODE + G (GO TO)** moves the cursor to the beginning of any page in the document. *After pressing these keys, this window appears:*



Type the desired page number and press **RETURN**. *The cursor moves to that page.*

Instead of typing a page number, you can also press a cursor key. The window will disappear, and the cursor will move as indicated in the following table.

Cursor Key	Cursor Movement
<b>CURSOR UP</b>	To the beginning of the current or previous page
<b>CURSOR DOWN</b>	To the beginning of the next page
<b>CURSOR LEFT</b>	To the beginning of the document
<b>CURSOR RIGHT</b>	To the end of the document

## Inserting Text

You can add text in the middle of a document either in insert or in overwrite mode.

**Insert mode:** At the cursor, the characters you type are inserted and the rest of the line automatically moves to the right.

**Overwrite mode:** As you type, your new information replaces the existing text.

To change between the insert and overwrite modes, press **CODE + I (INSERT)**. The indicator on the document status line will change accordingly to **INS** or **OVER**.

## Deleting Text

**Deleting a character:** Press **BACKSPACE** to delete one character to the left of the cursor. Press **DELETE** to delete the character at the cursor position.

**Deleting a word:** To delete a word, position the cursor on the space immediately following the word and press **WORD OUT**.

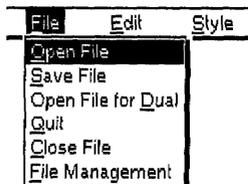
**Deleting a line:** To delete a line, position the cursor anywhere after the last character of the line and press **CODE + LINE OUT**.

**Deleting a block of text:** You can delete any amount of text by using the **Block / Delete** function. For details, see "Delete" on page 61.

*It is not possible to delete a return symbol [↵] if the two paragraphs have different formats.*

## Using the File Functions

---



Use the File functions from the File function menu to open, save, close, delete, or rename your files; initialize disks; and to return to the Main Menu.

**Open File:** Saves the current file to diskette and opens another.

**Save File:** Saves the current file to diskette without closing it.

**Open File for Dual:** Opens a second file. Both the first and second files are displayed on the screen.

**Quit:** In single mode, exits the file without saving and returns to the Main Menu; in dual mode, exits the current file and makes the other file active.

**Close File:** In single mode, saves the file and returns to the Main Menu; in dual mode, saves and closes the current file.

**File Management:** Opens the File Management screen.



## CAUTION

Do not remove a diskette while Word Processing is saving a document to the diskette or when Word Processing is reading a document from a diskette. It could cause a loss of data.

## Tips for Using Files

- You can open two files at the same time, and the files do not need to belong to the same application. We will call those files the **first** and the **second** file. The first file is opened with **Open File**; the second file is opened with **Open File for Dual**.

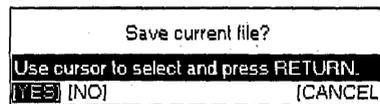
When you are working in Dual Display mode you cannot use the **Open File for Dual** command to open a third file, you must close at least one of the files before you can use **Open File for Dual**.

- File operations are identical in the Word Processing, Spreadsheet, and Addressbook applications. While working with one application, you can use **Open File** or **Open File for Dual** to open a file belonging to the same application, or to a different application.
- To save the current file, use **Save File** or **Close File**.
- You can organize your files in **File Management** mode; however, File Copy, Disk Copy, and Convert functions are not available. For details, see “File Management” on page 179.

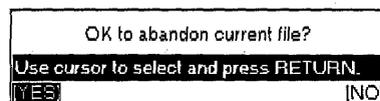
## Open File

Open File is used to open a Word Processing, Spreadsheet or Addressbook file.

1. Press **MENU**. *The cursor will move up into the function menu bar.*
2. Select **File** to open the file menu; then select **Open File** from the file menu. *If not in dual mode and you already have a file open that has been saved, the system will ask if you want to save it.*



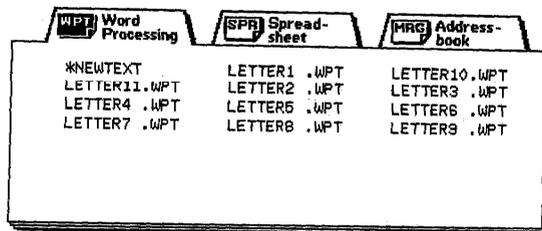
3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select YES, NO or CANCEL. Then press **RETURN**.
  - **YES**: Displays the **SAVE FILE** window. See “Saving a file” on page 42.
  - **NO**: Asks you to confirm that you want to abandon the file:



- **CANCEL**: Cancels the function and returns to the previous display.

After you save and close, or abandon the file, the file index window appears.

You can remove a diskette and insert another one when the file index window is displayed. The display will automatically be updated to display the directory of the new diskette.



The file index window can display three indexes: **Word Processing**, **Spreadsheet**, and **Addressbook**. The file index for the application you are currently using is displayed above the other indexes. The title of the application you are currently working on is highlighted and this message is displayed:

Select mode and press ↓ to select a file.

4. To select the application, use **CURSOR LEFT** and **CURSOR RIGHT** to highlight the desired title; then press **CURSOR DOWN**. The cursor will move inside the file list and highlight the file name at the upper left corner. This file name is either **NEWTEXT**, **NEWDATA** or **NEWBOOK** which allows you to start a new file. This message is now displayed:

Select a file and press RETURN. Press CANCEL to select mode.

5. Use the cursor keys **CURSOR LEFT**, **CURSOR RIGHT**, **CURSOR UP**, **CURSOR DOWN**, **CODE + NEXT S**, or **CODE + PRE S** to highlight the desired file; Then press **RETURN** to open the file.

OR

You can also press **CANCEL** to move the cursor back to the title of the list.

## Save File

Save File is used to save the current file without closing it.

If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go the page 20 in Getting Started for the procedures on how to initialize a diskette.

1. Press **MENU**. The cursor will move up into the function menu bar.
2. Select **File** to open the file menu; then select **Save File** from the file menu. The **SAVE FILE** window will appear, and your file's name will be displayed at the top of the window.
3. Press **RETURN**. The file will be saved to diskette.

## Open File for Dual

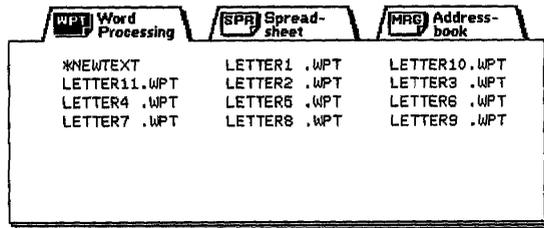
For copy and paste operations, see "Clip Board" on page 217.

Open File for Dual is used to open a **second** file in addition to the file you are currently using. In this way, you can easily compare the two files or transfer parts of one file to the other.

See "Change Screen" on page 81.

When a second file is opened, use the **Screen** functions on the function menu to move between the two files.

1. Press **MENU**. *The cursor will move up into the function menu bar.*
2. Select **File** to open the file menu; then select **Open File for Dual** from the file menu. *The file index window appears*



The file index window can display three indexes: **Word Processing**, **Spreadsheet** and **Addressbook**. *The file index for the application you are currently using is displayed above the other indexes. The title of the application you are currently using is highlighted, and this message is displayed:*

Select mode and press ↓ to select a file.

3. To select the application, use **CURSOR LEFT** and **CURSOR RIGHT** to highlight the desired title; then select press **CURSOR DOWN**. *The cursor will move inside the file list and highlight the file name at the upper left corner. This file name is either **NEWTEXT**, **NEWDATA** or **NEWBOOK**, which allows you to start a new file. This message is now displayed:*

Select a file and press RETURN. Press CANCEL to select mode.

4. Use the cursor keys **CURSOR LEFT**, **CURSOR RIGHT**, **CURSOR UP**, **CURSOR DOWN**, **CODE + NEXT S**, or **CODE + PRE S** to highlight the desired file and press **RETURN** to open the file.

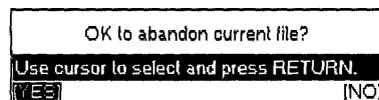
OR

You can also press **CANCEL** to move the cursor back to the title of the list.

## Quit

Quit is used to return to the Main Menu without saving a file.

1. Press **MENU** and select **File**; then select **Quit** from the function menu. *This window will appear:*



2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **YES** or **NO** and press **RETURN**.
  - **YES**: Deletes the file from the memory.
  - **NO**: Cancels the function and returns to the previous display.

## Close File

Close File is used to return to the Main Menu after saving the file.

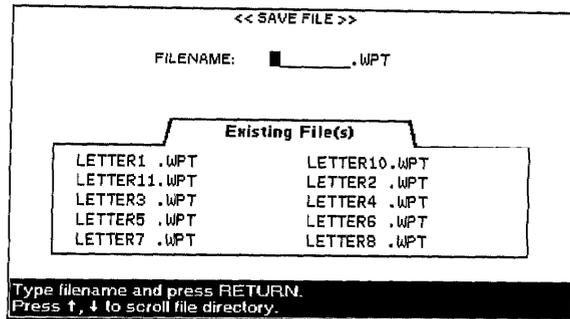
Press **MENU** and select **File**; then select Close File from the function menu. *If changes have not been saved, the SAVE FILE window will appear. See "Saving a file" below.*

## Saving a File

*If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in Getting Started for the procedures on how to initialize a diskette.*

When Close File or Save File is selected from the menu, the **SAVE FILE** window shown below will appear immediately.

The system will also ask you if you want save your current file if you try to open another one using Open File. *If you select YES, the SAVE FILE window will appear.*



<< SAVE FILE >>

FILENAME: █ .WPT

Existing File(s)

LETTER1 .WPT	LETTER10 .WPT
LETTER11 .WPT	LETTER2 .WPT
LETTER3 .WPT	LETTER4 .WPT
LETTER5 .WPT	LETTER6 .WPT
LETTER7 .WPT	LETTER8 .WPT

Type filename and press RETURN.  
Press ↑, ↓ to scroll file directory.

- If you were working on a new file, the file name is empty and you must type a file name. (See the File Name conventions below.)
- If your file has already been saved on the diskette, its file name is displayed.

You can press **RETURN** to save the file with changes.

OR

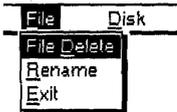
You can also type a new file name to keep both the original and modified versions in separate files.

- The correct file name extension is displayed in the file name entry field (WPT for Word Processing, SPR for Spreadsheet, MRG for Addressbook), and a list of the files from the same application is shown.

## File Name Conventions

- A file name can be made of up to eight characters; a beep sounds if you try to input more. The file name is followed with a period and a three character extension that is automatically created by the system. You cannot modify the extension.
- The word processor accepts only the following characters in file names: upper and lower case letters of the English alphabet (A-Z and a-z), digits (0 to 9), and the hyphen (-). All others are refused and cause the word processor to beep.
- The word processor does not distinguish between upper and lower case letters. All letters are converted into capitals.

## File Management



1. Press **MENU**. *The cursor will move up to the function menu bar.*
2. Select **File** to open the File menu, and then select File Management from the file menu. Use the **File** function to delete or rename files.

**File Delete:** Erases files from the diskette.

**Rename:** Changes the name of a file.

**Exit:** Exits from the File Management mode back to your document.



Use the **Disk** function to delete all files, to initialize diskettes, and to view a diskette's contents.

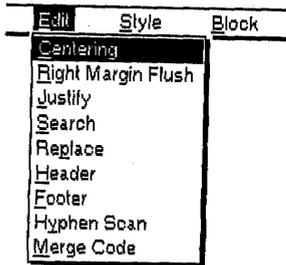
**Delete All:** Deletes all unprotected files on the diskette.

**Initialize Disk:** Prepares the diskette to accept data such as Word Processing files, Spreadsheet files, etc..

**Directory Read:** Reads the directory of a diskette when this has not been done automatically.

For details, see "File Management" on page 179.

# Using the Edit Functions



Use the **Edit** functions from the Edit function menu to make changes in the appearance of your text, to create footer and header texts, or to set up merge codes for automatic generation of letters.

**Centering:** Centers text between margins.

**Right Margin Flush:** Aligns text flush with the right margin.

**Justify:** Evenly adjusts the space between words so that the last character of a line is aligned with the right margin.

**Search:** Searches for the occurrence of a specified string of characters in the document.

**Replace:** Searches for the occurrence of a specified string of characters in the document and allows for automatically replacing with another string.

**Header:** Defines a block of text at the top of a page.

**Footer:** Defines a block of text at the bottom of a page.

**Hyphen Scan:** Scans the text for unhyphenated words that can be divided.

**Merge Code:** Inserts merge codes that will be automatically replaced with data from an Addressbook file during printing.

## Centering

The Centering function is used to center a line of text between margins. You can use it to center the text being typed, or to center text that has already been typed.

1. With the cursor on the line to be centered, press **MENU**. *The cursor will move up to the Function Menu bar.*
2. Select **Edit** from the function menu bar; then select Centering from the Edit menu. (Short cut: **CODE + F**) *A centering symbol **[|+|]** will appear. The cursor will move to the center of the line.*
3. Type the text; then press **RETURN**. *If the line contains text, the text is centered and the cursor waits at the end of the line.*

You can use one of the following methods to release the centering format.

- Delete the centering symbol **[|+|]**.
- Press **CODE + F** a second time.
- Press **CANCEL**.
- Select Centering from the function menu bar a second time.

## Right Margin Flush

The Right Margin Flush function is used to align text flush with the right margin. You can use it to align the text being typed, or to align text that has already been typed and formatted.

1. With the cursor on the line to be aligned, press **MENU**. *The cursor will move to the Function Menu bar.*
2. Select **Edit** from the function menu bar; then select Right Margin Flush from the edit menu. (Short cut: **CODE + R**) *A right margin flush symbol appears. The cursor will move to the right margin.*
3. Type the text; then select press **RETURN**. *If the line contains text, the text is aligned and the cursor waits at the end of the line.*

You can use one of the following methods to release the margin formatting:

- Delete the right margin flush symbol [↵].
- Press **CODE + R** a second time.
- Press **CANCEL**.
- Select Right Margin Flush from the Function Menu bar a second time.

## Justify

*Any line that ends in a [↵] symbol cannot be justified.*

The Justify function is used to adjust the width of the blank spaces between words so that the last character of the line is exactly on the right margin. You can use this function to justify the text being typed, or to justify text that has already been formatted.

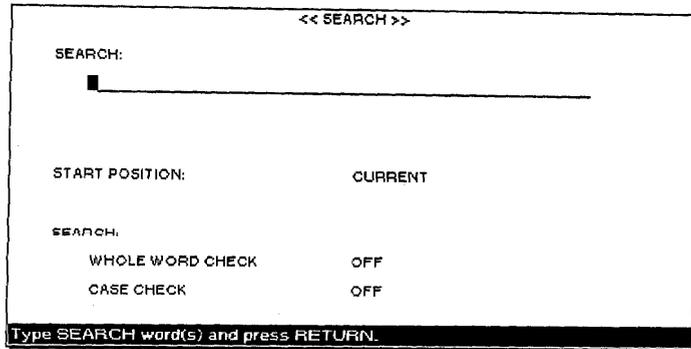
1. With the cursor on the paragraph to be justified, press **MENU**. *The cursor will jump to the function menu bar.*
2. Select **Edit** from the function menu bar; then select Justify from the Function menu. (Short cut: **CODE + J**) *The AUTO indicator on the status line will be changed to JUST.*
3. To cancel the Justify mode and resume normal typing, or to undo a justified text, proceed as in step 1. *The JUST highlighting changes to AUTO.*

When you switch the Justify mode on/off, a format change symbol [E] appears in the dead column at the beginning of the paragraph. The Justify On/Off mode will be valid from that point to the end of the document, or up to the next format change symbol.

## Search

The Search function is used to search for a specified string of characters. It can be used in a very similar way with the Spreadsheet and Addressbook applications.

1. Press **MENU**. The cursor will jump to the function menu bar.
2. Select **Edit** from the function menu bar; then select Search from the edit menu. The **SEARCH** window appears:



<< SEARCH >>

SEARCH:  
█

START POSITION:                      CURRENT

SEARCH:  
WHOLE WORD CHECK                  OFF  
CASE CHECK                          OFF

Type SEARCH word(s) and press RETURN.

3. Type the string to be searched for (50 characters maximum).
4. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to select the other settings.

**START POSITION: CURRENT** – Scans the text from the current cursor position.

**START POSITION: BEGINNING OF FILE** – Scans the text from the beginning of the file.

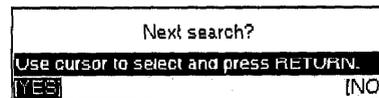
**WHOLE WORD CHECK: OFF** – Stops scanning if the string is found even inside a word. (For example, “the” will be found in “these”).

**WHOLE WORD CHECK: ON** – Stops scanning only when the string is a word by itself.

**CASE CHECK: OFF** – Causes the system not to distinguish between upper and lower case letters. (For example, if the string is “the”, the system will stop at “tHe”, “THE”, etc.).

**CASE CHECK: ON** – Stops only at strings in exactly the same case.

5. Press **RETURN** when you have made your selections. If an occurrence of the string is found, it is highlighted and this window appears:



Next search?  
Use cursor to select and press RETURN.  
[YES] [NO]

6. Select **YES** or press **TAB** to restart searching, or select **NO** to cancel the function. When the string cannot be found, this message appears:

Word(s) not found.

# Replace

The Replace function is used to search for a specified string of characters and replace that string with another string.

1. Press **MENU**. Select **Edit** from the function menu bar; then select **Replace** from the function menu. The **REPLACE** window appears:

<< REPLACE >>	
SEARCH:	_____
REPLACE:	_____
START POSITION:	CURRENT
REPLACEMENT MODE:	MANUAL
SEARCH:	
WHOLE WORD CHECK	OFF
CASE CHECK	OFF

Type SEARCH & REPLACE word(s) and press RETURN.

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting.
4. Type the search and replace strings (50 characters maximum). Use **SPACE BAR** to select the other settings.

**START POSITION: BEGINNING OF FILE** – Scans the text from the beginning of the file.

**WHOLE WORD CHECK: OFF** – Stops scanning if the string is found even inside a word. (For example, “the” will be found in “these”).

**WHOLE WORD CHECK: ON** – Stops scanning only when the string is a word by itself.

**REPLACEMENT MODE: MANUAL** – The system asks you whether or not to replace each time a string is found.

**REPLACEMENT MODE: AUTO** – All occurrences of the string will be automatically replaced.

5. Press **RETURN** when finished. *After you press RETURN, the system starts searching. In AUTO mode, this message will appear after all replacements have been performed:*

Completed.

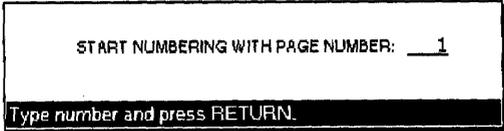
*In MANUAL mode, when an occurrence of the string is found, it is inversely displayed, and this window appears:*

Replace?	
Use cursor to select and press RETURN.	
[YES] [NO]	[CANCEL]

6. Select **YES** to replace that occurrence and restart searching, **NO** or press **TAB** to restart searching without replacing, or **CANCEL** to cancel the function. *When the string cannot be found, this message appears:*

Word(s) not found.





2. Type the number of the first page. Press **RETURN** when finished. *The number will be displayed between double quotation marks.*

OR

You can also automatically number pages in your document in another way. To do this, include a number between double quotation marks. For example, if your header or footer is **Page "1"**, the first printed page will show **Page 1**, the second will show **Page 2**, and so on. When inserting additional pages, use centering or right margin flush and insert them.

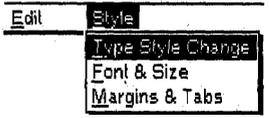
### Style

Use the **Style** functions from the function menu to modify the appearance of your header or footer text.

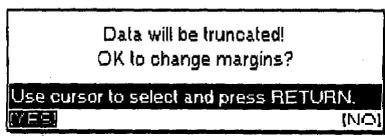
**Type Style:** Switches attributes on/off.

**Font & Size:** Select font type, size and mode.

**Margins & Tabs:** Set, left, and right margins, and tab stops.



*When the text cannot fit on a single line, this window appears:*



- **YES:** Changes the margin and truncates the data which exceeds the right margin.
- **NO:** Do not change the margin.

### Hyphen Scan

*A hyphen inserted with the Hyphen Scan function is treated as a soft hyphen. When reformatting, if a word containing a soft hyphen fits within the margins, the soft hyphen is deleted.*

Since the word wrap function automatically transfers a word that cannot fit in the current line to the next line, excessively long blank spaces may appear and a poor layout will result.

The hyphen scan function automatically detects such long blank spaces and gives you a chance to hyphenate long words. It allows you to type your text without inserting any hyphens manually (except permanent hyphens).

1. Press **MENU** and select **Edit**; then select **Hyphen Scan** from the function menu. *The HYPHEN SCAN window appears:*

<< HYPHEN SCAN >>	
HYPHENATION HOT-ZONE: [2 (0.2INCH) ~ 9 (0.9INCH)]	6
START POSITION:	CURRENT
Type number and press RETURN.	

- Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting.
- Type the number for the hot zone width (2 - 9). Use **SPACE BAR** to select the start position setting.

**HYPHENATION HOT-ZONE : 2-9** Defines the width of the hot zone.

**START POSITION : CURRENT** Scans the text from the current cursor position.

**START POSITION : BEGINNING OF FILE** Scans the text from the beginning of the file.

- Press **RETURN** when finished. *The system starts scanning the document. If a word leaves a blank space that is wider than the specified **HYPHENATION HOT-ZONE**, the **HYPHENATION** window appears:*

OK to hyphenate?	
< HYPHENATION >	
prepara-tory	
Use cursor to select and press RETURN. Press SPACE to change hyphen position.	
[YES] [NO]	[CANCEL]

- The window shows a possible hyphen position for the long word. Select the following items by using **CURSOR LEFT** and **CURSOR RIGHT** and press **RETURN**. (You can also press **TAB** instead of selecting **NO**)*
  - YES:** Hyphenates the word as shown and resumes scanning.
  - NO or TAB:** Resumes scanning without hyphenating that word.
  - CANCEL:** Cancels the function and returns to the previous display.
- To change the hyphen position, press **SPACE BAR** while displaying the **HYPHENATION** window. *The hyphen position will change within the possible hyphen position.*

## Merge Code

The Merge Code function is useful when a similar letter is to be sent to numerous addresses with each letter having a different name and address, but the same contents. This will print the same letter continuously while automatically inserting changing information such as names and addresses into the document at the same position.

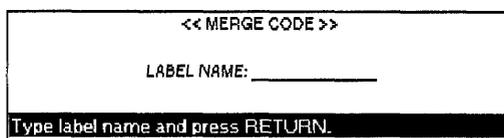
## Using the merge code function

1. Create a file containing the data to be inserted in the letters (the Addressbook file). For details, see "Addressbook" on page 131. The data to be inserted into a single letter is called a record. A record is made of different labels that correspond to the different pieces of information you need to insert in a single letter (Name, Address, etc.). You must organize your Addressbook file logically. The same label of each record must contain the same type of information. The Addressbook application allows you to mark records for merge printing.
2. Create a Word Processing file containing the text that will be common to all of the letters (the "master document"). Wherever variable information has to be inserted in that text, you insert a "merge symbol" using the Merge function described in this section.
3. Print the Master Document. The text is printed as usual until a merge symbol is encountered. At that point, the program compares the label name that you have inserted with the merge symbol, and automatically replaces the merge symbol with the data contained in the corresponding label of the first marked record.

When the whole document is printed, the system checks the Addressbook file to see if there are more marked records. If there are no more records, merge printing is completed. Otherwise printing of the Master Document starts again using the next marked record of the Addressbook file. The process is repeated until all records of the Addressbook file have been used.

## Inserting merge symbols in your document

1. Position the cursor in the text at the desired location for the merged information.
2. Press **MENU** and select **Edit**; then select Merge Code from the function menu. (Short cut: **CODE + M**) *The MERGE CODE window appears:*



<< MERGE CODE >>

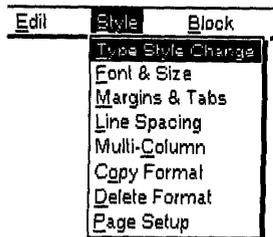
LABEL NAME: \_\_\_\_\_

Type label name and press RETURN.

3. Type the name of the label (12 characters maximum) corresponding to the Addressbook information you want inserted at this point. Then press **RETURN**. *The label name is entered as it appears in the Addressbook.*
4. Type LAST NAME, FIRST NAME, or one of the other label names at the merge code screen. The label name surrounded with merge symbols [M] will appear in the text.
5. If necessary, set the font type and size, as well as the attributes for the label name. *During merge printing, the merged information will use those settings.*
6. After inserting all merge symbols, you can start merge printing. See "Printing a Document" on page 83.

*You must type the label name exactly the same way as it appears in your Addressbook file. You can use the dual screen function to display the Addressbook file if you do not remember the label names.*

# Using the Style Functions



**Margins & Tabs, Line Spacing and Multi-Column** are applied from the paragraph the cursor is on, up to the end of the document, or up to the next format change symbol.

**Page Setup** applies to the entire document.

## Type Style Change

The characteristics that you can set with the **Type Style Change** function are called "attributes."

**Underline** is an exception to the rule in step 2. Pressing **SPACE BAR** once turns **Continuous Underline** on. Pressing it again turns **Word Underline** on, and pressing it once more turns underline off. With **Continuous Underline**, everything is underlined. With **Word Underline**, spaces between words are not underlined.

Use the following **Style** functions from the Function menu to modify the appearance of your document:

**Type Style Change:** Switches attributes on/off.

**Font & Size:** Selects font type, size and mode.

**Margins & Tabs:** Sets left and right margins, and tab stops.

**Line Spacing:** Sets the line spacing.

**Multi-Column:** Switches the multi-column layout on/off, sets the column width, number of columns, and sets the column spacing.

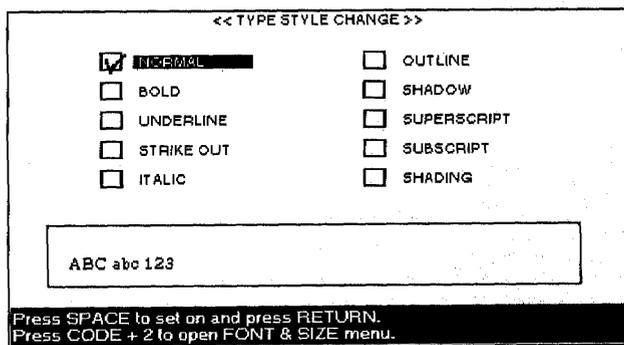
**Copy Format:** Copies a format change symbol, For pasting into the text to change the format from that point.

**Delete Format:** Deletes a format change symbol.

**Page Setup:** Selects paper size, selects orientation, sets top and bottom margins as well as the space reserved for the header and footer.

The **Type Style Change** function is used to add style effects to the text you are going to type. If you wish to change the type style of previously typed text, you must use the **Block** function on the function menu. (See "Block" on page 60.)

1. Press **MENU** and select **Style**; then select **Type Style Change** from the function menu. (Short cut: **CODE + 1 (T STYLE)**) The **TYPE STYLE CHANGE** window appears.



2. Use the cursor keys to move the cursor to the desired attribute setting, and press the **SPACE BAR** to turn the attribute on/off. While Changing settings, you can immediately see the effects of your settings in the box at the bottom of the window.
3. Press **RETURN** when finished.

You can apply more than one attribute at the same time. There are, however, a few exceptions:

- **NORMAL** will automatically reset all other attributes to off.
- The following attributes cannot be set together; the last setting overwrites the previous one:

**OUTLINE, BOLD, and SHADOW**

**UNDERLINE and SHADOW**

**SUPERSCRIPIT and SUBSCRIPT**

You can use the following shortcut keys to change some attributes without displaying the **TYPE STYLE CHANGE** window:

**CODE + B:** Bold On/Off

**CODE + N:** Underline Continuous/Word/Off

If you wish to change the font, size, and proportion of the character, press **CODE + 2 (FONT)** to open Font & Size menu directly from the current Type Style Change menu.

## Font & Size

The Font & Size function is used to select the font, size, and proportions of the characters you are going to type.

*If you wish to change the font and size of previously typed text, you must use the **Block** function on the function menu. (See "Block" on page 60.)*

*You cannot select **DOUBLE WIDTH** or **DOUBLE HEIGHT** when the font size is 24 or 36 because the resulting fonts would exceed the capability of your system. If you try to do so, the size is reset to 18 and the mode to **NORMAL**.*

*If you want to change Type Style also, press **CODE + 1 (T STYLE)** to open the Type Style Change menu directly from the current Font & Size menu.*

1. Press **MENU** and select Style; then select Font & Size from the function menu. (Short cut: **CODE + 2 (FONT)**) *The FONT & SIZE window appears:*

<< FONT & SIZE >>		
TYPE:	SIZE:	MODE:
<b>TENNESSEE</b>	10 POINT	<b>NORMAL</b>
HELSINKI	<b>12 POINT</b>	DOUBLE WIDTH
BROUGHAM	18 POINT	DOUBLE HEIGHT
US	24 POINT	
CALGARY	36 POINT	

ABC abc 123

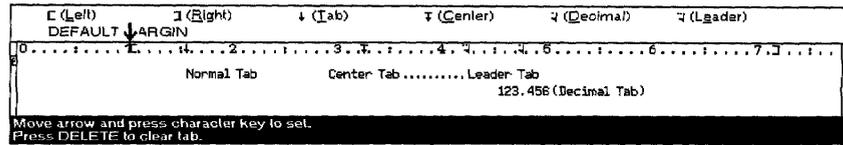
Press ↑, ↓ to change setting and press RETURN.  
Press ←, → to move to another setting.  
Press CODE + 1 to open TYPE STYLE CHANGE menu.

2. Use **CURSOR LEFT** and **CURSOR RIGHT** to move from one column to the other. Use **CURSOR UP** and **CURSOR DOWN** to highlight the desired option in each column. *While setting font and font size, you can immediately see an example of the effect of your settings in the box at the bottom of the window.*
3. Press **RETURN** when finished.

## Margins & Tabs

The Margin & Tabs function is used to set the position of the left and right margins as well as the position of tab stops.

1. Position the cursor on the line where the new format is to begin.
2. Press **MENU** and select **Style**; then select **Margins & Tabs** from the function menu. *The Margins & Tabs screen appears:*



3. Move the cursor to the desired position using these keys:

Key	Function
<b>CURSOR LEFT</b>	Moves the cursor 1/10 inch to the left.
<b>CURSOR RIGHT</b>	Moves the cursor 1/10 inch to the right.
<b>CODE + EXPR</b>	Moves the cursor to the current left margin, or to the left end if the cursor was on the left margin.
<b>CODE + RELOC</b>	Moves the cursor to the current right margin, or to the right end if the cursor was on the right margin.
<b>SHIFT + CURSOR LEFT</b>	Moves the cursor 1/100 inch to the left.
<b>SHIFT + CURSOR RIGHT</b>	Moves the cursor 1/100 inch to the right.
<b>TAB</b>	Moves the cursor to the next tab, or to the right margin if there is no other tabs.

4. To set margins and tabs, use the following keys:

Key	Margin/Tab Settings and Symbols
<b>L</b>	Set the left margin at the cursor ( [ ).
<b>R</b>	Set the right margin at the cursor ( ] ).
<b>T</b>	Set a normal tab at the cursor ( ↓ ).
<b>C</b>	Set a center tab at the cursor ( ⤵ ).
<b>E</b>	Set a leader tab at the cursor ( ⤵ ).
<b>D</b>	Set a decimal tab at the cursor ( ⤵ ).
<b>M</b>	Resets the left and right margins to the default setting.
<b>DELETE</b>	Clear the tab at the cursor position.
<b>CODE + D</b>	Clear all tabs.

If any of the keys in the adjacent table are pressed to set tabs or margins at a position where a tab or margin has already been set, a **E** code will appear and the text will be reformatted.

If you want to change the margins of the header, footer, or the beginning of the text, select **Page Setup** in **Style** function and press **RETURN** without changing the paper size.

To reset the other formats, press **M** to the default setting in the **Margins & Tabs** screen.

A format change symbol [**E**] appears at the beginning of the paragraph where the new format begins. The text is reformatted from that point to the end of the file or to the next format symbol.

5. Press **RETURN** when finished.

## Using tabs to create a table

You can create a table *directly while typing*. Pressing **TAB** moves the cursor to the next tab to the right and displays a tab symbol [→]. Now type your text. The way the text will be aligned with the tab depends on the type of tab you have selected.

**Normal tabs:** The text you type will be left-aligned with the tab.

**Decimal tabs:** The number you type will be right-aligned with the tab and the number moves to the left as you type. When you type the decimal point, it appears at the tab position, and any further digits that you type will be displayed to the right. The decimal tabs are normally used to align numbers in a column so that their decimal points are vertically aligned. You can also use a decimal tab to right-align any text with the tab.

**Center tabs:** The text you type is automatically centered around the tab.

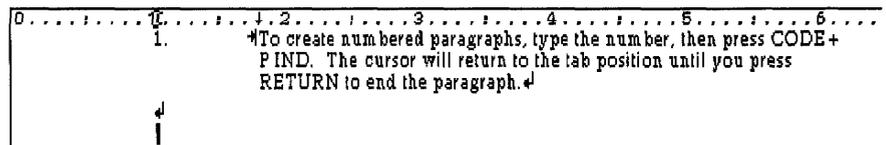
**Leader tabs:** When you press **TAB**, then the next tab will be a leader tab which will provide a string of periods from the point you pressed **TAB** up to the tab. If you type some text from that point, it will be left aligned with the tab.

You can also insert tab symbols in the text already typed in order to rearrange the text into a table. Press **CODE + I (INSERT)** if you are not in the insert mode. Move the cursor just before the text you want to align and press **TAB**. The text will be aligned according to the tab.

To undo a table format, you can delete the tab symbols [→].

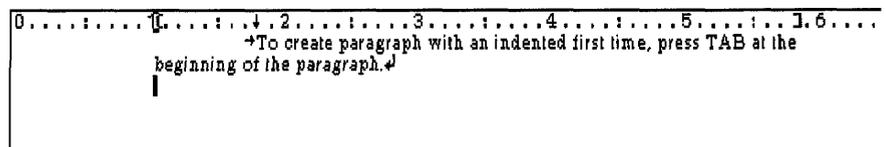
## Using a tab to create a paragraph indent

Instead of using **TAB** to create a new tab, you can use **CODE + P IND** to create a paragraph indent. The cursor will move to the next tab, and a paragraph indent symbol [→] will appear. The tab will become a *temporary left margin* (the text you type will wrap to the tab position). When you press **RETURN** to mark the end of the paragraph, the cursor returns to the true left margin. See the example below:



## Using a tab to create a line indent

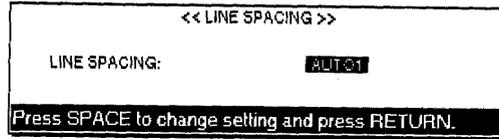
To indent the first line of a paragraph, press **TAB** at the beginning of the paragraph to move the first line to the first tab position.



## Line Spacing

The Line Spacing function is used to set the vertical spacing between the lines of type.

1. Position the cursor on the line where the new format is to begin.
2. Press **MENU** and select **Style**; then select Line Spacing from the function menu. *The LINE SPACING window appears:*



3. Use the **SPACE BAR** to change the line spacing as described below.

**LINE SPACING / AUTO1:** Sets the line spacing to a standard value according to the size of the tallest character on the line.

**LINE SPACING / AUTO2:** Sets the line spacing to a standard value according to the tallest character in a line, plus 1/12 inch.

**LINE SPACING / AUTO3:** Sets the line spacing to a standard value according to the highest character in a line, plus 1/6 inch.

	AUTO1	AUTO2	AUTO3
12 points	Aa Aa Aa	Aa Aa Aa	Aa Aa Aa
36 points	Aa Aa Aa	Aa Aa Aa	Aa Aa Aa

4. Press **RETURN**. *A format change symbol [E] will appear at the beginning of the paragraph. The text is reformatted from that point to the end of the file or up to the next format change symbol.*

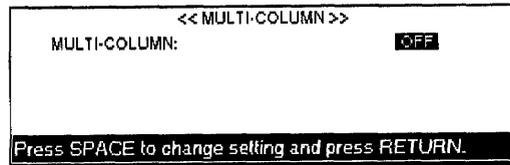
## Multi-Column

*The margins set for your document must be wide enough to accommodate all of the columns and the assigned space between the columns. If the margins are not wide enough, the prompt "Incorrect setting!" will appear.*

The Multi-Column function is used to print your document in newspaper fashion with up to four columns of equal width across the page.

1. After your text is typed, position the cursor at the beginning of the text to be set to multi-column.
2. Press **MENU** and select **Style**; then select Multi-Column from the function menu. *The MULTI-COLUMN window appears:*

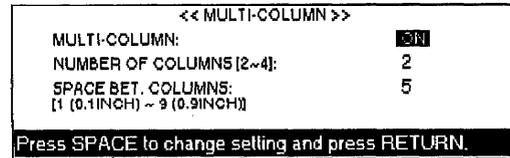
If you set tabs before turning on the multi-column mode, only those tabs that are within the width of the first column are valid and are repeatedly applied to the next columns.



3. Use the **SPACE BAR** to change the setting. Press **RETURN** when finished.

**MULTI-COLUMN: OFF** For a single column.

**MULTI-COLUMN: ON** For up to four columns. If **ON** is selected, the **MULTI-COLUMN** window changes as follows:



4. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Type in the required numbers. Press **RETURN** when finished.

**NUMBER OF COLUMNS:** The number of desired columns.

**SPACE BET. COLUMNS:** The space between columns.

5. Press **RETURN**, a format change symbol [E] appears at the beginning of the paragraph. The text is reformatted from that point to the end of the file, or up to the next format change symbol.

## Typing text in multi-column pages

We recommend that you first type your text using standard margins and format into multi-columns for editing and printing. Typing in the multi-column mode requires your unit to perform extensive reformatting with each line you type.

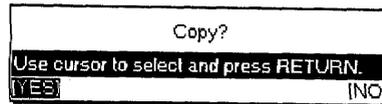
1. Set up the multi-column function as described above.
2. Type your text for the first column. When the cursor reaches the end of the first column (bottom of the page), it will automatically jump to the top of the second column. When the cursor reaches the end of the last column, it will jump to the top of the first column on the next page.
  - To jump to the next page before reaching the end of the current page, insert a page break symbol [↓] by pressing **CODE + P BREAK**.
  - To jump to the next column before reaching the end of the current one, insert a column end symbol "⌵" by pressing **CODE + COL END**. If columns of the current page are terminated with a column end, the cursor will move to the area beneath the columns so that you may continue typing on the current page.
  - If you delete a block that contains the format change symbol "E" for the multi-column mode, this mode is canceled, but the column end symbols will remain in the text.
  - If you want to move the cursor to the next column, press **CODE + EXPR** or **CODE + RELOC**. The cursor will move to the left column by pressing **CODE + EXPR** when the cursor is on the left margin. The cursor will move to the right column by pressing **CODE + RELOC** when the cursor is on the end of the current line.

## Copy Format

If you select this function for a line with the format change symbol  $\bar{E}$  or  $\underline{E}$ , the chart or line will be cleared.

The Copy Format function is used to copy formats tagged with the format change symbol  $\bar{E}$  to a new location in your document..

1. Move the cursor to the line with a format change symbol to be copied.
2. Press **MENU** and choose **Style**; then select Copy Format from the function menu. *The arrow cursor will appear on the right side of the format change symbol on the screen and this message appears:*



3. Select **YES** to copy or **NO** to cancel the function. If **YES** is selected, this message will appear.

Move cursor to destination of copying and press RETURN.

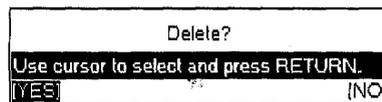
4. Move the cursor to the destination and press **RETURN**.

## Delete Format

If you select this function when the format change symbol is at the very beginning of the file, the position of the left and right margin will be set automatically and all tabs will be cleared.

The Delete Format function is used to remove formats that are tagged with the format change symbol  $\bar{E}$ .

1. Move the cursor to the line with a format change symbol to be deleted.
2. Press **MENU** and select **Style**; then select Delete Format from the function menu. *The arrow cursor will appear on the right side of the format change symbol on the screen and this message appears:*

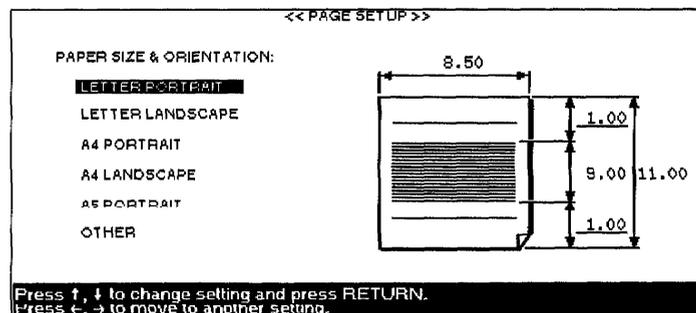


3. Select **YES** to delete or **NO** to cancel the function.

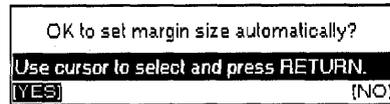
## Page Setup

The Page Setup function is used to select the page size, and to set top and bottom margins.

1. Press **MENU** and select **Style**; then select Page Setup from the function menu. *The PAGE SETUP window appears:*



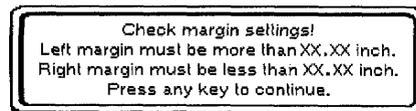
2. Use **CURSOR UP** and **CURSOR DOWN** to select the paper size and orientation. *This determines the width and length of the paper.*
3. Use **CURSOR RIGHT** to move the cursor to the entry field, and **CURSOR UP** and **CURSOR DOWN** to move to each setting; then type the desired values in inches. *The text area is set automatically.*
4. When finished, press **RETURN** to return to the Input/Edit screen and confirm your settings.
  - If the paper size is set to **LETTER PORTRAIT**, **LETTER LANDSCAPE**, **A4 PORTRAIT**, **A4 LANDSCAPE** or **A5 PORTRAIT** and the margin of Top of Text or Header/Footer is not a default, this message will appear:



**YES:** Automatically changes the margin settings and returns to the Input/Edit screen.

**NO:** Returns to the Input/Edit screen without changing margin settings.

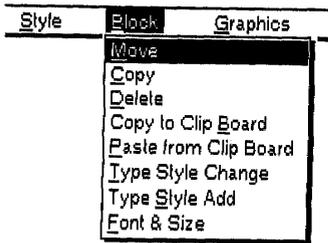
- If the paper size is set to **LETTER LANDSCAPE**, **A4 LANDSCAPE** and **OTHER** or **NO** is selected, and the Width is set to more than 9.10 inches, this message appears:



Make sure to check the margin settings or else the printed text will print the paper if the margins are not set within the range indicated in the message.

- If the text entered in the header or footer exceeds the range of the margin due to the automatic margin change, the extra text will be deleted from the right end. *Then, when the Header or Footer edit screen is displayed, the prompt "Data has been truncated." will appear.*

# Using the Block Functions



Use the following **Block** functions to modify the location or appearance of an entire block of text:

**Move:** Moves a block of text to another location.

**Copy:** Copies a block of text to another location. (The original location is left unchanged.)

**Delete:** Erases a block of text.

**Copy to Clip Board:** Copies a block of text to the Clip Board.

**Paste from Clip Board:** Pastes the contents of the Clip Board into a document.

**Type Style Change:** Changes the attributes of a block of text.

**Type Style Add:** Adds the attributes of a block of text.

**Font & Size:** Changes the font, size, and proportions of a block of text.

## Move

*If graphics are marked, format change or line framing are included in the marked block such that information moves together with the text.*

The move function is used to remove a block of text from its original position and insert it at another place in the document.

1. Move the cursor to the beginning (or the end) of the block to be moved. Press **MENU** and select **Block**; then select Move from the function menu. (Short cut: **CODE + E**). *This message will appear:*

Move cursor to end of block to be moved and press RETURN.  
To jump to paragraph end, press SHIFT + ←, SHIFT + →.

2. Move the cursor to the end (or the beginning) of the block. If you want to select paragraphs of text, use **SHIFT + CURSOR LEFT** or **SHIFT + CURSOR RIGHT**. *The cursor will move to the next return, page break, or column end symbol in the direction of the cursor key. As the cursor moves, the selected text is highlighted.*
3. Press **RETURN** when the desired block is marked. *This message will appear:*

Move cursor to destination for blocked text and press RETURN.

4. Move the cursor to the destination for the block and press **RETURN**. *The block is removed from its original position and inserted at the destination position.*

## Copy

*If graphics are marked, format change or line framing are included in the marked block such that information is copied together with the text.*

The Copy function is used to copy a block of text to a specified destination without removing the original text.

1. Move the cursor to the beginning (or the end) of the block to be copied.  
Press **MENU** and select **Block**; then select Copy from the function menu.  
(Short cut: **CODE + C**) *This message will appear:*

Move cursor to end of block to be copied and press RETURN.  
To jump to paragraph end, press SHIFT + ←, SHIFT + →.

2. Move the cursor to the end (or the beginning) of the block. If you want to select paragraphs of text, use **SHIFT + CURSOR LEFT** or **SHIFT + CURSOR RIGHT**. *The cursor will move to the next return, page break, or column end symbol in the direction of the cursor key. As the cursor moves, the selected text is inversely displayed.*
3. Press **RETURN** when the block is marked. *This message will appear:*

Move cursor to destination for blocked text and press RETURN.

4. Move the cursor to the destination for the block and press **RETURN**. *The block is inserted at that place.*

## Delete

The Delete function is used to remove a block of text.

1. Move the cursor to the beginning (or the end) of the block to be deleted.
2. Press **MENU** and select **Block**; then select Delete from the function menu.  
(Short cut: **CODE + D**) *This message will appear:*

Move cursor to end of block to be deleted and press RETURN.  
To jump to paragraph end, press SHIFT + ←, SHIFT + →.

3. Move the cursor to the end (or the beginning) of the block. (If you want to select paragraphs of text, use **SHIFT + CURSOR LEFT** or **SHIFT + CURSOR RIGHT**.) *The cursor will move to the next return, page break, or column end symbol in the direction of the cursor key. As the cursor moves, the selected text is inversely displayed.*
4. Press **RETURN** when the block is marked. *The system will ask you to confirm:*

Delete?	
Use cursor to select and press RETURN.	
YES	NO

5. Select **YES** to delete the block, or **NO** to cancel the function.

*If graphics, format change, or line framing are included in the marked block, that information is deleted together with the text.*

## **Copy to/ Paste from Clip Board**

These functions are described in “Clip Board” on page 217.

## **Type Style Change / Type Style Add / Font & Size**

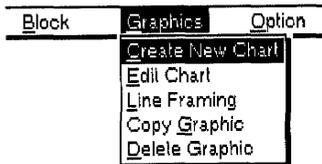
Type Style Change and Font & Size work in the same way as in the **Style** submenu. Type Style Add works in the same way as Type Style Change. However, using this function is the easiest way to add attributes to a block of text, because the current attributes of the specified block of text are already chosen when you open **TYPE STYLE** window from the Type Style Add function.

1. Press **MENU** and select **Block**; then select Type Style Change, Type Style Add, or **Font & Size** from the function menu.
2. Mark the block to have the Type Style Change, Type Style Add, or Font & Size.
3. Select the text and press **RETURN**.

The differences between these functions and those in the **Style** submenu are:

- You cannot use **CODE + FONT** or **CODE + T STYLE** to start these functions. Pressing **CODE + FONT** when the Type Style Change or Type Style Add window is displayed will switch you to the Font & Size window, and pressing **CODE + T STYLE** does the reverse.
- The format change is applied to the selected block.
- You can select the **AS IS** setting for each item only in Font & Size to keep the setting as it is.

# Using the Graphics Functions



Use the following Graphics functions from the function menu to create and edit charts and frames:

**Create New Chart:** Creates a chart.

**Edit Chart:** Edits an existing chart.

**Line Framing:** Creates and edits a graphic frame.

**Copy Graphic:** Copies a chart or frame.

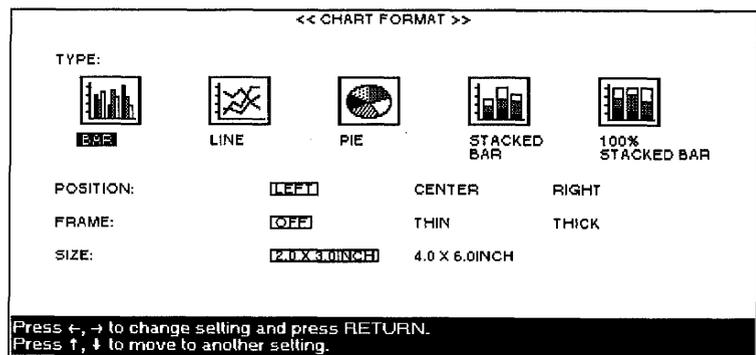
**Delete Graphic:** Deletes a chart or frame.

## Create New Chart

You cannot insert a chart inside a multi-column format, or at a place where a "c" code or "l" code already exists.

The Create New Chart function is used to create a new chart and insert it in the document. Five types of charts are available: bar, line, pie, stacked bar, and 100% stacked bar charts.

1. Move the cursor to a line below where you wish to insert a chart.
2. Press **MENU** and select **Graphics**; then select **Create New Chart** from the function menu. *The CHART FORMAT window appears:*



3. Use **CURSOR UP** and **CURSOR DOWN** to move from one item to the next. Use **CURSOR LEFT** and **CURSOR RIGHT** to select the desired option in each column.
  - **TYPE: BAR / LINE / PIE / STACKED BAR / 100% STACKED BAR:** To create a simple bar chart, line chart, pie chart, stacked bar chart, or 100% stacked bar chart. An icon shows an example of each type of chart.
  - **POSITION: LEFT / CENTER / RIGHT:** To align the chart with the left margin, to center between margins, or to align with the right margin.
  - **FRAME: OFF / THIN / THICK:** To select no frame, thin frame, or thick frame for your chart.
  - **SIZE: 2.0 x 3.0 inch / 4.0 x 6.0 inch:** To select one of two sizes for your charts.

- **LINK LINE: OFF / ON:** To show increases and decreases of each item in a stacked bar or 100% stacked bar chart by adding lines from the boundaries of items in one stack to equivalent ones in the next stack. (Link Line can be selected only when stacked bar chart or 100% bar chart is selected.)

4. Press **RETURN** when you are finished. *CHART TITLE windows appears.*

*If you selected Bar, Line, Stacked Bar, or 100% Stacked Bar this window appears:*

<< CHART TITLE >>

TITLE: \_\_\_\_\_

X-AXIS TITLE: \_\_\_\_\_

Y-AXIS TITLE: \_\_\_\_\_

Type title and press RETURN.

- **TITLE:** The title of the chart (example: **Employees**). The maximum length is 30 characters.
- **X-AXIS TITLE:** The title you want on the x-axis (example: **Age**). The maximum length is 20 characters.
- **Y-AXIS TITLE:** The title you want on the y-axis. The maximum length is 20 characters.

5. Type the title for your bar or line chart and titles for the X/Y axis and press **RETURN**.

*If you selected 'Pie:*

<< CHART TITLE >>

TITLE: \_\_\_\_\_

Type title and press RETURN.

- **TITLE:** The title of the pie chart (example: **Employees**). The maximum length is 30 characters.

6. When you enter the title and press **RETURN**, one of the **CHART DATA** windows will appear. Use the cursor keys and **RETURN** to move the cursor and type the data. Press **CODE + RETURN** when finished.

## Deleting Data

Press **CODE + D** while entering data to delete only the input data. *The following window appears.*

OK to delete all input data?

Use cursor to select and press RETURN.

[YES] [NO]

If you select YES, everything within the chart (the legend, x-axis item and all numeric data) will be cleared, but the CHART DATA window will remain on the screen. (Select NO to return to the window without deleting.)

If you selected Bar, Line, Stacked Bar, or 100% Stacked Bar:

<< CHART DATA >>		
LEGEND	X-AXIS	

Type data and press CODE + RETURN.

- **LEGEND:** A label for each row of data (example: **female, male**). You can have a maximum of five labels.
- **X-AXIS:** The data that you want to appear on the x-axis will be under each bar (example: **under 30, 30-50, 50+**). You can input a maximum of 12 items.
- **Inside the grid:** The numeric data is displayed as bars of relative heights. You can input a maximum of 12 sets (columns) of 5 different values. Each value can contain up to 15 digits, a decimal point and a minus sign, if necessary.

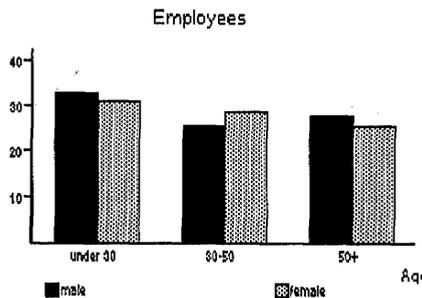
## Chart Examples

A bar chart contains three "clusters" of two bars, one cluster for each age bracket.

With a stacked bar and 100% stacked bar chart, the two bars of each cluster will be stacked one above the other.

The sample charts below show the relative proportion of employees of a company in three age brackets (under 30, 30-50, and 50+) and to separately display the numbers of female and male employees. Use the first row of the grid to show the number of female employees (example: 32, 25, 30) and the second row to show the number of male employees (example: 30, 28, 28).

Bar

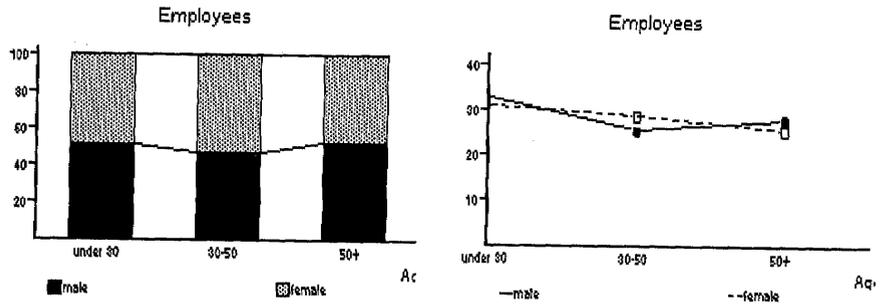


Stacked Bar



100% Stacked Bar

Line



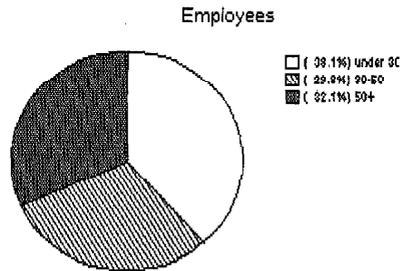
If you selected Pie:

<< CHART DATA >>	
LABEL	
DATA	

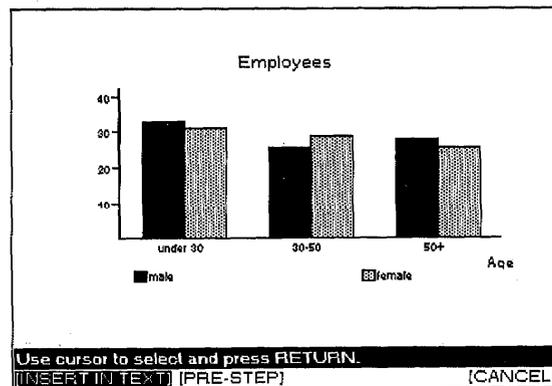
Type data and press CODE + RETURN.

- **LABEL:** The data will appear in each portion of the pie (example: **under 30, 30-50, 50+**). You can input a maximum of 12 items.
- **DATA:** The numeric data will be displayed as relative percentages.

If you use the same example as with the bar charts above, you are no longer able to show separately the number of female and male employees, so enter the sum of these numbers for each age bracket (62, 53, and 58).

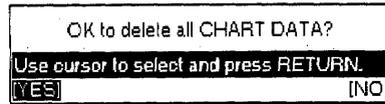


1. Press **CODE + RETURN** to enter the data in the **CHART DATA** window for the bar, line or pie chart. *The NEW CHART window appears:*



2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select an option and press **RETURN**.

- **INSERT IN TEXT:** A chart symbol [☐] appears in the dead column. The title of the chart and an icon showing the type of graph will appear in your document. You will, however, be able to print the complete chart.
- **PRE-STEP:** Returns to the **CHART DATA** window.
- **CANCEL:** Cancels the function. *This window appears:*



3. If you select **YES**, the **Create New Chart** function is canceled and your data is lost. If you select **NO**, you return to the **CHART FORMAT** window.

## Final points

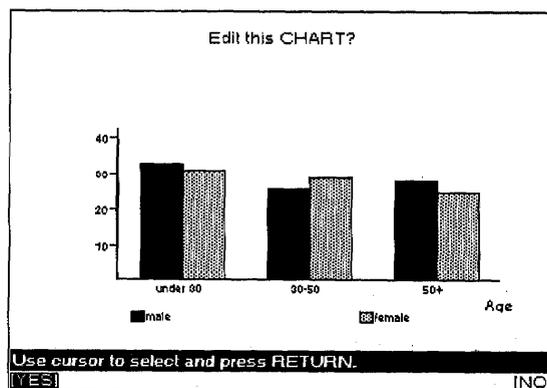
You can go to the previous or next screen by pressing **CODE + PRE S** or **CODE + NEXT S** in a setting screen.

- The numeric data can consist of a maximum of 15 digits (maximum five digits after the decimal point).
- Numeric values greater than 10,000 or smaller than 1 are shortened using these symbols:
  - 10,000 **10K** (thousand)
  - 10,000,000 **10M** (million)
  - 0.01 **10m** (milli)
  - 0.00001 **10μ** (micron)
- Negative values will be set as zero.

## Edit Chart

The Edit Chart function is used to modify an existing chart.

1. Move the cursor to the line with a chart (symbol ☐) to be edited.
2. Press **MENU** and select **Graphics**; then select **Edit Chart** from the function menu. *The arrow cursor will appear next to the ☐ symbol on the screen and the **EDIT CHART** window will appear:*

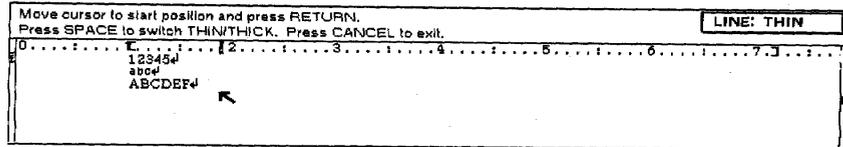


3. Select **YES** to edit the chart, or **NO** to cancel the function. If you select **YES**, the **CHART FORMAT** window will appear. Proceed as you would when creating a new chart.

## Line Framing

The Line Framing function is used to create lines and frames within your document.

1. Press **MENU** and select **Graphics**; then select **Line Framing** from the function menu. *This screen appears:*



2. The cursor is replaced with ↖. To draw a line, move the arrow to the start position for the line and press **RETURN**. The previous message is replaced with:

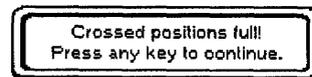
Move cursor to end position.  
Press **RETURN** to draw, **DELETE** to delete.

3. Use the cursor keys or **TAB** to move the cursor symbol (↖) to the end position for the line and press **RETURN**. (You can also press **DELETE** to delete the line.)

Key	Cursor movement
<b>CURSOR UP</b> <b>CURSOR DOWN</b>	5/60 inch
<b>CURSOR LEFT</b> <b>CURSOR RIGHT</b>	10/100 inch
<b>SHIFT + CURSOR UP</b> <b>SHIFT + CURSOR DOWN</b>	1/60 inch
<b>SHIFT + CURSOR LEFT</b> <b>SHIFT + CURSOR RIGHT</b>	2/100 inch
<b>CODE + CURSOR UP</b> <b>CODE + CURSOR DOWN</b> <b>CODE + CURSOR LEFT</b> <b>CODE + CURSOR RIGHT</b>	To move the cursor to the next frame line, left margin, or right margin
<b>TAB</b> right edge, or	To move to the next tab stop, right margin, in multi-columns, next column

- After the start position is set and the cursor is moved, a + sign will appear at that position.
  - Move the cursor horizontally for a horizontal line, vertically for a vertical line, or horizontally then vertically, to draw a box whose diagonal will be defined by the start and end points.
  - If you press [.] while moving the cursor horizontally or vertically in the mode to set the end point, a + sign will appear at the position. When you set the end position, press **RETURN** and you can draw any complex frames.
  - You can set Frame line thickness by pressing **SPACE BAR** to alternate between **THIN** or **THICK**.
  - Press **CODE + D** to delete all of the lines when in the mode to set the start point.
4. Repeat steps 2 and 3 to draw all the lines.
- To change the thickness of an existing line, redraw it with the new thickness.
  - A frame cannot contain more than 23 rows or more than 30 columns. The table below, for example has four columns and three rows:


*If you try to exceed the limit, this window will appear:*



5. When the frame is complete, press **CANCEL** to return to the normal **Input/ Edit** screen. A frame symbol [L] will appear in the dead column. This symbol contains the format information as well as the frame information. If there already is a format change symbol where the frame symbol is to appear, the frame symbol replaces the format change symbol. The frame symbol is displayed at the beginning of the paragraph the cursor was on when you activated the Line Framing function.

## Editing a frame

To edit an existing frame, position the cursor anywhere within the frame text area. Start the Line Framing function and proceed as you would for creating a new frame.

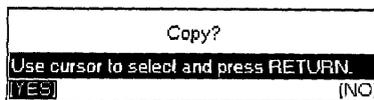
If you position the cursor outside the above-specified area and activate the Line Framing function, the machine will assume that you want to create a new frame.

## Copy Graphic

If you select this function for a line with the format change symbol  $\overline{\square}$  or  $\underline{\square}$ , the chart or line will be cleared.

The Copy Graphic function is used to copy an existing chart or frame to another location in the document or to another document.

1. Move the cursor to the line with a chart symbol  $\overline{\square}$  or frame symbol  $\underline{\square}$  to be copied.
2. Press **MENU** and select **Graphics**; then select Copy Graphic from the function menu. The arrow cursor will appear next to the  $\overline{\square}$  or  $\underline{\square}$  symbol on the screen and this message will appear:



3. Select **YES** to copy or **NO** to cancel the function. *If YES is selected, this message will appear:*

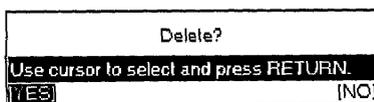
Move cursor to destination of copying and press RETURN.

4. Move the cursor to the destination and press **RETURN**.

## Delete Graphic

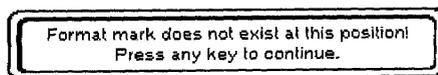
The Delete Graphic function is used to delete an existing chart or frame.

1. Move the cursor to the line with a chart symbol  $\overline{\square}$  or frame symbol  $\underline{\square}$  to be deleted.
2. Press **MENU** and select **Graphics**; then select Delete Graphic from the function menu. The arrow cursor will appear next to the  $\overline{\square}$  or  $\underline{\square}$  symbol on the screen and this message will appear:

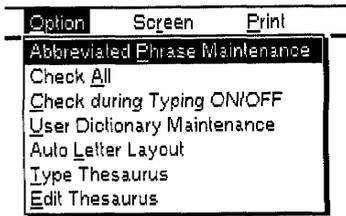


3. Select **YES** to delete the chart or line, or **NO** to cancel the function.

If you select Delete Graphic or Copy Graphic functions when the cursor is not located on the line with a chart symbol  $\overline{\square}$  or frame symbol  $\underline{\square}$ , this message will appear:



# Using the Option Functions



Use the Option functions from the function menu to spell check your text, maintain a user dictionary or abbreviated phrase file, or to format a letter with an automatic layout.

**Abbreviated Phrase Maintenance:** Edits, loads and saves an Abbreviated Phrase file.

**Check All:** Checks spelling in a file.

**Check during Typing ON/OFF:** Checks spelling while typing.

**User Dictionary Maintenance:** Edits, loads and saves a User Dictionary file.

**Auto Letter Layout:** Pre-defines formats for your letters.

**Type Thesaurus:** Provides a list of synonyms for a word.

**Edit Thesaurus:** Provides a list of synonyms for the word at the current cursor position in a file.

## Abbreviated Phrase Maintenance

This function is used to create, edit, print, save, and load an abbreviated phrase file.

The abbreviated phrase function is provided to help you increase your typing speed when you have to type the same phrases repeatedly. You may store the phrases in the abbreviated phrase memory, along with a short name for the phrase.

For instance, you may store the phrase "United States of America" together with the name "USA." Once this has been done, all you have to do to enter "United States of America" in your document is to type "USA" and press **CODE + A (ABBR)**. "USA" will automatically be replaced with "United States of America". ( If you type a name that does not exist in the abbreviated phrase memory and press **CODE + A (ABBR)**, you will hear a beep.)

The abbreviated phrase memory can be saved on diskette and, then retrieved from the diskette. You may create as many abbreviated phrase files as you want, but you may have only one abbreviated phrase file on a diskette.

## Understanding the Abbreviated Phrase Memory

The abbreviated phrase memory is stored in the system for as long as the machine is turned on. If you have created phrases and would like to use these phrases in other files you will be creating later on, you will need to save the phrase memory onto a diskette.

Later, when you want to use the phrases that are stored on a diskette, you must load the file into the memory of the system. For best results, follow these rules:

- Each diskette can hold only one abbreviated phrase file. If you save an abbreviated phrase memory onto a diskette that already contains an abbreviated phrase file, then that file will be overwritten by the new abbreviated phrase file.

- The memory of the machine can hold only one abbreviated phrase memory at a time. If you create an abbreviated phrase memory, and then load an abbreviated phrase file from a diskette, the abbreviated phrase memory in the system will be overwritten by the file loaded from the diskette.

## Creating and editing an Abbreviated Phrase File

Press **MENU** and select **Option**; then select Abbreviated Phrase Maintenance from the function menu. *The ABBREVIATED PHRASE window appears:*

<< ABBREVIATED PHRASE >>

OVER NUM SHIFT

```
ts      : Tom Smith
tw      : typewriter
USA    : United States of America
```

To add, type phrase. To edit, press RETURN. For other options, press MENU.

\_\_\_\_\_ : \_\_\_\_\_

*A list of the abbreviations and corresponding long phrases contained in the current abbreviated phrase memory is displayed.*

**To add a new phrase:** Type the abbreviation, press **TAB** to switch to the long phrase area, then type the phrase and press **RETURN**.

OR

**To edit an existing line of data:** Select the line and press **RETURN**. *The data will appear in the input area.* Edit the data, then press **RETURN** again.

- Use only letters, extra characters, numbers and periods for the abbreviation.

**For other operations:** Press **MENU**. You can select the following functions from Operate:

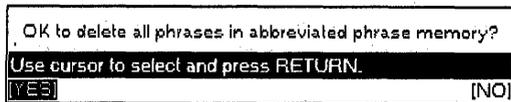
- **Delete:** Deletes an entry (shortcut : **CODE + D**).

*This message appears:*

Move cursor to delete and press RETURN.

Highlight the entry to be deleted and press **RETURN**.

- **Delete all:** Deletes all entries. *This window appears:*



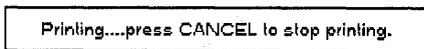
Select **YES** to delete all words, or **NO** to cancel the function.

- **Print:** Prints the current Abbreviated Phrase memory.

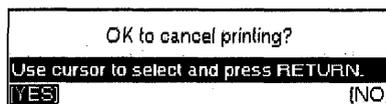
*This message appears:*



Insert a sheet of letter-size paper (portrait orientation) and press **RETURN** to start printing. *This message appears:*



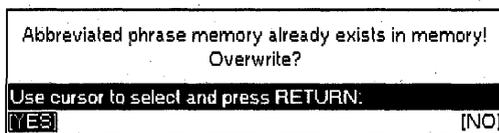
You can stop printing at any time by pressing **CANCEL** and this window will appear:



Select **YES** to cancel printing or **NO** to cancel the function.

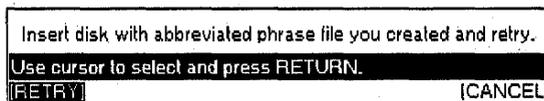
- **Load:** (Loads an Abbreviated Phrase file from a diskette.) Insert a diskette with an abbreviated phrase in the drive before selecting Load.

*If an abbreviated phrase memory exists in the memory, this window appears:*



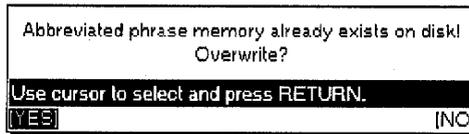
Select **YES** to overwrite the current abbreviated phrase memory or **NO** to cancel the function. Remember that you can have only one abbreviated phrase file in the memory.

*If the diskette does not contain an abbreviated phrase file, this window will appear:*



Insert another diskette and select **RETRY** or select **CANCEL** to quit.

- **Save:** (Saves the current Abbreviated Phrase memory on a diskette.) Insert a diskette in the drive before selecting Save. If the diskette does not contain an abbreviated phrase file, the current abbreviated phrase memory is saved immediately. If the diskette already contains an abbreviated phrase file, this window appears:



Select **YES** to overwrite the abbreviated phrase file stored on the diskette, or **NO** to cancel the function. Remember that you can have only one abbreviated phrase file on a diskette.

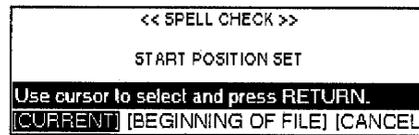
- **Exit:** Exits Abbreviated Phrase Maintenance.

## Check All

*This system is not a replacement for careful proofreading of your documents. It has no way of knowing, for example, whether words are missing or whether a given word is grammatically or syntactically correct. If you type "teh" instead of "the", the spell checker alerts you because "teh" is not a valid English word, but if you type "one" instead of "on", it does not consider it a mistake.*

The Check All function is used to scan your file from the beginning of the file or from the current cursor position and to search for misspelled words, redundant (repeated) words, or capitalization errors.

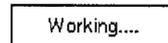
1. Press **MENU** and select **Option**; then select Check All from the function menu. *The **DICT** indicator on the status line will be highlighted and the **SPELL CHECK** window will appear:*



2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select the desired action and press **RETURN**.

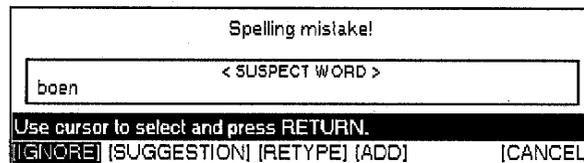
- **CURRENT:** Starts Spell Check from the current cursor position.
- **BEGINNING OF FILE:** Starts Spell Check at the beginning of the file.
- **CANCEL:** Exits Spell Check.

*While the Spell Check is scanning your file, the following message is displayed:*



## Misspelled words

If a misspelled word — a word that is not in the Spell Check dictionary or in your User Dictionary — is found, a window like this will appear:



Use **CURSOR LEFT** and **CURSOR RIGHT** to select the desired action and press **RETURN**.

- **IGNORE:** Leaves this word unchanged and resumes scanning. Use this option for a word that is correct though not standard English, and when you do not want to add the word to your User Dictionary (a name that is seldom used in your files, for example).

- **SUGGESTION:** Displays a list of similar words. Use **CURSOR UP** and **CURSOR DOWN** to select the correct word and press **RETURN** to automatically replace the misspelled word in your file with the correct word. If the desired word is not listed, press **CANCEL**. If the system has nothing to suggest, press **RETURN**. In both cases you return to the **SPELL CHECK** window and you can select another option.

<< SUGGESTION >>	
SUGGESTION(S):	
bone	
Ben	
bon	
boon	
< SUSPECT WORD >	
boen	
Select word and press RETURN.	

- **RETYPE:** Enables input of a word when you think it is faster than asking for a suggestion, or when the system is not able to suggest the desired word. Type the correct word on the window and press **RETURN** to replace the misspelled word in your file and resume scanning:

<< RETYPE >>	
WORD:	
< SUSPECT WORD >	
boen	
Type word and press RETURN.	

- **ADD:** Enables input of correct words that are not in the Spell Check dictionary, but are perfectly correct and frequently used in your files. *If the word is accepted, it will be inserted in your User Dictionary and this message will appear:*

Word added to user dictionary.

If you have no User Dictionary, the system will create one. If the word cannot be added to the User Dictionary, the window shown below will appear. Press **RETURN** to return to the previous window:

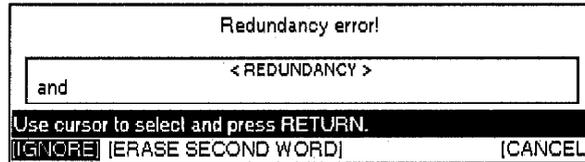
Spelling mistake!	
< SUSPECT WORD >	
AxB	
Invalid for dictionary. Press RETURN.	

Once a word is in your User Dictionary, the Spell Checker will not stop at further occurrences of the word.

- **CANCEL:** Closes the Spell Checker and returns to the document.

## Redundant words

If a redundant word—a word that is repeated, like “and and”—is found, a window like this will appear:

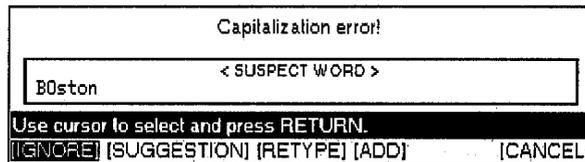


Use **CURSOR LEFT** and **CURSOR RIGHT** to select and press **RETURN**.

- **IGNORE:** Leaves the word unchanged and resumes scanning.
- **ERASE SECOND WORD:** Automatically deletes the repeated word and resumes scanning.
- **CANCEL:** Closes the Spell Check.

## Capitalization mistakes

If a word with uncommon capitalization is found, a window like this will appear (The procedure is the same as when a misspelled word is found):



## Check During Typing ON/OFF (Spell Check)

When "Check during Typing ON/OFF" is selected from the Function menu, the DICT indicator on the status line is highlighted, and Spell Check checks your text as you type it. Unless you make mistakes, you will not notice that Spell Check is actually activated. When you make a mistake (misspelled or redundant word, mistaken capitalization), the appropriate window will appear. You can then proceed as you would with the Check All function.

To turn the function off, select Check during Typing ON/OFF on the function menu.

## User Dictionary Maintenance

The User Dictionary allows you to add new words, delete old ones, save the User Dictionary file on diskette, or load a User Dictionary file from diskette.

## Understanding the User Dictionary

Spell Check comes with a built-in dictionary containing standard English words. (You cannot modify the built-in dictionary.)

If you are frequently using people's names, company names, or other nonstandard English words, Spell Check will consider these words as suspect words — even if they are perfectly correct. To prevent this from happening, you can create your own

dictionary. When you have such a User Dictionary in the memory, Spell Check will not stop at a word that is in your User Dictionary, even if the word is not in its built-in dictionary.

A user dictionary is created automatically when you select the **ADD** function of Spell Check to add a word to the dictionary.

This dictionary is held in the memory of the machine for as long as the machine is turned on. If you add words to the user dictionary and would like to use the same dictionary for checking other files, you must save the user dictionary onto a diskette before switching your system off. Later, when you want to use that same dictionary, you must load the dictionary from the diskette. When working with the user dictionary, keep the following limitations in mind:

- Each diskette can hold only one user dictionary. If you save a user dictionary onto a diskette that already contains one, the dictionary previously on the diskette will be overwritten by the new user dictionary.
- The memory of the machine can hold only one dictionary. If you create a dictionary in the memory, and then load a dictionary from a diskette, the one currently in the memory will be overwritten by the dictionary loaded from the diskette.

## Adding a word to the User Dictionary

The simplest way to add a word to the User Dictionary is to use the **ADD** option of the **SPELL CHECK** window. A second way to enter words in the user dictionary is to use the User Dictionary Maintenance function.

1. Press **MENU** select **Option**; then select **User Dictionary Maintenance** from the function menu. *The User Dictionary window shown below will display a list of the words contained in the current User Dictionary.*

WORD:  
\_\_\_\_\_

< MESSAGE >

< HOW TO EDIT USER DICTIONARY >  
To add, type word and press RETURN.  
Press MENU for other options.

TOTAL:  
2 word(s)

LIST:  
Benoit  
Cathy

2. Start typing the new word. *The cursor will automatically jump to the entry field at the top of the window.*
3. Press **RETURN** to enter the new word. *It will be displayed in the list.*

## Editing the User Dictionary

1. Press **MENU** select **Option**; then select User Dictionary Maintenance from the function menu. *The User Dictionary window shown above will display a list of the words contained in the current User Dictionary.*
2. Press **MENU**; then select press **O** to select the Operate menu. You can select the following functions from Operate:

- **Delete:** Deletes a word (shortcut: **CODE + D**). *This message will appear:*

< MESSAGE >  
Move cursor to delete and press RETURN.

Highlight the word to be deleted with the **CURSOR UP** or **CURSOR DOWN** key and then press **RETURN**.

- **Delete all:** Deletes all entries. *This window appears:*

OK to delete all words in user dictionary?  
Use cursor to select and press RETURN.  
[YES] [NO]

Select **YES** to delete all words, or **NO** to cancel the function.

- **Load:** Loads a User Dictionary file from a diskette. Insert a diskette with a User Dictionary in the drive before selecting Load. If a User Dictionary is already in the memory, this window will appear:

User dictionary already exists in memory!  
Overwrite?  
Use cursor to select and press RETURN.  
[YES] [NO]

Select **YES** to overwrite the current User Dictionary, or **NO** to cancel the function. Remember that you can have only one User Dictionary in the memory.

OR

If the diskette does not contain a User Dictionary, this window will appear:

Insert disk with user dictionary file you created and retry.  
Use cursor to select and press RETURN.  
[RETRY] [CANCEL]

Insert another diskette and select **RETRY**, or select **CANCEL** to quit.

- **Save:** Saves the User Dictionary on a diskette. Insert a diskette in the drive before you select **Save**. If the diskette does not contain a User Dictionary, the current User Dictionary is saved immediately. If the diskette already contains a User Dictionary, this window will appear:

User dictionary already exists on disk!  
Overwrite?  
Use cursor to select and press RETURN.  
[YES] [NO]

Select **YES** to overwrite the User Dictionary stored on the diskette, or **NO** to cancel the function. Remember that you can have only one User Dictionary on a diskette.

- **Exit:** Exits from the User Dictionary mode.

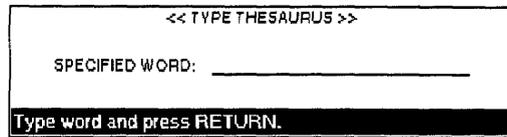
## Auto Letter Layout

The Auto Letter Layout function allows you to use the predefined formats for your letters. For details, see "Auto Letter Layout" on page 201.

## Type Thesaurus

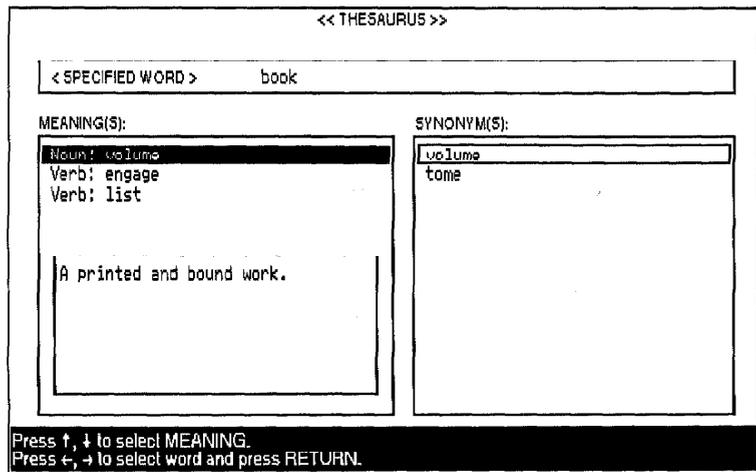
You can use the Thesaurus function during typing when you want to find a word better suited than the one you have in mind. For example, if you want a synonym for "book":

1. Instead of typing the word in your text, press **MENU** and select **Option**; then select Type Thesaurus from the function menu. *The thesaurus asks for a word:*



A rectangular window titled "<< TYPE THESAURUS >>". Inside, the text "SPECIFIED WORD:" is followed by a horizontal line for input. At the bottom, a dark bar contains the instruction "Type word and press RETURN."

2. Type the word ("book" in our example) and press **RETURN**. *The THESAURUS window appears:*



A rectangular window titled "<< THESAURUS >>". At the top, a box contains "< SPECIFIED WORD >" followed by "book". Below this are two columns: "MEANING(S):" and "SYNONYM(S):". The "MEANING(S):" column lists "Noun: volume", "Verb: engage", and "Verb: list", with a definition box below containing "A printed and bound work." The "SYNONYM(S):" column lists "volume" and "tome". At the bottom, a dark bar contains instructions: "Press ↑, ↓ to select MEANING." and "Press ←, → to select word and press RETURN."

The MEANING(S) lists the possible parts of speech for the specified word. In our example, "book" can be a noun or a verb. Synonyms for the word are listed, and a box at the bottom of the screen shows a short definition of the word. When you select the definition and press RETURN, the MEANING(S) will change to SYNONYM(S) box and display synonyms of the definition.

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to go from one column to the other, **CURSOR UP** and **CURSOR DOWN** to move inside a column.
4. Press **RETURN** to insert the selected word in your text, or **CANCEL** if you cannot find an appropriate word.
  - If the system cannot find a synonym for the specified word, this window appears instead of the **THESAURUS** window:

No synonyms!  
Press any key to continue.

## Edit Thesaurus

This Edit Thesaurus is used when revising text. It allows you to automatically replace a word with a better synonym.

1. Move the cursor to the word that you want to replace and press **MENU**.
2. Select **Option**; then select Edit Thesaurus from the function menu. *The THESAURUS window will appear.*

<< THESAURUS >>

< SPECIFIED WORD >    book

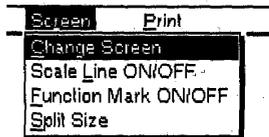
<p><b>MEANING(S):</b></p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <p>Noun: volume</p> <p>Verb: engage</p> <p>Verb: list</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>A printed and bound work.</p> </div>	<p><b>SYNONYM(S):</b></p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <p>volume</p> <p>tome</p> </div>
--	---

Press ↑, ↓ to select MEANING.  
Press ←, → to select word and press RETURN.

3. Select a synonym in the same way as you would with the Type Thesaurus function, and press **RETURN** to replace the current word with the selected synonym.

# Using the Screen Functions

---



Use the following Screen functions from the function menu to control the system's display:

**Change Screen:** Moves the cursor from one file to the other in dual mode.

**Scale Line ON/OFF:** Switches the scale line on/off.

**Function Mark ON/OFF:** Switches the text symbols on/off.

**Split Size:** Adjusts the size of the screen area used to display each file in dual mode.

## Change Screen

The Change Screen function is used to go from one file to the other in dual mode.

Press **MENU** and select **Screen**; then select Change Screen from the function menu. (Short cut: **CODE + Q**) *The file name of the active file (the file on which the cursor is located) is highlighted. The cursor will move to the last selected cursor position.*

When you are using the dual mode, the following information is shared by the two files:

- The status of the keyboard (shift lock, caps lock, num lock)
- The status of the Insert or Overwrite mode.

## Scale Line ON/OFF

The Scale Line function is used when either one or two files are displayed to change the viewing space available for your documents.

Press **MENU** and select **Screen**; then select Scale Line ON/OFF from the function menu. *The Scale Line will toggle on and off.*

## Function Mark ON/OFF

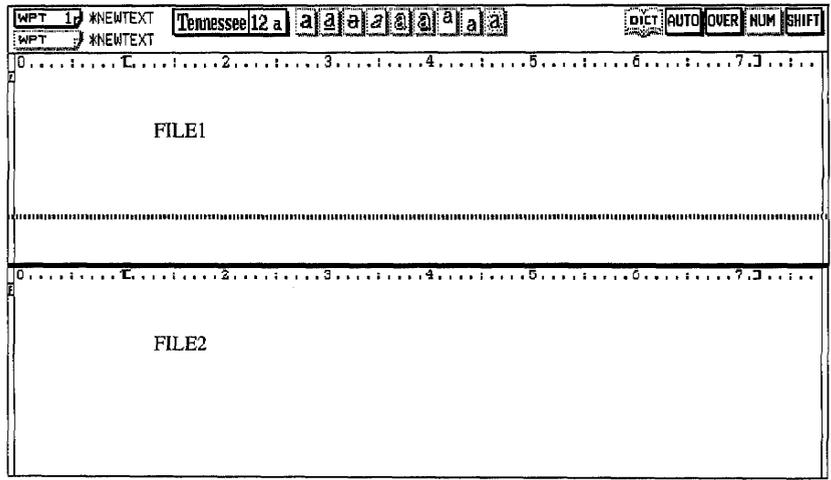
The Function Mark function is used to switch the text symbols (such as return or page break symbols) on or off. Press **MENU** and select **Screen**; then select Function Mark ON/OFF from the function menu.

## Split Size

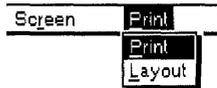
When you open a second file in dual mode, the screen is split into halves. Split Size is used to allow you to change the height of one of the windows so you can see more of one document at a time.

1. Press **MENU** and select **Screen**; then select Split Size from the function menu. *A dotted line appears at the boundary line between the two files.*

2. Use **CURSOR UP** and **CURSOR DOWN** to move the boundary line up or down and press **RETURN**. *If you press **CANCEL** instead of **RETURN**, the screen returns to the condition it was in before you started the operation.*



# Using the Print functions



Use the **Print** functions from the function menu to preview and print your document.

**Print:** Prints your document.

**Layout:** Previews your document to proof for printing.

## Printing a Document

The print function allows you to print the current document.

1. Press **MENU** and select **Print**; then select **Print** from the function menu. (Short cut: Press **PRINT**.) *The WORD PROCESSING PRINT MENU window will appear:*

```

<< WORD PROCESSING PRINT MENU >>

STARTING PAGE:   _ 1   HEADER PRINT:   YES
ENDING PAGE:    999   FOOTER PRINT:   YES
NUMBER OF COPIES: _ 1   CUT SHEET FEEDER: ON
PRINT QUALITY:  FINE   MERGE PRINT:   NO
                   (FILENAME: __.MRG)

Type number and press RETURN.

```

2. Use **CURSOR UP**, **CURSOR DOWN**, **CURSOR LEFT** and **CURSOR RIGHT** to move the cursor to the desired setting. Type the desired values or use the **SPACE BAR** to change the settings. Press **RETURN** when finished.
  - **STARTING PAGE:** The page number of the first page to be printed.
  - **ENDING PAGE:** The page number of the last page to be printed. (The ending page number must be greater than the starting page number.)
  - **NUMBER OF COPIES:** The number of times the document is to be printed (maximum 999).
  - **PRINT QUALITY: FINE** For final copy quality printing.
  - **PRINT QUALITY: DRAFT** For trials. (With this setting, you save time and ink.)
  - **HEADER PRINT: YES** Prints headers. (has no effect if you have not defined headers).
  - **HEADER PRINT: NO** Prints without headers.
  - **FOOTER PRINT: NO** Prints without footers.
  - **CUT SHEET FEEDER: OFF** Cut sheet feeder is not attached, or you are using manual paper feed with the cut sheet feeder.
  - **CUT SHEET FEEDER: ON** Cut sheet feeder is attached, and you wish to use it for automatic paper feed.

*If you specify a starting page number that does not exist, printing will not start.*

- **MERGE PRINT: YES** Merges data from an Addressbook file into your document. *When you select YES, this message appears:*

Press **TAB** to open **MERGE FILE INDEX**.

Press **TAB** to display the list of the Addressbook files stored on the current diskette.

Use the cursor keys to select a file name and press **RETURN**. *The file will be loaded and the file name will appear under **MERGE PRINT / YES**.*

- **MERGE PRINT: NO** Prints without merging. (This setting cancels merge printing even if you have selected an Addressbook file.)

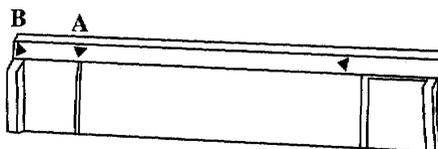
3. Press **RETURN** to enter the settings of the Document Print Window. *This message appears:*

Insert paper and press **RETURN**.

4. Set paper according to your Page Setup.

If the paper size is less than 10.55 inch (Letter Portrait, A4 Portrait & A5 Portrait), please align the paper with the mark (A).

If the paper size is more than 10.55 inch, align the paper with the mark (B). If you think the left margin is too large at this time, align the paper with the appropriate position.



5. Press **P INS** to insert the paper. Press **RETURN** to start printing. *This message appears:*

Printing....press **CANCEL** to stop printing.

If you press **CANCEL** to stop printing, *this window appears:*

OK to cancel printing?  
Use cursor to select and press **RETURN**.  
[YES] [NO]

Select **YES** to cancel printing, or **NO** continue printing.

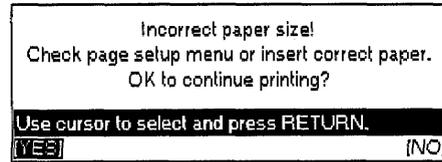
- If the paper has not been inserted or is jammed or cannot be ejected, this message will appear:

Paper feed problem!  
Insert paper correctly.  
OK to continue printing?  
Use cursor to select and press **RETURN**.  
[YES] [NO]

The maximum length of paper that can be printed is 14.33 inch.

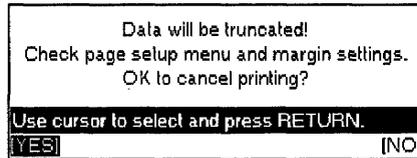
Remove the jammed paper manually, press **P INS** to feed the paper, and select **YES** to continue printing or **NO** to cancel.

- If the paper is shorter than specified in Page Setup, this message will appear:



Press **P INS** to feed the paper, and select **YES** to restart printing, or **NO** to cancel. The portion of the previous page that could not be printed will print from the top of the new sheet of paper.

- At the beginning of the line to be printed, if the text is found to extend outside the size of the paper, printing will be interrupted at that point and this message will appear:



Select **YES** to stop printing to confirm margin settings, or **NO** to truncate data and continue printing.

## Merge printing

Merge symbols with a label name that does not exist in the Addressbook file are ignored. The same happens when there is no data in the Addressbook for the specified record.

If you set **MERGE PRINT / NO** for a document that contains merge symbols, the label names are printed as they appear on screen.

## Using Layout to Preview a Document

You can use **CURSOR UP** to preview the previous page, and **CURSOR DOWN** to preview the next page.

This function is used to preview a full page as it will appear when you print it. (In a multi-page document the previewed page is the one the cursor is on when you start the function.)

1. Press **MENU** and select **Print**; then select **Layout** from the function menu. (Short cut: Press **CODE + LAYOUT**)
2. Press **RETURN** to return to the Input/Edit screen. *The page displayed last in the LAYOUT screen appears in the normal display.*



# 3 Spreadsheet

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## What is a Spreadsheet?

---

In the past, financial records for any type of business or other organization were always kept by hand in bound form, hence the term “keeping the books.” A sales ledger, for instance, might be laid out as a graph, with the months of the year across the top, and the names of sales personnel or merchandise down the left column. This type of accounting tool had another name; it was called a “Spreadsheet.”

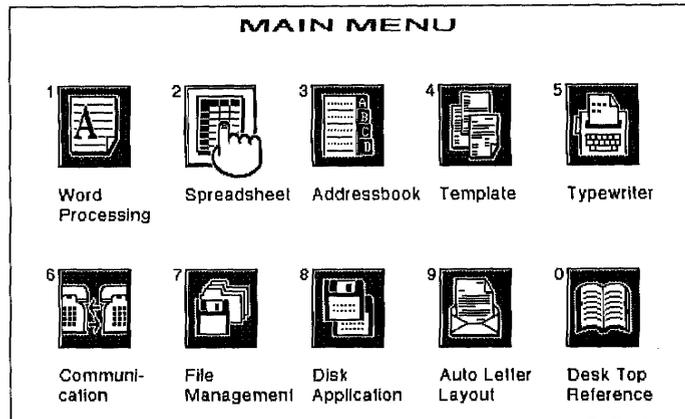
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	TOTAL
A) Household Items										
Mortgage/Rent	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Heat/Water	110	110	100	80	70	70	60	60	60	960
Gas & Electric	35	35	35	30	25	25	25	25	30	350
Phone	35	35	35	35	35	35	35	35	35	420

Even with an electronic calculator, bookkeeping is still a difficult task, especially when revisions or corrections are to be made. This is the major advantage of the electronic spreadsheet: the ability to make changes and corrections at any time, and have all the calculations made for you, quickly and easily.

# Starting the Spreadsheet Application

You have a choice of creating your own spreadsheets or of using one of the pre-formatted templates. For details, see "Template" on page 149.

In order to use the templates effectively, you must first understand how to use the spreadsheet functions. Review the following sections for complete details on the spreadsheet features and capabilities.

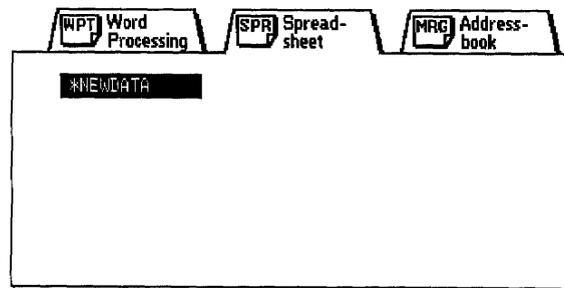


To create a new spreadsheet or recall a stored spreadsheet for editing:

If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in *Getting Started* for the procedures on how to initialize a diskette.

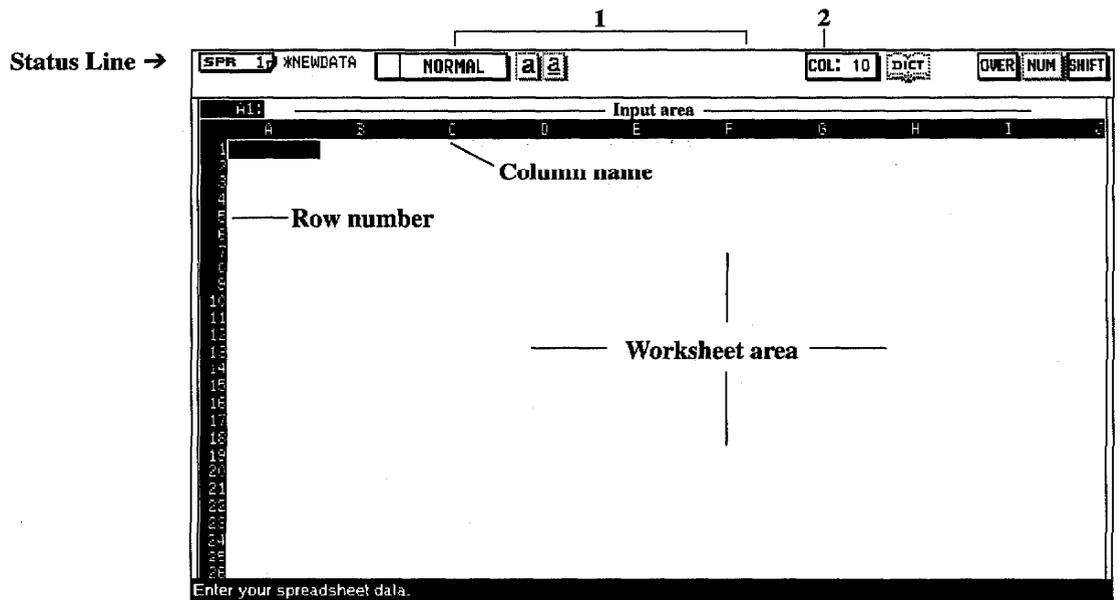
You can retrieve Spreadsheet files created with your machine (extension *SPP*), or Spreadsheet files created with Lotus® 1-2-3® (extension *WK1*). Some Lotus® 1-2-3® files will automatically be converted to your machine's format before being loaded. Since a particular Lotus® 1-2-3® file may use functions that are not available on your machine, the conversion is sometimes incomplete. For details, see "Converting a Lotus® 1-2-3® file into a Spreadsheet file" on page 192.

1. Switch the power on to display the Main Menu.
2. If you want to retrieve a spreadsheet file from a diskette, insert that diskette into the drive.
3. Press **2**, or use the cursor keys to move the finger cursor to highlight the Spreadsheet icon, and press **RETURN**. If a diskette is inserted, the list of Spreadsheet files stored on the diskette appears:



4. You can now use the cursor keys to highlight the file you want to retrieve and press **RETURN**. To start working with a new document, press **RETURN**. The *Input/Edit* screen appears.

# The Input/Edit Screen



The Input/Edit screen is divided into three different areas:

**Status Line:** The indicators on the status line show your current settings. From left to right:

1. The settings of the cell the cursor is positioned on (default: Normal).
2. The column width (default: 10).

**Input area:** The upper row of the screen is called the input area. It indicates the cell which is currently highlighted in the worksheet area, and allows you to input or modify the contents of that cell.

**Worksheet area:** The rest of the screen is called the worksheet area. It is divided into cells, designated by their positions or address on the grid, so that the cell at the top left of the worksheet becomes A1, the cell diagonally to the right and below it B2, etc.

There are two different *modes* for creating and formatting your spreadsheets:

**Input/Edit mode:** In the Input/Edit mode you can insert and change data within individual cells. You know that you are in the Input/Edit mode when a text cursor appears in the input area.

**Command mode:** In the Command mode, you can move the cell cursor on the worksheet, and you have access to the function menu to perform large scale modifications.

Pressing **CODE + H** (**HELP**) displays a list of keys you can use in the Spreadsheet (Input/Edit or Command)

## Moving Around the Screen

When you call up the Input/Edit screen, the cursor will be in cell A1, ready for input. The cursor can be moved with **CURSOR LEFT**, **CURSOR RIGHT**, **CURSOR UP**, and **CURSOR DOWN** to highlight any cell and to tell the Spreadsheet program where you wish to input. You will notice that only a portion of the Spreadsheet is shown on the screen. The Spreadsheet extends far beyond what the screen is able to display at one time. You may input data into as many as 256 columns and 256 rows.

It is also possible to move the cursor faster through the spreadsheet:

- **CODE +** a cursor key moves the cursor to a border of the screen.
- Press **CODE + G(GOTO)**. *This window appears:*



GOTO:

Type cell address and press RETURN or use arrow keys to move to data top, bottom, left or right.

You can move the cursor to the designated cell by typing cell address and pressing **RETURN**.

- **CURSOR LEFT** or **CURSOR RIGHT** moves the cursor to the first or last column containing data of that same row, while **CURSOR UP** or **CURSOR DOWN** moves the cursor to the first or last row containing data in that same column in the spreadsheet. In both cases, the cursor moves vertically or horizontally in the direction of the cursor key arrow mark.

# Entering and Editing Data

---

*There is a possibility that the system may run out of memory before filling the entire Spreadsheet with data. The system will warn you of this with the message "Memory full! Press any key to continue." At this point, you will no longer be able to enter data, only delete it. We recommend that you save your file to the diskette and continue with a new spreadsheet file.*

*Do not worry if the data you type does not appear exactly the same when it is transferred to a cell. During that transfer, the data is processed in several ways. For example, a formula is calculated, a piece of text is formatted. The result of that process appears in the cell, but the data will reappear in the input area in its original form when the cell is selected again.*

With a paper spreadsheet, you write the data directly in the cells of the sheet. With an electronic spreadsheet, you highlight the cell in the worksheet, then type or edit the contents of the cell in the input area.

To enter data in an empty cell, select that cell and type the data. A text cursor will appear in the input area as soon as you start typing; this means that the spreadsheet application switched to the Input/Edit mode. Press **RETURN** when you have finished. The data will appear in the cell.

Proceed in exactly the same way to replace old data with new data. The old data will disappear from the input area as soon as you start typing. The new data will appear in the cell when you press **RETURN** after retyping.

To edit old data without deleting it, highlight the cell, then press **TAB**. The cursor appears in the input area and you may now edit the data. Press **RETURN** when the data has been edited.

While typing in the input area, you can use the following keys:

- All character keys, including special characters obtained with the **CODE**, **CODE + 5 (E CHAR)** and **CODE + 4 (SYMBOL)** keys.
- **CODE + 7 (NUM-L)** to lock the keyboard in numerics.
- **CODE + P BREAK** to input a page break symbol "⏏"; during printing, paper will be ejected at that point after the row is printed.
- **CANCEL** to restore the contents of the cell as they were before you started editing. This is useful when you mistakenly start editing a cell that did not need editing.
- **BACKSPACE** to delete one character to the left of the cursor.
- **DELETE** to delete the character highlighted by the cursor.
- **WORD OUT** to delete one word to the left of the cursor.
- **CODE + LINE OUT** to delete all characters from the input area.
- **CODE + I (INSERT)** to alternate between the insert/overwrite modes.
- **CURSOR LEFT** to move one position to the left.
- **CURSOR RIGHT** to move one character to the right. If the cursor is to the right of the last character, this key enters the data and selects the next cell to the right.
- **CODE + EXPR** to move the cursor to the first character.
- **CODE + RELOC** to move the cursor to the right of the last character.

After typing or editing the data in the input area, you can transfer it to the selected cell using one of these keys:

- **RETURN** to transfer the data to the cell and keep the same cell selected.
- **CURSOR RIGHT** to transfer the data to the cell and select the next cell to the right. This works *only* if the text cursor is to the right of the last character in the input area.
- **CURSOR UP** to transfer the data to the cell and select the next cell above.
- **CURSOR DOWN** to transfer the data to the cell and select the next cell below.

## ***Inputting Alphanumeric and Numeric Data***

Your Spreadsheet application can handle two kinds of data: **numeric** and **alphanumeric**.

**Alphanumeric data** are combinations of characters (letters, digits, and other characters) used as a label or title to identify the entries of the spreadsheet. Alphanumeric data is usually used as a column heading, such as "JAN." or "12th Region." This data is not calculated.

**Numeric data** are direct numbers or formulas and are calculated.

Since alphanumeric data can contain digits, and numeric data can contain letters (cell addresses), it is important to understand exactly how the spreadsheet application distinguishes between alphanumeric and numeric data.

Follow these rules:

- If the data begins with one of these characters:

+ - ( @ 1 2 3 4 5 6 7 8 9 0 .

the data is considered numeric.

**Example:** (A1) and 1+A1 are numeric.

- If the data begins with any other character, the data is considered alphanumeric, and the spreadsheet application automatically inserts a single quote mark ( ' ) before the data in the input area:

**Example:** 'Cost and 'A1 are alphanumeric.

This single quote mark is called a **format mark** (see next page for more details).

- To make sure that data such as a telephone number or a date is correctly interpreted as alphanumeric, you should type a format mark before the data.

**Example:** 10-12-1993 is calculated and gives -1995

'10-12-1993 gives 10-12-1993

- To make sure that a formula is not interpreted as alphanumeric data, never start a formula with a cell address. Instead, use the + sign or parentheses.

**Example:** (A1+1) or +A1+1 are interpreted as formulas and are calculated.

If you do not start with the + sign or the left parenthesis, the spreadsheet application will insert a single quote mark.

## Format Marks

A default single quote mark appears automatically in the input area when the spreadsheet recognizes your data as alphanumeric. If you delete it, it will automatically reappear when the alphanumeric data is confirmed.

Instead of typing the format mark for right alignment ("), you may press **CODE + R**. The format mark for centering (^) does not appear on the keyboard, you must use **CODE + F**. If you press these keys while in Command mode, the machine switches to the Input/Edit mode and the corresponding mark appears in the input area.

Format marks are typed before the data and tell the spreadsheet application that whatever follows is alphanumeric and is not to be calculated.

Format marks also tell the spreadsheet application how to position the data in the cell. You can use one of these four format marks:

- ' (single quote) to align the data to the left of the cell.
- " (double quote) to align the data to the right of the cell (**CODE + R**).
- ^ to center the data in the cell (**CODE + F**).
- ! fills the cell by repeating the character following the mark.

Format marks are displayed in the input area only (They never appear in the cell). The above characters are interpreted as format marks when they are entered in the first position of the input area. If they are entered in the middle of the data, they are considered as common characters and will appear in the cell.

## Maximum Length of Data

The maximum length of the input area is 240 characters (1 format mark and 239 characters).

When alphanumeric data cannot fit into the cell, it will use the next cells of the worksheet unless these cells are already occupied.

This convenient feature is used for long titles (when you do not want to disturb the layout of the spreadsheet by increasing the width of a column). It should be noted that entering many long pieces of alphanumeric data may cause the memory to become full before all cells are filled. Also, adjusting the width of many columns to display long pieces of alphanumeric data may cause truncation of the rows when the spreadsheet is printed.

# Performing Calculations

Numeric data are direct numbers or formulas and are calculated. When data is recognized as numeric, Spreadsheet will check whether or not the data is valid.

- If the data is valid, the result (a number) is calculated. If the number can fit in the cell, it is automatically **right-aligned**. If the number cannot fit in the cell, a string of asterisks will fill the cell. The correct number is, however, kept in the memory, and will be displayed if you adjust the width of the column.
- If the data is not valid, **ERROR** will be displayed in the cell, and one of the following messages will appear:

When a denominator is zero.

Division by zero!  
Press any key to continue.

When a result is positive and contains more than 10 digits.

Numeric overflow!  
Press any key to continue.

When a result is negative and contains more than 10 digits.

Numeric underflow!  
Press any key to continue.

If a number contains characters other than numeric ones and a decimal point (e.g. 1,000, 100\$, 1A2).

Invalid entry!  
Press any key to continue.

## Direct Numbers

A direct number is made of digits and possibly a decimal point. Other characters will make the data invalid for calculation. The maximum number of digits is 10 to the left of the decimal point and 5 to the right (zeroes preceding other digits are not counted). Here are some examples of valid and invalid numbers:

Valid	Invalid
1234	1,000 (comma is invalid)
0.94956	125\$ (\$ is invalid)
00001	12a12 (a is invalid)
000000000000001 (zeroes are ignored)	99999999999 (more than 10 digits)

## Formulas

A formula is made of **operators**, **operands**, and possibly **pairs of parentheses** to control the order of calculation.

**Operators:** The operators that are recognized by the system are, in order of precedence:

<b>Symbol</b>	<b>Operator</b>
+ -	Positive and negative sign
#	Exponentiation
* /	Multiplication, division
+ -	Addition, subtraction

The following rules apply to using operators in formulas:

- The + and - operators are considered as the positive or negative sign of the following operand when they come first in a formula, immediately after a left parenthesis or another operator.
- The # operator performs only integer exponentiation. If the exponent (the next operand after #) has a decimal value, it will be rounded to the closest integer before exponentiation is performed. Therefore, this operator cannot be used to calculate roots (although roots can always be written as a decimal exponent in math). Zero with any positive exponent gives zero. Zero with a negative exponent gives "Invalid entry! Press any key to continue."
- Division by zero is invalid.
- A sequence of three or more operators makes a formula invalid ( $2+*-1$  is invalid).
- A sequence of two operators is valid only if the second operator is a + or - sign.

**Example:**  $5*-2$  is valid and gives -10  
 $1*-2$  is invalid.

**Operands:** An operand can be a valid number, the address of a cell containing numeric data, a function, or a valid formula included in a pair of parentheses. Here are some examples of valid operands:

<b>Valid Operand</b>	<b>Operand Description</b>
123	valid direct number
A1 or a1	cell address
@SUM(A1..B6)	valid function
(A1+5*@SUM(B1..B12))	valid formula included in a pair of parentheses

Please remember the following rules about operands:

- A cell address can be written using either upper or lower case letters.

When a cell address has to come first in a formula, it must be preceded with a + or - sign, or by a left parenthesis. Otherwise, the formula will be considered alphanumeric data and will not be calculated. Therefore, instead of  $A1+A2$ , enter  $+A1+A2$ ,  $(A1+A2)$ , or  $(A1)+A2$ .

- If a cell that is referred to while doing a calculation contains alphanumeric data, the formula is invalid, and **ERROR** will be displayed. An empty cell, however, is valid and assumed to contain zero.

## Order of Calculation of a Formula

The calculation of a formula is performed in the order of precedence of the operators:

1. The + or - sign is applied to the operand directly to the sign's right.
2. Exponential calculations are performed.
3. Multiplication and division calculations are performed.
4. Addition and subtraction calculations are performed.

**Example:**  $2\#3^4-2$   
 $8^4-2$   
 $32-2$   
30

When two or more operators have the same order of precedence (multiplication and divisions, or addition and subtraction), calculation is carried out from left to right.

**Example:**  $1+3+4-2$                        $2\#3\#2$   
 $4+4-2$                                    $8\#2$   
 $8-2$                                          $64$   
6

To modify the order of calculation, you may use pairs of parentheses. The formula in parentheses is calculated first.

**Example:**  $1+3^4$                        $(1+3)^4$   
 $1+12$                                    $4^4$   
13                                        16

Parentheses can contain other pairs of parentheses. Calculation proceeds from the innermost pair of parentheses.

**Example:**  $((3^4+1)^4+3)^4-12$   
 $(13^4+3)^4-12$   
 $55^4-12$   
 $220-12$   
208

One pair of parentheses can contain up to 5 other pairs. Using more than 5 pairs of parentheses in one pair of parentheses makes the formula invalid. The formula will also be invalid if parentheses do not come in pairs.

Parentheses can be used for the simple purpose of making the data numeric.  $(A1+A2)$  or  $(A1)+A2$  can be used instead of  $+A1+A2$ .

## Using Math Functions

Math functions are very useful for making formulas shorter and easier to edit.

A math function performs specific operations on a single argument or on a list of arguments. Arguments are included in a pair of parentheses following the function name. A function name always starts with the character @.

**Arguments** are the numeric data that the function will process to return a result. Valid arguments are numbers, characters within double quote marks (" ") (only for @REPEAT and @IF) and/or cell addresses separated with commas, or a range defined by the addresses of two opposite corners, separated with two periods (..).

**Example:** @SUM(1,A1,4,B6) returns the sum  $1+A1+4+B6$

@SUM(A1..B4) returns the sum  $A1+B1+A2+B2+A3+B3+A4+B4$

- Some functions like @INT accept only one argument. In that case, using more than one argument or using a range makes the formula invalid.
- A range can be used simultaneously with numbers or addresses.

**Example:** @SUM(1,A1..B4) and @SUM(A23,A1..B6) are valid.

A **function** is a valid operand of a formula and a formula is a valid argument of a function.

**Example:**  $1+A1+@SUM(B2..C5)$  is a valid formula.

@SUM(1+2), @SUM(+A1), and @SUM(1+A1) are valid.

## Range of cells

A range is no more than a group of cells enclosed in a rectangle, and therefore, can be specified by the addresses of two opposite corners. When using math functions, you specify a range using the notation A1..C3, for example. You could also specify the same range with A3..C1, C1..A3, or C3..A1.

C2: 6	A	B	C	D	E	F	G	H	I	J	K
1	Range A1..C3, A3..C1, C1..A3, or C3..A1			This is not a range.							
2											
3											
4											
5											

## Inputting a range

Rather than typing in the cell address at each corner of the range, you can mark and highlight the range to be used. The spreadsheet will automatically define the top left and bottom right corners of the range.

Suppose you want to calculate the sum of the range A1..C2 and display the result in D2. First enter the data shown below.

C2:	6											
	A	B	C	D	E	F	G	H	I	J	K	
1	1	2	3									
2	4	5	6									

1. Move the cursor to D2 and type @SUM(. As soon as you type the left parenthesis of the function, the following message appears:

Enter cell specification.

2. Instead of typing A1, move the cursor to A1 and press **CODE + L**. @SUM(A1.. is now displayed in the input area.

D2:	@SUM(A1..											
	A	B	C	D	E	F	G	H	I	J	K	
1	1	2	3									
2	4	5	6									

3. Move the cursor to the opposite corner of the range (C2).

C2:	@SUM(A1..											
	A	B	C	D	E	F	G	H	I	J	K	
1	1	2	3									
2	4	5	6									

4. Press **RETURN**. The cursor is back on D2 and the complete range specification is displayed in the input area.

D2:	@SUM(A1..C2)											
	A	B	C	D	E	F	G	H	I	J	K	
1	1	2	3									
2	4	5	6									

5. Press **RETURN** again. *The result, 21, appears in cell D2.*

D2:	@SUM(A1..C2)										
	A	B	C	D	E	F	G	H	I	J	K
1	1	2	3								
2	4	5	6	21							

The method of specifying cell addresses by moving the cursor instead of typing the address itself can actually be used not only to specify a range in a math function, but also to specify a single address in any formula.

**Example:** To enter (A1+B1) in C1, move the cursor to C1 and type (. From this moment, the machine knows that the data is a formula and allows you to move the cursor to a cell. Instead of typing A1, move the cursor to A1 and press +. The input area now displays (A1+. You are again allowed to move the cursor to a cell. Move the cursor to B1 and press **RETURN**. The input area now displays (A1+B1). Press **RETURN** to finish and calculate the result.

## Spreadsheet Functions

Some functions can process only one or two arguments, and are very similar to the math functions. Arguments may include not only direct number inputs, but cell addresses as well.

The most sophisticated function of the spreadsheet can process multiple arguments. Arguments may be written individually, separating each with a comma, or, if all the arguments belong to a range, the range can be specified by the addresses of two opposite corners, using two periods as a separator. Arguments may be defined as a range or may consist of any combination of direct numbers and cell addresses.

### Functions using one or two arguments

---

**@ABS :** Gives the absolute value of the argument. If the argument is positive, or zero, the same value is returned; if the argument is negative, the opposite of the argument is returned.

@ABS(5) gives 5

@ABS(-5) gives 5

---

**@INT :** Gives the integer part of the argument. The decimal point and subsequent decimal digits are removed without being rounded off; an integer will remain untouched.

@INT(5) gives 5

@INT(0.9) gives 0

@INT(1.1) gives 1

---

**@MOD :** Divides the first argument by the second and gives the remainder of the division.

@MOD(10,3) gives 1

@MOD(2.3,2) gives 0.3

@MOD(0.33,2) gives 0.33

---

**@REPEAT** : Repeats the argument the number of times specified. Two data entries are required between the parentheses: the argument itself, which must be a string of characters between a pair of double quote marks or the address of a cell containing alphanumeric data, and a direct number that specifies the number of repetitions. If that number is not an integer, it is first rounded off to the closest integer.

**@REPEAT("Aa",2)** gives AaAa

**@REPEAT("2",3)** gives 222 (alphanumeric)

**@REPEAT(A1,2)** gives AaAa (if A1 contains Aa)

---

**@ROUND** : Rounds off the argument to the number of specified decimal places. Two data entries are required between the parentheses: the argument itself, and a direct number that specifies the number of decimal places. If that number is not an integer, it is first rounded off to the closest integer.

**@ROUND(1.66666,2)** gives 1.67

**@ROUND(1.66666,3)** gives 1.667

**@ROUND(1.66666,2.1)** gives 1.67

**@ROUND(1.66666,2.5)** gives 1.667

---

**@SQUARE** : Gives the square of the argument. The argument multiplied by itself is returned: the result is always a positive number.

**@SQUARE(5)** gives 25

**@SQUARE(-5)** gives 25

**@SQUARE(0)** gives 0

---

**@SQRT** : Gives the square root of the argument. The result multiplied by itself is equal to the argument. The argument may not be negative.

**@SQRT(25)** gives 5

**@SQRT(2)** gives 1.41421

**@SQRT(-25)** is invalid

---

### Functions using multiple arguments

---

**@AVG** : Gives the average value of the arguments. The sum of the arguments is calculated, then that sum is divided by the total number of arguments.

**@AVG(1,2,3,4)** gives  $(1+2+3+4)/4 = 2.5$

**@AVG(175)** gives  $175/1 = 175$

---

**@COUNT** : Gives the number of non-blank cells. This function is an exception to the general rules in that the cell referred to may contain either alphanumeric or numeric data.

**@COUNT(A1,A2,A3,A4)** gives 3 if A1 contains 5 (numeric), A2 contains your name (alphanumeric), A3 contains ERROR (this is not a blank cell), and A4 is empty.

---

**@IF** : This special function checks whether or not a specified condition is verified, and displays a value that depends on the result of that check. The form of this function must be **@IF(condition, argument1, argument2)**, and can be read in plain English as: if the condition is satisfied, then display argument 1. If the condition is not satisfied, then display argument 2. Arguments 1 and 2 can be direct numbers, strings of characters enclosed in a pair of double quote marks (example: "ABC"), or a cell address.

The condition is usually an arithmetic comparison, using two values (number or cell address) and one of the following comparison operators:

= equal to                      <= less than or equal to  
< less than                      >= greater than or equal to  
> greater than                      <> not equal to

**@IF(A1>100,100,50)** gives 100 if A1 is greater than 100,  
and 50 if A1 is equal to 100 or smaller than 100

**@IF(A1>100,100,A1)** gives 100 if A1=200 and 60 if A1=60

---

**@MAX** : Gives the greatest argument (maximum). Remember that a positive argument is always greater than a negative one.

**@MAX(1,234)** gives 234    **@MAX(1,-99999)** gives 1

---

**@MIN** : Gives the smallest argument (minimum). Remember that a negative argument is always smaller than a positive one.

**@MIN(1,234)** gives 1    **@MIN(-1,99999)** gives -1

---

**@SUM** : Gives the sum of the arguments. This function is very useful in shortening long sums when the arguments belong to a range.

**@SUM(1,2,3,4,5)** gives 15

**@SUM(A1,A2,A3,B1,B2,B3)** is equivalent to **@SUM(A1..B3)**

---

**@TSUM** : Gives the total sum of a range of cells, and also the sum of each row and column of the range if they contain data. This function is an exception to the general rules in that: 1) the argument **MUST** be a range, and 2) results are displayed not only in the selected cell (total sum), but also in the column to the right and in the row below the range. You must therefore be sure that the column to the right and the row below the range is empty. See next page for an example.

Example:

1. Enter the numbers shown below in the range A1..C2, then type @TSUM(A1..C2) in D3.

D3:	@TSUM(A1..C2)										
	A	B	C	D	E	F	G	H	I	J	K
1	1	2	3								
2	4	5	6								
3											

2. Press RETURN. The results appear as follows:

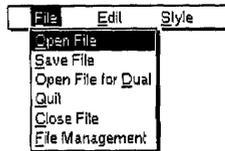
D3:	@TSUM(A1..C2)										
	A	B	C	D	E	F	G	H	I	J	K
1	1	2	3	6							
2	4	5	6	15							
3	5	7	9	21							

# Using the Menu Functions

---

The following functions can be found under the menu bar at the top of the screen. This bar can be reached by pressing **MENU**.

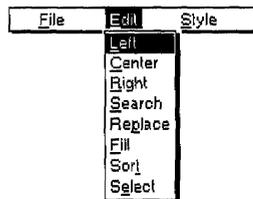
## File



Use the File functions from the function menu to open, save, or close your files, and to return to the MAIN MENU.

These functions work exactly the same way as with the Word Processing application. Please refer to "File" on page 38 for details.

## Edit



Use the Edit functions from the function menu to make the same changes in the appearance or contents of many cells, to rearrange the worksheet, or to extract part of the information.

**Left:** Aligns alphanumeric data to the left in the desired range of cells.

**Center:** Centers alphanumeric data in the desired range of cells.

**Right:** Aligns alphanumeric data to the right in the desired range of cells.

**Search:** Searches for occurrences of a specified string of characters.

**Replace:** Searches for occurrences of a specified string of characters and allows for automatic replacement with another string.

**Fill:** Fills a selected range with a specified arithmetic progression.

**Sort:** Sorts a specified group of rows.

**Select:** Selects rows according to specified conditions; the selection can be written in the worksheet and printed.

**Left, Center, and Right** affect only cells containing alphanumeric data over the selected range; numeric cells and empty cells will not change.

**Left, Center, and Right** change the corresponding format marks ('', '^', '') in the input area of the affected cells. When the alphanumeric result of a cell is produced by a function like @REPEAT, or @IF, the format mark is not added, but the characters in the cell can be highlighted.

*While using these functions, you can press **CANCEL** at any time to cancel the function.*

## Left

This function aligns all alphanumeric data of a range to the left of the cells.

- 1 Move the cursor to a corner of the range of cells that you want to format and press **MENU** and select **Edit**; then select Left from the function menu. *This message appears:*

Move cursor to end of block and press RETURN.

2. Move the cursor to the opposite corner of the range of cells that you want to format and press **RETURN**. *The alphanumeric cells of the range are reformatted.*

## Center

This function centers all alphanumeric data in a range.

Move the cursor to a corner of the range of cells that you want to format and press **MENU** and select **Edit**; then select Center from the function menu. Proceed as with the Left function to select the desired range of cells.

## Right

This function aligns all alphanumeric data of a range to the right of the cells.

Move the cursor to a corner of the range of cells that you want to format and press **MENU** and select **Edit**; then select Right from the function menu. Proceed as with the Left function to select the desired range of cells.

## Search and Replace

These functions are described in Search on page 46 and Replace on page 47. Please refer to those sections for the basic operations.

- The Search function can find both numeric and alphanumeric data, but only if the data appears in the input area. For example, you will be able to find aaa in a cell only if it has been entered directly into the input area. If the same data is entered as @REPEAT("a",3), you will not be able to find it.
- When replacing a string with another, this window will appear if the replacement has to take place in a protected cell:

Protected cell error!  
Press any key to continue.

- If the replacement string is longer than 240 characters, this window will appear:

Word(s) too long!  
OK to truncate data?  
Use cursor to select and press RETURN.  
[YES] [NO]

You can select **YES**, to omit the data in the replacement string to the right of the possible 240 characters and carry out replacement, or **NO** to cancel the function.

## Fill

This function is useful when you want to quickly number rows or columns, or when you need numbers in a range in order to check how math functions are working.

Columns are filled from top to bottom. Rows are filled from left to right. In the case of a range, the first column is filled first, then the second, etc.

1. Move the cursor to a corner of the range of cells that you want to fill and press **MENU** and select **Edit**; then select **Fill** from the function menu. *The machine asks you to specify the range. Proceed as with the Left function. After the range is specified, the FILL window appears:*

	<< FILL >>
STARTING VALUE:	<input type="text"/>
JUMPING VALUE:	<input type="text"/>
ENDING VALUE:	<input type="text"/>
Type number and press RETURN.	

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use the numeric keys to enter the specifications. Press **RETURN** when finished.
  - **STARTING VALUE:** The first number of the arithmetic progression.
  - **JUMPING VALUE:** The difference between two successive values.
  - **ENDING VALUE:** The value that the arithmetic progression cannot exceed. The cells are filled up to the **ENDING VALUE** (or the closest value less than it) or up to the last cell of the range, whichever comes first.

**Example:** If the **STARTING VALUE** is 5, the **JUMPING VALUE** is 4, and the **ENDING VALUE** is 20 you will get the numbers: 5, 9, 13, and 17. (Because 21 is higher than the **ENDING VALUE**, it is not included.)

## Sort

This function is used to rearrange your worksheet. When you update a worksheet, you usually add data at the end of the file. To facilitate later reference, however, you need some logical organization. Alphabetical order is commonly used. The sorting feature explained here will save you time and effort in the organization of your data.

1. Move the cursor to a corner of the range of cells that you want to sort and press **MENU** and select **Edit**; then select **Sort** from the function menu. *The machine asks you to specify the range. Proceed as with the Left function, but be careful to select all the information of the rows. For example, if you have data in columns A to E and you select only columns A to D in your range, the cells in column E will not be moved along with the cells in columns A to D and it will be impossible to reverse this situation automatically.*

*After the range is specified, an arrow cursor appears above the worksheet. A message will ask you to move the arrow cursor to select the column of the range according to the data to be sorted.*

Move cursor to primary sort column and press RETURN.

This sorting function can perform a double sort, primary and secondary. A typical example of double sorting is when you have data related to people. You can use the family name for primary sort, and the first name for secondary sort.

2. Move the cursor to the primary sort column and press **RETURN**. *This message appears:*

Move cursor to secondary sort column and press RETURN.

3. Move the cursor to the secondary sort column and press **RETURN**. If you do not need a secondary sort, leave the cursor on the primary sort column. *The Direction window appears:*

Direction?
Use cursor to select and press RETURN.
[ASCENDING] [DESCENDING] [CANCEL]

When a column that is selected for primary or secondary sort contains different types of cells, the sort order is:

Empty cell < Numeric < Alphanumeric < ERROR cell.

4. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ASCENDING**, **DESCENDING**, or **CANCEL** and press **RETURN** to sort.
  - **ASCENDING**: Normal alphabetic order for alphanumeric data, increasing values for numeric data (A–Z and 1–100).
  - **DESCENDING**: Reverse alphabetic order for alphanumeric data, decreasing values for numeric data (Z–A and 100–1).
  - **CANCEL**: Cancels the function and returns to the previous display.

## Select

This function is used to select rows of data that match a specified condition. The data can be displayed, written in the current worksheet, and printed.

1. Move the cursor to a corner of the range of cells that you want to select and press **MENU** and select **Edit**; then choose **Select** from the function menu. *If you have not recalculated the spreadsheet since changing any of the cells contents, then the following message will appear.*

The sheet needs recalculation. Recalculate?
Use cursor to select and press RETURN.
[YES] [NO]

Select **YES** and press **RETURN**.

OR

*If the spreadsheet has not been changed since the last recalculation. The system asks you to specify the range. Proceed as with the **Left** function. After the range is specified, an arrow cursor appears above the worksheet. A message will ask you to move the arrow cursor to select a column for the range.*

Move cursor to select column and press RETURN.

2. Move the cursor to the column on which the select condition is to be applied and press **RETURN**. The **SELECT** window appears:

```

  << SELECT >>
  CONDITION:  EQUAL (WORD)
  EQUAL TO:   _____
  Press SPACE to change setting and press RETURN.
  
```

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to select the kind of **CONDITION**. Type the condition on the lower line of the window. Press **RETURN** when finished.
- The different kinds of conditions are: **EQUAL**, **NOT EQUAL**, **LESS**, **GREATER**, **BETWEEN**, **NOT BETWEEN**.
  - These conditions all apply to numeric data, except **EQUAL** and **NOT EQUAL** which can be set for alphanumeric data (**WORD**).
  - With **EQUAL(WORD)** and **NOT EQUAL(WORD)**, the machine checks for an exact matching of the first characters of the cells. If you entered **EQUAL TO:BA**, **BANANA** and **BAY** will be selected because these words start with **BA**; **banana**, **B**, **B.A.**, and **1BANANA** will not be selected.
  - The selected data appears in the **SELECTED DATA** window.

**Example:** Suppose you have a list of salespersons with each row containing the last name, first name, and sales results.

A2: 'LAST NAME			
	A	B	C
1			
2	LAST NAME	FIRST NAME	SALES RESULTS
3	Marsh	Henry	\$12,345
4	Anderson	John	\$10,539
5	Bennet	William	\$34,129
6	Higgins	Ruth	\$22,410
7	Carter	David	\$18,300
8	Higgins	Joyce	\$15,885
9	Fox	Terry	\$20,782
10			

If you try this example, remember to make sure that the numbers in column C are not alphanumeric characters. Alphanumeric characters are always preceded with a ' mark. For more information, see *Format Marks*.

If you want to extract a list of the salespersons whose sales result is lower than \$20,000, you must specify column C as the select column in step 2 above, then select **LESS** in the **SELECT** window, and enter **20000** at the back of **Less**.

```

  << SELECT >>
  CONDITION:  LESS
  LESS THAN:  20000
  Type number and press RETURN.
  
```

The **SELECTED DATA** window looks like this:

<< SELECTED DATA: 4 >>		
LESS THAN: 20000		
Marsh	Henry	\$12,345
Anderson	John	\$10,539
Carter	David	\$18,300

Use cursor to select and press RETURN.  
(WRITE IN SHEET) (PRINT) (CANCEL)

From the **SELECTED DATA** window you can write the selected data in the current worksheet, print the data, or abandon the selected data and return to the original worksheet.

- To write the selected data in your worksheet, select **WRITE IN SHEET** and press **RETURN**. This message appears:

Move cursor to position to write **SELECTED DATA**.

Move the cursor to a destination for the selected data and press **RETURN**. The upper-left corner of the selected data will coincide with the selected position. The data that is written will overwrite existing data in the same way as when you copy a block. If the data to be written exceeds the boundary of the worksheet, this window appears:

Write canceled.  
Range exceeds boundary of spreadsheet!  
Press any key to continue.

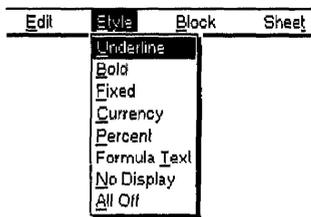
- To print the selected data, select **PRINT** and press **RETURN**. This message appears:

Insert paper and press RETURN.

Insert paper and press **RETURN**.

- After looking at the selected data, press **CANCEL** to return to the previous screen.

## Style Functions



While using the above functions, press **CANCEL** at any time to go to the previous screen.

Use the **Style** functions from the function menu to modify the appearance of a range of cells.

**Underline:** Switches underlining on/off.

**Bold:** Switches bold face attribute on/off.

**Fixed:** Controls the number of decimal places.

**Currency:** Automatically adds a \$ symbol to numeric results in a range.

**Percent:** Automatically adds a % symbol to numeric results in a range.

**Formula Text:** Allows you to display the formulas, rather than their results. This is useful, for example, when you want to show someone how you have set up a particular worksheet.

**No Display:** Switches the display of selected cells on/off. This is useful when some cells of the worksheet are used for intermediate calculations. You can hide these cells and show only what is necessary.

**All Off:** Cancels all settings made with the above functions and restores the default settings.

### Style notes

- **Bold** and **Underline** can both be applied to the same cell, and together with one of the other settings as well.
- The other settings, from **Fixed** to **All Off** exclude each other. For example, a cell cannot be set to **Percent** and **Currency** at the same time. If you apply **Percent** to a cell that was set to **Currency**, the \$ symbol disappears and a % symbol appears. However, it is possible to set **Formula Text** or **No Display** in addition to either **Fixed**, **Currency** or **Percent**. For example, when **No Display** is set along with **Percent** and if the **No Display** setting is cancelled, the % symbol will appear again.
- **Underline** draws a line across the entire cell regardless of its contents. This function is used to separate rows of the worksheet.
- All **Style** functions apply to empty cells. If you set an empty cell to **Bold** and **Percent**, a numeric value entered later in that cell will be bold and will have a percent symbol.

## Underline

This function is used to draw horizontal lines separating rows. When a cell is set to **Underline ON**, the underlining will extend from the left to the right end of the cell, regardless of its contents.

1. Move the **cursor** to a corner of the range of cells that you want to format and press **MENU** and select **Style**; then select **Underline** from the function menu. (Short cut: **CODE + N**). *This message appears:*

Move cursor to end of block to be formatted and press RETURN.

2. Move the cursor to the opposite corner of the range of cells that you want to format and press **RETURN**. The Underline window appears:

Underline?		
Use cursor to select and press RETURN.		
[ON]	[OFF]	[CANCEL]

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ON**, **OFF**, or **CANCEL** and press **RETURN**.
  - **ON**: Underlines all the cell in the range.
  - **OFF**: Removes underline from cells in the range.
  - **CANCEL**: Returns to the previous display.

## Bold

This function changes the type style of the cell contents (text) to **bold**.

1. Move the cursor to a corner of the range of cells that you want to format and press **MENU** and select **Style**; then select **Bold** from the function menu. (Short cut: **CODE + B**)
2. Proceed as you would with the Underline function to select the range of cells. *After the range is selected, the Bold window appears:*

Bold?		
Use cursor to select and press RETURN.		
[ON]	[OFF]	[CANCEL]

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ON**, **OFF**, or **CANCEL** and press **RETURN**.
  - **ON**: Set all the cell contents in the range to bold.
  - **OFF**: Removes bold for any character from cells in the range.
  - **CANCEL**: Returns to the previous display.

## Fixed

This function is used to control the number of decimal places that will be displayed and allows you to use commas to separate the thousands. The default is an Auto mode which displays up to 5 decimal digits. The setting does not affect the number of decimal places that are actually stored in the memory.

1. Move the cursor to a corner of the range of cells that you want to format and press **MENU** and select **Style**; then select Fixed from the function menu.
2. Proceed as you would with the Underline function to select the range of cells. *After the range is selected, the **FIXED** window appears:*

<< FIXED >>	
FIXED DISPLAY:	<b>YES</b>
SEPARATOR:	NO
DECIMAL PLACES [0 ~ 5]:	0
Press SPACE to change setting and press RETURN.	

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to alternate between YES and NO. Use the numeric keys to set the number of decimal places.
  - **FIXED DISPLAY: YES** Cancels the settings of **Currency** and **Percent**, and enables the setting of the **FIXED** window.
  - **FIXED DISPLAY: NO** Cancels the Fixed setting in the designated range and returns the default Auto mode.
  - **SEPARATOR: YES** Displays the numeric values with commas separating the thousands (for example, 1,234,567).
  - **SEPARATOR: NO** Displays the numeric values without commas.
  - **DECIMAL PLACES: 0-5** Displays the numeric value with the specified number of decimal places. If a numeric value has more decimal digits, it is rounded. If it has less, zeroes are added to the right.
4. Press **RETURN** when finished.

## Currency

This function automatically adds a dollar symbol \$ to the left of numeric data. Like the Fixed function, it controls the number of decimal digits and separates the thousands by commas automatically. The function can also hide zero values.

1. Move the cursor to a corner of the range of cells that you want to add a dollar symbol and press **MENU** and select **Style**; then select Currency from the function menu.
2. Proceed as you would with the Underline function, to select the range of cells. *After the range is selected, the **CURRENCY** window appears:*

<< CURRENCY >>	
CURRENCY DISPLAY:	<b>YES</b>
ZERO DISPLAY:	YES
SEPARATOR:	NO
DECIMAL PLACES [0 ~ 5]:	2
Press SPACE to change setting and press RETURN.	

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to alternate between YES and NO. Use the numeric keys to set the number of decimal places.
  - **CURRENCY DISPLAY / YES:** Cancels the settings of **Fixed** and **Percent**, and enables the setting of the **CURRENCY** window. A dollar sign will be displayed to the left of the numeric values
  - **CURRENCY DISPLAY / NO:** Disables the settings of the **CURRENCY** window and removes the dollar symbol.
  - **ZERO DISPLAY / YES:** Displays numeric values that are equal to zero. If the number of decimal places is set to two, for example, the display of 0 will be **\$0.00**.
  - **ZERO DISPLAY / NO:** Changes the display so that numeric values that are equal to zero (the cells appear empty).
  - **SEPARATOR** and **DECIMAL PLACES** settings work as with the **FIXED** window.

## Percent

This function automatically shows numbers as percentages. To do this, the machine multiplies the values by 100 and adds a percent symbol % to the right of the number. The Percent function also provides decimal control.

1. Move the cursor to a corner of the range of cells that you want to show numbers as percentages and press **MENU** and select **Style**; then select **Percent** from the function menu.
2. Proceed as you do with the **Underline** function to select the range of cells. *After the range is selected, the **PERCENT** window appears:*

<< PERCENT >>	
PERCENT DISPLAY:	<b>YES</b>
DECIMAL PLACES (0 ~ 5):	0
Press SPACE to change setting and press RETURN.	

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to alternate between YES and NO. Use the numeric keys to set the number of decimal places.
  - **PERCENT DISPLAY: YES** Cancels the settings of **Fixed** and **Currency**, and enables the setting of the **PERCENT** window. Numeric values are first multiplied by 100, then a percent symbol is displayed to the right of the value.
  - **PERCENT DISPLAY: NO** Disables the settings of the **PERCENT** window, and removes the percent symbol.
  - **DECIMAL PLACES** setting works as with the **FIXED** and **CURRENCY** windows.

## Formula Text

This function makes it possible to display formulas (rather than their result) in cells. Use this feature to print all the formulas you have created.

1. Move the cursor to a corner of the range of cells that you want to display formulas in cells and press **MENU** and select **Style**; then select **Formula Text** from the function menu.
2. Proceed as you would with the **Underline** function to select the range of cells. *After the range is selected, the **Formula Text** window appears:*

Formula Text?		
Use cursor to select and press RETURN.		
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="button" value="[CANCEL]"/>

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ON**, **OFF**, or **CANCEL** and press **RETURN**.
  - **ON**: Displays formulas instead of their results.
  - **OFF**: Displays the result in any cell that was displaying a formula.
  - **CANCEL**: Returns to the previous display.

## No Display

This function is used to hide the contents of cells. Use this function to hide cells used only for intermediate results that do not need to appear in your worksheet.

1. Move the cursor to a corner of the range of cells that you want to hide the contents of cells and press **MENU** and select **Style**; then select **No Display** from the function menu.
2. Proceed as you would with the **Underline** function to select the range of cells. *After the range is selected, the **No Display** window appears:*

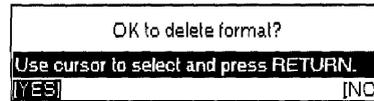
No Display?		
Use cursor to select and press RETURN.		
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="button" value="[CANCEL]"/>

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ON**, **OFF**, or **CANCEL** and press **RETURN**.
  - **ON**: Changes the display so that the contents of all the cells in the range appear empty.
  - **OFF**: Displays the contents of all the cells.
  - **CANCEL**: Returns to the previous display.

## All Off

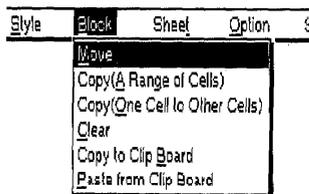
This function is used to reset all the attributes of the selected cells to their default settings (underline off, bold off, fixed auto decimal, currency and percent off, no commas, formula text off, no display off).

1. Move the cursor to a corner of the range of cells that you want to reset and press MENU and select **Style**; then select All Off from the function menu.
2. Proceed as you would with the Underline function to select the range of cells. *After the range is selected, the All Off window appears.*



- **YES:** Deletes all the **Style** settings and restores the default settings in the selected range.
- **NO:** Cancels the function and returns to the previous display.

## Block Functions



You can press **CANCEL** at any time to cancel the function.

The **Block** operations will move the **Style** settings of the individual cells with the cells.

Use the Block functions from the function menu to modify the location of an entire range of cells:

**Move:** Moves a range of cells to another location. The original location is left empty.

**Copy (A Range of Cells):** Copies a range of cells to another location. The original location is left unchanged.

**Copy (One Cell to Other Cells):** Copies one cell to all the cells in a range.

**Clear:** Empties all cells in a range.

**Copy to Clip Board:** Copies a range of cells to the Clip Board.

**Paste from Clip Board:** Pastes the contents of the Clip Board into the worksheet.

## Absolute and relative addresses

Whenever the layout of your spreadsheet is altered, and the data within a cell has been copied, the cell reference in the formulas are updated accordingly. A cell with a relative address will be updated to reflect most layout changes. A cell with an absolute address is generally not updated when you change the layout. However, there may be times that you do not wish the cell address in the formula updated.

Cell addresses are considered relative, unless a \$ (dollar sign) is placed at the beginning of the cell address in the formula: **A1** is a relative address; **\$A1** is an absolute address.

## Move

This function is used to move a range of cells to another location. The original cells are cleared.

1. Move the cursor to a corner of the range of cells that you want to move and press **MENU** and select **Block**; then select Move from the function menu. (Short cut: **CODE + E**). *This message appears:*

Move cursor to end of block to be moved and press RETURN.

2. Move the cursor to the opposite corner of the range of cells that you want to move and press **RETURN**. *This message appears:*

Move cursor to destination for blocked data and press RETURN.

3. Move the cursor to the upper left corner of the destination range and press **RETURN**.

- If the new destination is such that the relocated data will exceed the limits of the worksheet, this message appears:

Move canceled.  
Range exceeds boundary of spreadsheet!  
Press any key to continue.

- If the destination has protected cells (cells that you cannot erase or overwrite without first removing the protection) data transfer will be canceled and this message appears:

Protected cell error!  
Press any key to continue.

## Copy (a range of cells)

This function works like the move function except that the original range of cells is not cleared.

1. Move the cursor to a corner of the range of cells that you want to copy and press **MENU** and select **Block**; then select Copy (**A Range of Cells**) from the function menu. (Short cut: **CODE + C**). *This message appears:*

Move cursor to end of block to be copied and press RETURN.

2. Move the cursor to the opposite corner of the range of cells that you want to copy and press **RETURN**. *This message appears:*

Move cursor to destination for blocked data and press RETURN.

3. Move the cursor to the upper left corner of the destination range and press **RETURN**.

- If the new destination is such that the relocated data will exceed the limits of the worksheet, this message appears:

Copy canceled.  
Range exceeds boundary of spreadsheet!  
Press any key to continue.

- If the amount of data that you try to copy is such that your file becomes too large, this message appears:

Copy incomplete. Memory full!  
Press any key to continue.

*If any key is pressed, the data which could be copied will be displayed.*

- If the destination has protected cells (cells that you cannot erase or overwrite without first removing the protection) copy will be performed only on unprotected cells and this message appears:

Protected cell error!  
Press any key to continue.

## Copy (one cell to other cells)

This function is used to copy one cell to all the cells of a specified range.

1. Move the cursor to the cell that you want to copy and press **MENU** and select **Block**; then select Copy (One Cell to Other Cells) from the function menu. Make sure that the cursor position before pressing **MENU** is the cell to be copied. *This message appears:*

Move cursor to start of block to be copied and press RETURN.

2. Move the cursor to the one corner of the destination range and press **RETURN**. *This message appears:*

Move cursor to end of block to be copied and press RETURN.

3. Move the cursor to the opposite corner of the destination range and press **RETURN**.

- If the amount of data that you try to copy is such that your file becomes too large, this message will appear:

Copy incomplete. Memory full!  
Press any key to continue.

*If any key is pressed, the data which could be copied is displayed.*

- If the destination has protected cells (cells that you cannot erase or overwrite without first removing the protection) the copy procedure will be performed only on unprotected cells and this message appears:

Protected cell error!  
Press any key to continue.

## Clear

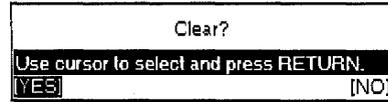
Clear resets all Style settings in the range to their default settings.

This function is used to clear all the cells in a range.

1. Move the cursor to a corner of the range of cells that you want to clear and press **MENU** and select **Block**; then select Clear from the function menu. (Short cut: **CODE + D**). *This message appears:*

Move cursor to end of block to be cleared and press RETURN.

2. Move the cursor to the opposite corner of the range of cells that you want to clear and press **RETURN**. *This window appears:*

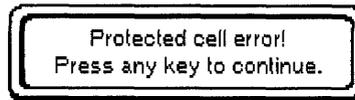


3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select YES or NO and press **RETURN**.

**YES:** Clears the range.

**NO:** Cancels the function and returns to the previous display.

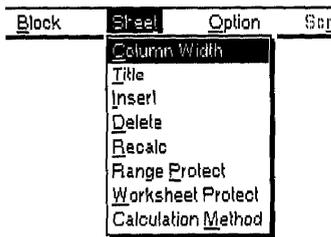
- *If the selected range has protected cells (cells that you cannot erase or overwrite without first removing the protection) only non-protected cells are cleared and this message appears:*



## Copy to Clip Board / paste from the Clip Board

These operations are described in the chapter "Clip Board" on page 217.

## Sheet Functions



When columns or rows are inserted or deleted from the worksheet, cells are renumbered.

You can press **CANCEL** at any time to cancel these functions.

Use the **Sheet** functions to adjust the width of columns, freeze, insert or remove rows and columns, recalculate the results of formulas and protect important parts of the worksheet.

**Column Width:** Changes the width of columns.

**Title:** Freezes column(s) or row(s) on the screen so that the labels they contain are always visible when you scroll the worksheet. The same function is used to release frozen columns or rows.

**Insert:** Inserts blank rows or columns in the middle of the worksheet.

**Delete:** Removes columns or rows from the worksheet.

**Recalc:** Updates the results of all formulas.

**Range Protect:** Protects a range of cells against accidental deleting or overwriting. The same function is used to remove the protection.

**Worksheet Protect:** Enables or disables the protection of a range of cells from accidental deleting or overwriting.

**Calculation Method:** Changes the method of calculation.

## Column Width

This function is used to change the width of columns. It applies to the whole selected column, from the top to the bottom of the worksheet.

1. Move the cursor to the left most or right most column you want to change the width of and press **MENU** and select **Sheet**; then select **Column Width** from the function menu. *The COLUMN WIDTH window appears:*

A screenshot of a window titled '<< COLUMN WIDTH >>'. Inside the window, there are two labels: 'HOW?:' and 'WHERE?:'. Next to 'HOW?:' is a box containing the word 'MANUAL'. Next to 'WHERE?:' is a box containing the word 'CHOICE'. At the bottom of the window, there is a line of text: 'Press SPACE to change setting and press RETURN.'

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to change the settings.
  - **HOW? : MANUAL** Allows for manual setting of the width (you will have to enter a value for the width).
  - **HOW? : AUTO** Allows for automatic setting of the width (the width will be set automatically so that the longest entry of the selected column(s) can fit).
  - **HOW? : DEFAULT** Resets the width to 10 (default value).
  - **WHERE? : CHOICE** Applies the change to specified column(s) only.
  - **WHERE? : GLOBAL** Applies the change to the whole worksheet.
3. Press **RETURN** when finished.

		HOW		
		MANUAL	AUTO	DEFAULT
WHERE	CHOICE	Select column(s). See step (3). Enter a value for the width. See step (4).	Select a range. See step (3).	Select column(s). See step (3).
	GLOBAL	Enter a value for the width. See step (4).	Operation is carried out immediately.	Operation is carried out immediately.

4. If you applied **MANUAL** or **DEFAULT** with **CHOICE**, the entire column is highlighted and this message appears:

Mark columns for width change and press RETURN.

Move the cursor horizontally to mark more columns, if necessary, and press **RETURN**.

If you applied **AUTO** with **CHOICE**, this message appears:

Press ←, → to mark columns for width change, ↑, ↓ to mark rows for data scan.

Use **CURSOR LEFT** and **CURSOR RIGHT** to choose the columns and use **CURSOR UP** and **CURSOR DOWN** to choose the length of the data scan range.

5. If you have to enter a value for the width, the **COLUMN WIDTH SET** window appears:

```

<< COLUMN WIDTH SET >>
CHANGE COLUMN:      XX-XX
COLUMN WIDTH:      XX
Type number and press RETURN.

```

Type a number for the new column width, and press **RETURN**.

- If you apply an **AUTO** width change to an empty column, the width of that column will not change.
- The maximum width of a column is 95 characters. The minimum width is one character. If you try to specify values outside this range, you will hear a beep.

## Title

This function freezes the first rows/columns of a large worksheet so that the titles they contain are always visible when you scroll the sheet.

1. Press **MENU** and select **Sheet**; then select **Title** from the function menu. *The TITLE window appears:*

<< TITLE >>	
TITLE FREEZE OR RELEASE:	<b>FREEZE</b>
DIRECTION:	COLUMNS
Press SPACE to change setting and press RETURN.	

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to change the settings.
  - **TITLE FREEZE OR RELEASE : FREEZE** Freezes column(s) or row(s).
  - **TITLE FREEZE OR RELEASE : RELEASE** Releases frozen columns or rows.
  - **DIRECTION : COLUMNS** Applies the change to column(s) only.
  - **DIRECTION : ROWS** Applies the change to row(s) only.
  - **DIRECTION : BOTH** Applies the change to both column(s) and row(s).
3. Press **RETURN** when finished.

*If you selected TITLE FREEZE OR RELEASE : RELEASE, the frozen column(s), row(s) or both are released and this message appears:*

Frozen columns/rows have been released.

*If you selected TITLE FREEZE OR RELEASE : FREEZE, this message appears:*

Move cursor to right of the columns/one row below the rows to be frozen and press RETURN.

4. To freeze columns, move the cursor to the right of the last column to be frozen (if you want to freeze columns **A** and **B**, move cursor to column **C**).

To freeze rows, move the cursor one row below the last row to be frozen (if you want to freeze rows **1** and **2**, move cursor to row **3**).

To freeze both columns and rows, combine the procedures for columns and rows (if you want to freeze column **A** and row **1**, move the cursor to cell **B2**).

5. Press **RETURN** when selection is complete.
  - You cannot freeze rows when displaying two files at a time (Dual screen mode). *If you switch to the dual screen mode while rows are frozen, they will be automatically released and this message will appear when you switch between files with the Change Screen command:*

Frozen rows have been released.

## Insert

This function inserts blank rows or columns in the middle of the worksheet.

1. Move the cursor to the cell that you want to insert.  
(ex1. To insert a row between rows 1 and 2, you should move the cursor to row 2.)  
(ex2. To insert a column between columns A and B, you should move the cursor to column B.)
2. Press **MENU** and select **Sheet**; then select **Insert** from the function menu.  
(Short cut: **CODE + I (INSERT)**). *The INSERT window appears:*

<< INSERT >>	
INSERT COLUMNS OR ROWS:	<b>COLUMNS</b>
NUMBER OF COLUMNS/ROWS TO INSERT:	1
Press SPACE to change setting and press RETURN.	

3. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to alternate between **COLUMNS** and **ROWS**, and type a number.
  - **INSERT COLUMNS or ROWS : COLUMNS** Inserts column(s).
  - **INSERT COLUMNS or ROWS : ROWS** Inserts row(s).
  - **NUMBER OF COLUMNS/ROWS TO INSERT:** Enables specification of the number of columns or rows to be inserted (1 - 99).
  - *When you insert a row between rows 1 and 2, a new, empty row 2 will be inserted, and subsequent rows will be renumbered. (old row 2 becoming new row 3, etc.)*
  - *When you insert a column between columns A and B, a new, empty column B will be inserted, and subsequent columns will be renumbered. (old column B becoming new column C, etc.)*
  - *Relative addresses in a formula are automatically adjusted.*

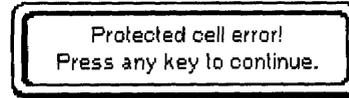
**Example:** C1 contains (A1+B1) and you insert a column between A and B. C1 becomes D1 and now contains (A1+C1).

  - *If the amount of columns or rows to be inserted is such that subsequent columns or rows that already contain data will be pushed outside the limits of the worksheet, this window appears:*

Insert will result in data loss! Is it OK?	
Use cursor to select and press RETURN.	
[YES]	[NO]

If you select **NO**, insertion is canceled.

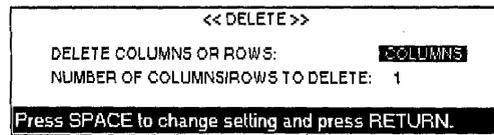
If you select **YES**, insertion will be performed with data lost, except if one or more cells among the data to be lost is protected, in which case this window appears and insertion is canceled:



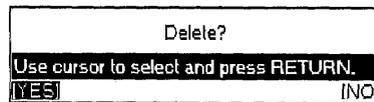
## Delete

This function removes columns or rows from the worksheet.

1. Move the cursor to the first column or row that you want to delete. And press **MENU** and select **Sheet**; then select Delete from the function menu. The **DELETE** window appears:



2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to alternate between **COLUMNS** and **ROWS**, and type a number.
  - **DELETE COLUMNS OR ROWS : COLUMNS** Deletes column(s).
  - **DELETE COLUMNS OR ROWS : ROWS** Deletes row(s).
  - **NUMBER OF COLUMNS/ROWS TO DELETE:** Enables specification of the number of columns or rows to be deleted (1 - 99).
3. Press **RETURN**. This message appears:

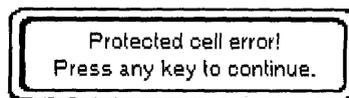


Select **YES** to delete, or **NO** to cancel, then press **RETURN**.

- *Relative addresses in a formula are automatically adjusted.*

**Example:** D1 contains (B1+C1) and you delete column A. D1 becomes C1 and now contains (A1+B1).

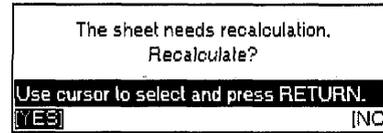
- *After deletion, subsequent columns or rows are renumbered.*
- *If one or more cells among the data to be deleted are protected, this window appears, and deletion is canceled:*



## Recalc

The machine constantly checks for the need of recalculating the entire worksheet. If one of the following conditions is met, and recalculation is necessary, the Recalculation window shown below appears:

- Immediately before printing.
- Immediately before sorting or selecting.



To recalculate, select **YES**, and press **RETURN**. The message “Working ...” is displayed while recalculation is carried out.

If you do not want to recalculate, select **NO**, and press **RETURN**.

- Recalculation is carried out first from top to bottom, and then from left to right.
- The machine performs recalculation of the worksheet twice. If you are using formulas referring to cells that are themselves referring to other cells, it might sometimes happen that the system cannot give the correct results immediately. You might need to use the recalculation function again if your spreadsheet is using very complex formulas.

**To recalculate manually:** Press **MENU** and select **Sheet**; then select **Recalc** from the function menu. (Short cut: **CODE** + **[RETURN]**)

The message “Working ...” will be displayed while recalculation is carried out. When a file that has not been recalculated, but has been saved, is opened, the following message will appear to prompt you to recalculate manually:

The sheet needs recalculation. Recalculate.

## Range Protect

This function is used to protect a range of cells against accidental deleting or overwriting. The same function is used to remove the protection. There are three things to remember when using Range Protect.

- When a cell is protected, you cannot delete or overwrite its contents. You also cannot delete the row or columns it is in.
- You can use the Range Protect function to avoid accidental deletion or modification of cells that contain complicated formulas.
- The cell can be updated by recalculation but the formula itself cannot be modified.
  1. Move the cursor to one corner of the range you want to protect and press **MENU** and select **Sheet**; then select **Range Protect** from the function menu.

*This message appears:*

Move cursor to end of block to be protected on/off and press RETURN.

2. Move the cursor to the opposite corner of the range you want to protect and press **RETURN**. *The Protect window appears:*

Protect?		
Use cursor to select and press RETURN.		
[ON]	[OFF]	[CANCEL]

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ON**, **OFF**, or **CANCEL** and press **RETURN**.
  - **ON**: Protects all the cells of the range.
  - **OFF**: Changes all the cells in the range to unprotected.
  - **CANCEL**: Returns to the screen before **MENU** was pressed.

## Worksheet Protect

This function is used to enable or disable the protection of a range of cells from accidental deleting or overwriting. When a worksheet is protected, you cannot delete or overwrite its contents.

1. Press **MENU** and select **Sheet**; then select **Worksheet Protect** from the function menu. *The Worksheet Protect window appears:*

Worksheet Protect?		
Use cursor to select and press RETURN.		
[ENABLE]	[DISABLE]	[CANCEL]

2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **ENABLE**, **DISABLE**, or **CANCEL** and press **RETURN**.
  - **ENABLE**: Enables the Range Protect function.
  - **DISABLE**: Disables the Range Protect function.
  - **CANCEL**: Returns to the previous position before the menu was chosen.

## Calculation Method

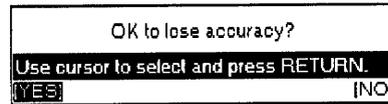
This function allows you to change the calculation method. When you are using the Spreadsheet for financial purpose, this function is useful to you.

1. Press **MENU** and select **Sheet**; then select **Calculation Method** from the function menu. This window appears.

Calculation Precision?		
Use cursor to select and press RETURN.		
[USE FULL PRECISION]	[USE PRECISION AS DISPLAYED]	[CANCEL]

2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **USE FULL PRECISION**, **USE PRECISION AS DISPLAYED**, or **CANCEL**, and press **RETURN**.
  - If you select **USE FULL PRECISION**, calculation is carried out precisely.

- If you select **USE PRECISION AS DISPLAYED**, this window appears.



**YES:** Calculation is carried out as displayed.

**NO:** Cancel the function.

- If you select **CANCEL**, you return to the previous position before the menu was chosen.

### Example 1: USE FULL PRECISION

1. Enter  $1/4(0.25)$  in cell A1. (Decimal places : 1)

A1:	0.25								
	A	B	C	D	E	F	G	H	
1	0.3								
2									

2. Enter 2 in cell B1.

B1:	2								
	A	B	C	D	E	F	G	H	
1	0.3	2							
2									

3. Enter  $+A1*B1$  in cell C1. The precise value stored in the cell is used for the calculation.

C1:	$+A1*B1$								
	A	B	C	D	E	F	G	H	
1	0.3	2	0.5						
2									

### Example 2: USE PRECISION AS DISPLAYED

1. Enter  $1/4(0.25)$  in cell A1. (Decimal places : 1)

A1:	0.25								
	A	B	C	D	E	F	G	H	
1	0.3								
2									

2. Enter 2 in cell B1.

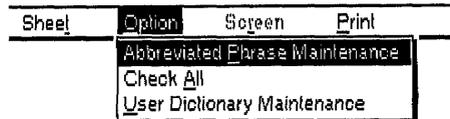
B1:	2								
	A	B	C	D	E	F	G	H	
1	0.3	2							
2									

3. Enter **+A1\*B1** in cell **C1**. The displayed value is used for the calculation.  
This function is useful for financial purposes.

<b>C1:</b>	<b>+A1*B1</b>									
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>		
<b>1</b>	0.3		2	0.6						
<b>2</b>										

## Options

Use the **Option** functions from the function menu to spell check your text and maintain a User Dictionary or Abbreviated Phrase File.



**Abbreviated Phrase Maintenance:** Edits the Abbreviated Phrase memory.

**Check All:** Spell checks the alphanumeric entries.

**User Dictionary Maintenance:** Edits the User Dictionary.

## Abbreviated Phrase Maintenance

You can use the abbreviation function to type long strings faster. The Abbreviated Phrase memory can be edited from the Spreadsheet application exactly the same as with the Word Processing application. Please refer to "Abbreviated Phrase Memory" on page 71 for details.

## Check All

This function starts Spell Check. The operations are the same as with the Word Processing application. Please refer to "Check All (Spell Check)" on page 74 for details.

- When an error is found, the cell is highlighted and its contents are displayed in the input area with the misspelled word highlighted.
- Frozen cells are *not* checked.
- You cannot correct a protected cell.
- You cannot enter more than 240 characters when retyping.

## User Dictionary Maintenance

Operations are exactly the same as with the Word Processing application. Please refer to "User Dictionary Maintenance" on page 76 for details.

## Screen Functions

Use the **Screen** functions from the function menu to control the display. This function is only available when working in dual mode.

**Change Screen:** Changes the active file while working in dual mode.

**Split Size:** Adjusts the screen size while working in dual mode.

### Change Screen

Option	Screen	Print
	Change Screen	
	Split Size	

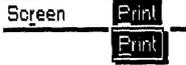
The operations are the same as with the Word Processing application. Please refer to "Change Screen" on page 81 for details.

- The short cut keys **CODE + Q** can be pressed only when you are in command mode.
- If the file that becomes active is a spreadsheet file, you are in command mode.

### Split Size

The operations are the same as with the Word Processing application. Please refer to "Split Size" on page 81 for details.

# Print Functions



Use the **Print** function from the function menu to print a range of cells or the entire worksheet.

When you want to specify print area, move the cursor to one corner of the range to be printed and press **MENU**, select **Print**; then select **Print** from the submenu. (Short cut: **PRINT**) *The SPREADSHEET PRINT MENU window appears:*

<< SPREADSHEET PRINT MENU >>	
PRINT AREA:	GLOBAL
PRINT POINT:	12 POINT
PRINT QUALITY:	FINE
CUT SHEET FEEDER:	OFF
PAGE SETUP:	<b>CURRENT</b> → RESET (LETTER PORTRAIT)

Press TAB to change setting and press RETURN.

## Setting the Print Options

Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **SPACE BAR** to select the desired options. Press **RETURN** when finished.

## Print Area

You can print a specified range or the entire worksheet.

To print the entire worksheet, use **SPACE BAR** to display **GLOBAL**.  
*OR*

To print a range of cells, proceed as follows:

1. Use **SPACE BAR** to display **RANGE (XX..XX)**.
2. Press **CURSOR RIGHT** or **TAB**. *This message appears:*

Move cursor to end of block to be printed and press RETURN.

3. Move the cursor to the opposite corner of the range to be printed, and press **RETURN**.

The selected range will now be displayed in the **SPREADSHEET PRINT MENU** window beside the **PRINT AREA** heading. This range specification will be saved along with your file and will not be reset until you change it again.

The line just under the **PRINT AREA** specification shows how many rows are going to be printed, as well as the number of characters in the rows. This indication is useful to prevent you from trying to print longer rows than you can fit on the paper (see **PAGE SETUP**).

## Print Point

Press **SPACE BAR** to select the size of the printed characters: 7, 10, or 12 points.

## Print Quality

Press **SPACE BAR** to select the print quality: FINE or DRAFT. DRAFT mode prints faster and uses less ink. DRAFT is adequate for trial copies, and FINE is for final copies.

## Print Frozen Title

Press **SPACE BAR** to select YES to print frozen title cells, or NO if you do not want to print the frozen title cells. If PRINT FROZEN TITLE is set to YES, a line showing how many rows are going to be printed as well as the number of characters in the rows is displayed under the words "PRINT FROZEN TITLE".

## Cut Sheet Feeder

Set CUT SHEET FEEDER to ON to feed paper automatically with the cut sheet feeder, or OFF to feed paper without the cut sheet feeder or manually feed a single page with the cut sheet feeder.

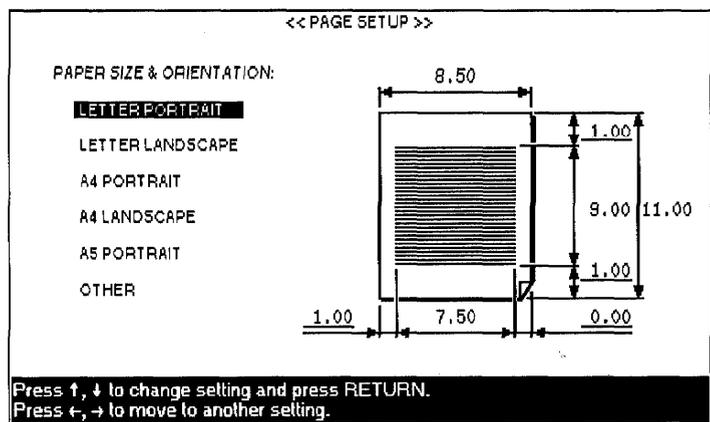
## Page Setup

The current paper size is indicated under the CURRENT heading in the Spreadsheet Print Menu. If the selected print area cannot fit, you can try to reduce the character size and/or change the PAGE SETUP.

### Changing the Page Setup

To change the PAGE SETUP, go to the Spreadsheet Print Menu and proceed as follows (See Print Functions to learn how to get to the Spreadsheet Print Menu.):

1. Move the cursor down to **CURRENT**; then press **CURSOR RIGHT** or **TAB**. The **PAGE SETUP** window will appear:



2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to select the paper size and orientation. This determines the width and length of the paper and the margins.

- Use the cursor keys to move the cursor to each entry field to type the desired values in inches.
  - You can move the cursor to the underlined fields only. The margin entry fields are always underlined. The **WIDTH** and **LENGTH** are underlined only if you select **OTHER** for the paper size.
  - Each field has room for five characters (four digits and a decimal point). Pressing **BACKSPACE** or **DELETE** clears the whole field.
  - If the **DATA AREA** width is less than one inch or the length is less than four inches, this message appears:

Incorrect setting!

- With **OTHER**, if you set the **WIDTH** to more than 12 inches, or the **LENGTH** to more than 14.33 inches, this message appears:

Incorrect setting!

Adjust the left and right margins so you can print all of the row of your selected **PRINT AREA**.

- When finished, press **RETURN** to go back to the **SPREADSHEET PRINT MENU** window.

## Printing

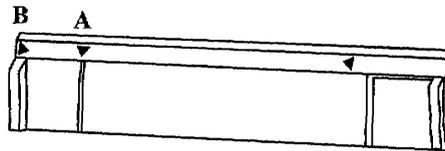
- When all the settings of the **SPREADSHEET PRINT MENU** window are complete, press **RETURN**. This message appears:

Insert paper and press RETURN.

- Set paper according to the **PAPER SIZE & ORIENTATION** settings.

If the paper size is less than 10.55 inch (Letter Portrait, A4 Portrait & A5 Portrait), please align the paper with the mark (A).

If the paper size is more than 10.55 inch, please align the paper with the mark (B). In case you think the left margin is too large at this time, please align the paper with the appropriate position.



Press **P INS** to insert the paper and press **RETURN** to start printing.

- If you try to print a range, but did not specify the range (the indication **Row:** and **CHARACTER:** shows **XXX** instead of actual settings), this message appears:

No range print area! Press **TAB** then mark range for printing.

- If a whole row cannot fit between the left and right margins, the machine prints the portion that can be printed and displays this message:

Line(s) truncated.

- During printing, you can press **CANCEL** to stop printing.

The maximum length of paper can be printed is 14.33 inch.

# 4 Addressbook

---

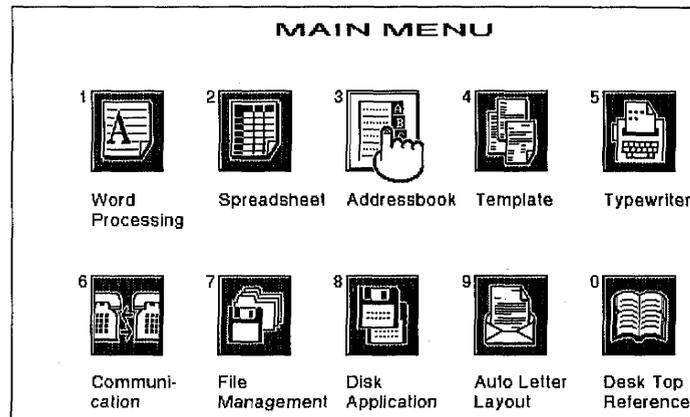
Use Addressbook application to input and organize data such as a list of names, addresses, telephone numbers, and fax numbers.

Each entry is called a record and is displayed as a single row divided into several items. On the top of the list of records, labels identify each item. You can edit, sort, and print the list. Parts of the list can be selected according to specific conditions.

When you save an Addressbook file, the system adds the extension MRG to the file name. Files with that extension can be used for merge printing with Word Processing files.

## Starting Addressbook

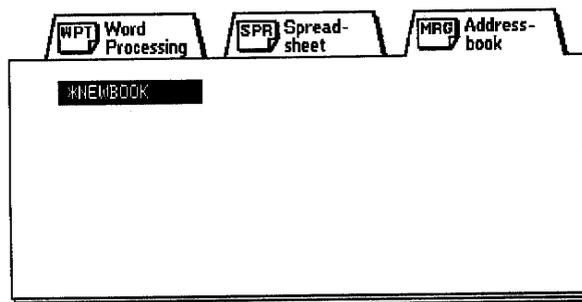
---



To create a new Addressbook file or recall a stored Addressbook file:

1. Switch the power on to display the Main Menu.
2. To retrieve an Addressbook file from a diskette, insert that diskette into the drive.
3. Press **3** or use the cursor keys to move the finger icon to highlight the Addressbook icon and press **RETURN**. *If a diskette is inserted, the list of the Addressbook files stored on the diskette appears.*

If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in *Getting Started* for the procedures on how to initialize a diskette.



Remember that you can press **CODE + H (HELP)** to get on-screen help.

- To open a stored file, use the cursor keys to highlight the file you want to retrieve, and press **RETURN**. To work with a new document, press **RETURN** with **\*NEWBOOK** highlighted. If you retrieve an existing Addressbook file, the View screen appears. If you start a **\*NEWBOOK**, the Data Input screen will be displayed, and you can enter your first record.

## Addressbook Screens

The Addressbook uses two screens: the view screen and the data input screen. The View Screen is for editing an existing Addressbook file and the Data Input Screen for creating a new record for an Addressbook file.

### The View Screen

	u	l	u	e	f	s
MR/MS	LAST NAME	FIRST NAME	TELEPHONE	FAX NO.	TITLE	COMPANY
<input checked="" type="checkbox"/>	Mr	Fletcher	Lawrence	201-272-5110		
<input checked="" type="checkbox"/>	Mr	Connelly	Patrick	212-308-5250	210-308-5050	Director The Bank
<input checked="" type="checkbox"/>	Mr	Glady	Harrison			
<input checked="" type="checkbox"/>	Mr	Weaver	Anthony	313-267-3550	313-267-6242	Manager PMK
<input checked="" type="checkbox"/>	Mrs	Johnson	Elizabeth	914-785-0877	914-785-0865	Designer Internat
<input checked="" type="checkbox"/>	Mr	Glenn	Kevin	212-696-9700	212-696-9800	President Public R
<input checked="" type="checkbox"/>	Miss	Andrews	Barbara	609-267-6242		
.....	.....	.....	.....	.....	.....	.....

The View Screen displays a list of your records. You can use that screen to make large-scale edits, such as moving or deleting a block of records, or sorting records. You cannot edit the contents of a single record on this screen.

The check marks that appear at the left of the records indicate that they are selected for printing. (A new record that you create is automatically selected for printing.) For more details about selecting a record for printing, see page 140.

## The Data Input Screen

MR/MS	Mr
LAST NAME	Fletcher
FIRST NAME	Lawrence
TELEPHONE	201-272-5110
FAX NO.	
TITLE	
COMPANY	
ADDRESS	38-25 Woodside Avenue, Woodside
CITY	New York
STATE	New York
ZIP	11377

The Data Input screen displays the contents of a single record and allows you to enter or edit the data of that record.

## Working with Addressbook

When creating or editing an Addressbook file, keep the following points in mind:

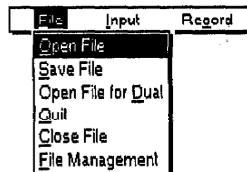
- The width of a column can be set between one and 71 characters.
- You can have a maximum of 20 different labels.
- The maximum length of a label name is 12 characters.

### File

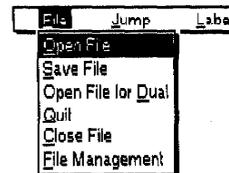
*If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in Getting Started for the procedures on how to initialize a diskette.*

The **File** functions are available on the View and Data Input screens. Use these functions to open, save, or close your files, and to return to the Main Menu.

These functions work exactly the same way as with the Word Processing application. Please refer to "File" on page 38 for details.

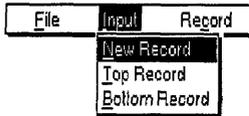


*View Screen*



*Data Input Screen*

## The Input Functions (View Screen)



Use these functions to create a new record or to move to the top or the bottom of the list:

**New Record:** Creates a new record.

**Top Record:** Jumps to the first record.

**Bottom Record:** Jumps to the last record.

### New Record

New Record is used to add a new record at the end of your Addressbook.

Press **MENU** and select **Input**; then select New Record from the function menu. (Short cut: **CODE + R**). *This switches the display to the Data Input screen.*

The data entry fields will be empty. The new data that you enter will be added at the end of your list when you return to the View Screen.

### Top Record

Top Record is used to jump to the first record of your Addressbook file. The record appears on the Data Input Screen.

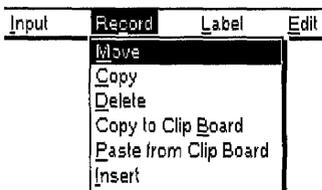
Press **MENU** and select **Input**; then select Top Record from the function menu.

### Bottom Record

Bottom Record is used to jump to the final record of your Addressbook file. The record appears on the Data Input Screen.

Press **MENU** and select **Input**; then select Bottom Record from the function menu.

## The Record Functions (View Screen)



Use the Record functions from the function menu to change the location or appearance of an entire block of text.

**Move:** Moves records from one location to another location in Addressbook.

**Copy:** Copies a block of records to another location. The originals are not changed.

**Delete:** Removes a block of records.

**Copy to Clip Board:** Copies a block of records to the Clip Board.

**Paste from Clip Board:** Pastes the contents of the Clip Board into the Addressbook.

**Insert:** Inserts a blank record.

## Move

This function removes a block of records from its original position and inserts it at another location.

1. To move records, position the cursor on the first record to be moved.
2. Press **MENU** and select **Record**; then select Move from the function menu. (Short cut: **CODE + E**) *This message appears:*

Move cursor to end of block to be moved and press RETURN.

3. Move the cursor to the end of the block. As the cursor moves, the selected text is highlighted.
4. Press **RETURN** when the desired block is indicated. *This message appears:*

Move cursor to destination for blocked record and press RETURN.

5. Move the cursor to where you want the records placed and press **RETURN**. The records are removed from its original position and inserted at the desired position.

## Copy

This function copies a block of records to another location without removing the original records.

1. To copy records, position the cursor on the first record to be copied.
2. Press **MENU** and select **Record**; then select Copy from the function menu. (Short cut: **CODE + C**). *This message appears:*

Move cursor to end of block to be copied and press RETURN.

3. Move the cursor to the end of the block. As the cursor moves, the selected text is highlighted.
4. Press **RETURN** when the desired block is indicated. *This message appears:*

Move cursor to destination for blocked record and press RETURN.

5. Move the cursor to where you want the records placed and press **RETURN**. *The records are inserted.*

## Delete

This function removes a block of records.

1. To delete records, position the cursor on the first record to be deleted.
2. Press **MENU** and select **Record**; then select Delete from the function menu.  
(Short cut: **CODE + D**). *This message appears:*

Move cursor to end of block to be deleted and press RETURN.

3. Move the cursor to the end of the block. *As the cursor moves, the selected text is highlighted.*
4. Press **RETURN** when the desired block is indicated. *The system asks you to confirm:*

Delete?	
Use cursor to select and press RETURN.	
[YES]	[NO]

5. Select **YES** to delete the block or **NO** to cancel the function.

## Copy to Clip Board / Paste from Clip Board

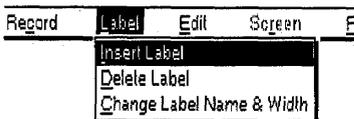
These operations are described in Clip Board on page 217.

## Insert

This function inserts a blank record.

1. Move the cursor to the position where you want a blank record.
2. Press **MENU** and select **Record**; then select Insert from the function menu.  
(Short cut: **CODE + I (INSERT)**) *A blank record appears at the selected position.*

## The Label Functions (View Screen)



Use the **Label** functions from the function menu to create, edit, or delete labels. The labels are the item names at the top of each column.

**Insert Label:** Creates a new label.

**Delete Label:** Deletes a specified label.

**Change Label Name & Width:** Edits a label name and changes the label width.

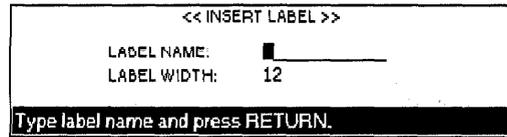
## Insert Label

This function creates a new label and sets the name and width of the label.

1. Press **MENU** and select **Label**; then select **Insert Label** from the function menu. *This message appears:*

Move cursor to position for insert label and press RETURN.

2. Move the arrow mark where you want a new label and press **RETURN**. *This window appears:*



<< INSERT LABEL >>  
LABEL NAME:   
LABEL WIDTH: 12  
Type label name and press RETURN.

3. Use **CURSOR UP** and **CURSOR DOWN** to move to the desired entry field. Type a label name and a value for the width. Press **RETURN** when finished.

*The maximum number of labels is 20.*

*The maximum length for a label name is 12 characters.*

*The width of a column must be between one and 71 characters.*

## Delete Label

This function removes columns of information together with their labels.

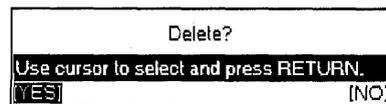
1. Press **MENU** and select **Label**; then select **Delete Label** from the function menu. *This message appears:*

Move cursor to start of block to be deleted and press RETURN.

2. Move the cursor to the beginning of the block of labels you want to delete, and press **RETURN**. *This message appears:*

Move cursor to end of block to be deleted and press RETURN.

3. Move the cursor horizontally to the end of the block of labels you want deleted. As the cursor moves, the selected labels are inversely displayed.
4. Press **RETURN** when the desired block is indicated. *The system asks you to confirm:*



Delete?  
Use cursor to select and press RETURN.  
[YES] [NO]

5. Select **YES** to delete the block or **NO** to cancel the function.

## Change Label Name & Width

The maximum length for a label name is 12 characters.

The width of a column must be between 1 and 71 characters.

This function changes a label name and/or width.

1. Press **MENU** and select **Label**; then select Change Label Name & Width from the function menu. *This message appears:*

Move cursor to position for change and press RETURN.

2. Move the cursor to the label that you want to edit, and press **RETURN**. *This window appears:*

<< CHANGE LABEL >>	
LABEL NAME:	BIRTHDAY
LABEL WIDTH:	12
Type label name and press RETURN.	

3. Use **CURSOR UP** and **CURSOR DOWN** to move to the desired entry field. Type a label name and a value for the width. Press **RETURN** when finished.

## The Edit Functions (View Screen)



Use the **Edit** functions from the function menu to sort your records and to select records from the file.

**Sort:** Sorts the records.

**Select:** Selects records.

### Sort records

The sort function can perform a double sort, primary and secondary. Usually, you will use the family name for primary sort, and the first name for secondary sort.

This function rearranges the records in alphabetic order.

1. Press **MENU** and select **Edit**; then select Sort from the function menu. *This message appears:*

Move cursor to primary sort label and press RETURN.

2. Move the cursor to the primary sort label and press **RETURN**. *This message appears:*

Move cursor to secondary sort label and press RETURN.

3. Move the cursor to the secondary sort label and press **RETURN**. If you do not need a secondary sort, leave the cursor on the primary sort label. *This window appears:*

Direction?
Use cursor to select and press RETURN.
[ASCENDING] [DESCENDING] [CANCEL]

4. Use **CURSOR LEFT** and **CURSOR RIGHT** to select and press **RETURN** when finished.
  - **ASCENDING**: Normal alphabetic order (A–Z).
  - **DESCENDING**: Reverse alphabetic order (Z–A).
  - **CANCEL**: Cancels the function.

## Select records

This function selects records that match specified conditions. When the records are found, you can print them or copy them to the Clip Board.

1. Press **MENU** and select **Edit**; then select **Select** from the function menu.  
*The SELECT window appears:*

<< SELECT >>

MR/MS	█
LAST NAME	
FIRST NAME	
TELEPHONE	
FAX NO.	
TITLE	
COMPANY	
ADDRESS	
CITY	
STATE	
ZIP	

Type character and press RETURN.

2. Use **CURSOR UP** and **CURSOR DOWN** to move to the desired entry field.  
Type the desired conditions.
3. Press **RETURN** when finished. *All entries that match your conditions exactly are selected.*

A message will tell you if the Addressbook cannot find any record that matches the conditions.

If the Addressbook can find record(s) that match the conditions, those records appear in the **SELECTED DATA** window:

<< SELECTED DATA: 6 >>

a	b	c	d
MR/MS	LAST NAME	FIRST NAME	TELEPHONE
Mr	Fletcher	Lawrence	201-272-5110
Mr	Connelly	Patrick	212-308-5250
Mr	Glady	Harrison	

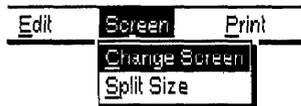
Use cursor to select and press RETURN.  
Press CODE + ↑, ↓, ←, → to view SELECTED DATA.

[EXIT] [PRINT] [COPY TO CLIP] [CANCEL]

For details about the Clip Board, see "Clip Board" on page 217.

4. If necessary, use **CODE** + the cursor keys to scroll the displayed data. Use **CURSOR LEFT** and **CURSOR RIGHT** to select an option and press **RETURN** when finished.
  - **EXIT**: Returns to the View screen.
  - **PRINT**: Prints the selected data.
  - **COPY TO CLIP**: Copies the selected data to the Clip Board. Once the data has been stored into the Clip Board, you can paste it to another file.
  - **CANCEL**: Cancels the function.

## The Screen Function (View Screen)



Basically, the screen operations are the same as with the Word Processing application. Please refer to "Screen" on page 81 for details.

Use the Screen functions from to control the display. (This function is only available in dual mode.)

**Change Screen**: Swaps the active file while working in dual mode.

**Split Size**: Adjusts the screen size while working in dual mode.

## The Print Function (View Screen)

Use the **Print** functions from the function menu to select records for printing, and to print your Addressbook:

**Print**: The print function prints envelope labels (**LABEL** printing) or a list of records (**LIST** printing).

**Print Record ON/OFF**: Sets the check (✓) mark to turn printing on or off.

## Printing labels

1. Press **MENU** and select **Print**; then select **Print** from the submenu. (Short cut: **PRINT**) *The ADDRESSBOOK PRINT MENU window appears:*

```
<< ADDRESSBOOK PRINT MENU >>

PRINT APPLICATION:      LABEL
PRINT RECORD:          ALL
PRINT POINT:           12 POINT
PRINT QUALITY:         FINE
CUT SHEET FEEDER:      OFF
LABEL SIZE:             2 5/8 X 1
NUMBER OF LABELS ACROSS: 3

Press SPACE to change setting and press RETURN.
```

2. Use the cursor keys to move the cursor to the desired setting. Use **SPACE BAR** to alternate between the settings. Press **RETURN** when finished.
  - **PRINT APPLICATION: LABEL** Prints envelope labels.
  - **PRINT APPLICATION: LIST** Prints a list of the records.
  - **PRINT RECORD: ALL** Prints all records.
  - **PRINT RECORD: SELECTABLE(✓)** Prints only selected records indicated with a check mark.
  - **PRINT POINT: 12, 10, 7 POINTS** Selects the character size.
  - **PRINT QUALITY: FINE** For final quality printing.
  - **PRINT QUALITY: DRAFT** For trials.
  - **CUT SHEET FEEDER : OFF** Cut sheet feeder is not attached, or you are using manual paper feed with the cut sheet feeder.  
**CUT SHEET FEEDER : ON** Cut sheet feeder is attached and you wish to use it for automatic paper feed.
  - **LABEL SIZE: 2 5/8 X 1, 4 X 1 1/3, 4 X 1, or 4 X 2** The size of the labels is in inches. Three 2 5/8 X1 will fit across the page. The other sizes will allow only two labels to fit across the page.
  - **NUMBER OF LABELS ACROSS / 3, 1, 2:** If the size is 2 5/8 X 1, three labels can fit across the page; with other sizes, only two labels can fit across the page.
3. Select **LABEL** before printing and press **RETURN** to enter the settings of the **ADDRESSBOOK PRINT MENU** window. *The **POSITION SET PRINT MENU** for **LABEL** printing appears:*

*NOTE: We recommend that you use name brand laser printer labels such as Avery®. High quality white labels work better than clear labels.*

<p style="text-align: center;">&lt;&lt; POSITION SET PRINT MENU &gt;&gt;</p> <div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 80%;"> <p>√a. MR/MS</p> <p>√b. LAST NAME</p> <p>√c. FIRST NAME</p> <p>d. TELEPHONE</p> <p>e. FAX NO.</p> <p>f. TITLE</p> </div> <div style="background-color: black; color: white; padding: 5px; margin-top: 5px; font-size: small;">       Use cursor to select label name and press SPACE to set, DELETE to clear. Press RETURN to start printing.     </div>	<div style="border: 1px solid black; padding: 20px; margin: 5px auto; width: 80%; text-align: center;"> <p>acb</p> <p>g</p> <p>h</p> <p>ijk</p> </div>
--	--

This window allows you to decide the contents and structure of the labels. The left box displays the list of titles (labels) of the current Addressbook file, preceded by a small letter. The right box shows the contents and structure of the label. For example, the first line, *acb*, means that the first line of the labels will be made of Mr. or Ms. followed with the first name and last name. A blank space is automatically added between each item.

The default settings correspond to the standard format for envelope labels in the U.S.A. If this is what you need, you can press **RETURN** to start printing. The Addressbook application will ask you to insert paper. See "To Start Printing" on page 144.

## Changing label settings

If you press **CANCEL** while the cursor is in the right box, the setting of the current label name is cancelled and you return to the left box. If you press **CANCEL** while the cursor is not in the right box, you return to the **ADDRESSBOOK PRINT MENU** window.

The default settings for the label structure and contents appear only when you are working with an Addressbook file in which you have not changed the standard label names.

## Printing a list

1. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired label name in the left box of the window.
2. To remove a label name that is already set, press **DELETE**. The check mark on the left of the label name disappears, and the small letter corresponding to that label is removed from the right box.

To set a label name, press **SPACE BAR** and the cursor appears in the right box. Use the cursor keys to move the cursor in the right box to the desired position, and press **RETURN** to confirm the setting. When the cursor appears in the left box, a **✓** mark appears.

3. Repeat steps 1 and 2 to get all necessary items at the correct location.
4. To start printing, press **RETURN** when there is no cursor in the right box. The Addressbook asks you to insert paper. See "To Start Printing" on page 144.

1. Press **MENU** and select Print; then select Print from the function menu. (Short cut key: **PRINT**) The **ADDRESSBOOK PRINT MENU** window below appears:

```
<< ADDRESSBOOK PRINT MENU >>

PRINT APPLICATION:      LABEL
PRINT RECORD:          ALL
PRINT POINT:           12 POINT
PRINT QUALITY:         FINE
CUT SHEET FEEDER:     OFF
LABEL SIZE:            2 5/8 X 1
NUMBER OF LABELS ACROSS: 3

Press SPACE to change setting and press RETURN.
```

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to **PRINT APPLICATION** and use **SPACE BAR** to select **LIST**. The Addressbook Print Menu changes as shown below:

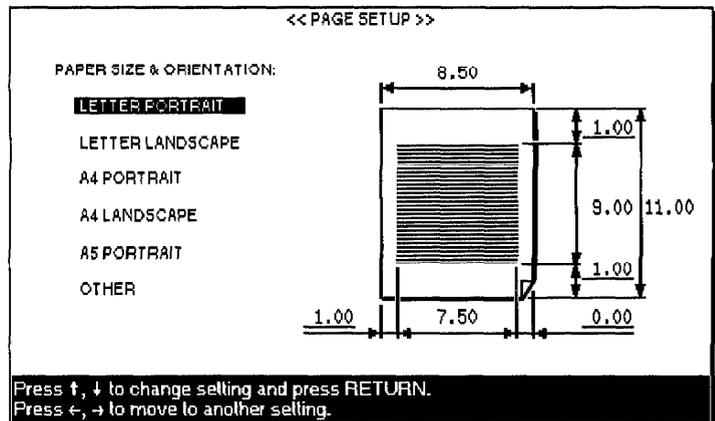
```
<< ADDRESSBOOK PRINT MENU >>

PRINT APPLICATION:      LIST
PRINT RECORD:          ALL
PRINT POINT:           12 POINT
PRINT QUALITY:         FINE
CUT SHEET FEEDER:     OFF
PAGE SETUP:            CURRENT → RESET
                       (LETTER PORTRAIT)

Press SPACE to change setting and press RETURN.
```

## Changing page setup

1. Move the cursor to Page Setup and press **CURSOR RIGHT** or **TAB** to select **RESET**. *The Page Setup window appears.*



You can set **PRINT RECORD**, **PRINT POINT**, **PRINT QUALITY**, and **CUT SHEET FEEDER** as you would when printing labels. **LABEL SIZE** does not appear on this window. Instead, you can set the page parameters using **PAGE SETUP**. The current paper size is indicated under **CURRENT**.

2. Use **CURSOR UP** and **CURSOR DOWN** to select the paper size and orientation. This determines the width and length of the paper, and the margins.
3. Use the cursor keys to move the cursor to the entry field for each margin setting and type the desired values in inches.
  - You can move the cursor to the underlined fields only. The margin entry fields are always underlined. The **WIDTH** and **LENGTH** are underlined only if you select **OTHER** for the paper size.
  - Each field has room for five characters (four digits and a decimal point). Pressing **BACKSPACE** or **DELETE** clears the whole field.
  - If the **DATA AREA** width is less than one inch or its length is less than four inches, this message appears:

Incorrect setting!

- With **OTHER**, if you set the **WIDTH** to more than 12 inches or the **LENGTH** to more than 14.33 inches, this message appears:

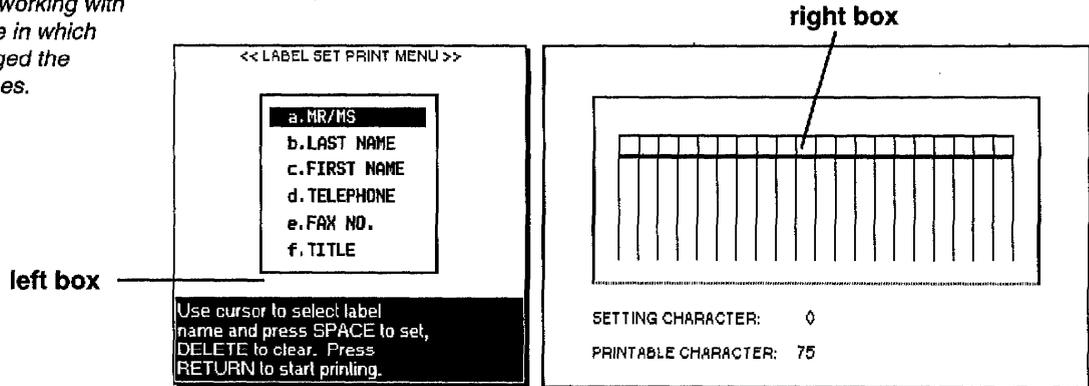
Incorrect setting!

If you press **CANCEL** while the cursor is in the right box, the setting of the current label name is canceled and you return to the left box. If you press **CANCEL** while the cursor is not in the right box, you return to the **ADDRESSBOOK PRINT MENU** window.

4. When finished, press **RETURN** to go back to the **ADDRESSBOOK PRINT MENU** window.
5. Press **RETURN** to display the **LABEL SET PRINT MENU** window.

This window allows you to decide the contents and structure of the list you want to print. The left box displays the list of the labels of the current Addressbook file, preceded with a small letter. The right box shows the contents and structure of the list.

The default settings for the label structure and contents appear only when you are working with an Addressbook file in which you have not changed the standard label names.



## Changing label print settings

1. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired label name on the left box of the window.
2. To remove a label name that is already set, press **DELETE**. The check mark at the left of the label name disappears, and the small letter corresponding to that label is removed from the right box.

To set a label name, press **SPACE BAR** and the cursor appears in the right box. Use the cursor keys to move the cursor in the right box to the desired position and press **RETURN** to confirm the setting. When the cursor moves to the left box, a ✓ mark appears.

3. Repeat steps 1 and 2 to get all necessary items in the correct location.

As you add labels, Addressbook automatically displays the label width to be printed. The total width, according to the selected character size and your page setup is also displayed. If you set too many labels in the records to be printed, so that their length exceeds the printable length, your records are truncated.

## To start printing

1. Press **RETURN** while there is no cursor in the right box. The Addressbook asks you to insert paper.

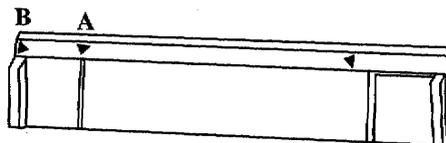
Insert paper and press RETURN.

The maximum length of paper that can be printed is 14.33 inches.

2. Set paper according to the **PAPER SIZE & ORIENTATION** settings.

If the paper size is less than 10.55 inch (Letter Portrait, A4 Portrait & A5 Portrait), please align the paper with the mark (A). See illustration below.

If the paper size is more than 10.55 inch, please align the paper with the mark (B). See illustration below. In case you think the left margin is too large at this time, please align the paper with the appropriate position.



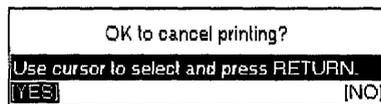
Press **P INS** to insert the paper and press **RETURN** to start printing.

## To stop printing

When label or list printing starts, this message appears:

Printing....press CANCEL to stop printing.

You can press **CANCEL** to cancel printing. This window appears:



Select **YES** to cancel printing or **NO** to cancel the function.

## Selecting records for merge printing

This function turns on or off the check mark that appears at the left of the records on the View screen.

During merge printing with the Word Processing application, records without the check mark is ignored.

During **LABEL** or **LIST** printing, only records with a check mark print if you select **PRINT RECORD: SELECTABLE (✓)**. If you select **PRINT RECORD: ALL**, the check marks make no difference.

A check mark to the left of a record indicates that the record is active. You may select only particular records for merge printing. (A new record is automatically active.)

### To select records for printing:

1. Press **MENU** and select **Print**; then select **Print Record ON/OFF** from the function menu. This window appears:

How do you set print record on/off?  
 Use cursor to select and press RETURN.  
 [CHOICE] [ALL RECORD ON] [ALL RECORD OFF] [CANCEL]

2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select the settings and press **RETURN**.
  - **CHOICE**: To set the check mark on or off for a block of records.
  - **ALL RECORD ON**: Sets the check mark on for all records.
  - **ALL RECORD OFF**: Sets the check mark off for all records.
  - **CANCEL**: Cancels the function.

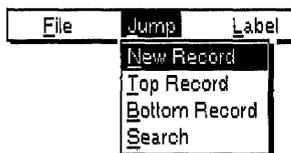
*When you select CHOICE, this message appears:*

Use cursor to select and press SPACE for print record on/off. Press RETURN.

3. Move the cursor to the desired record and use **SPACE BAR** to set the check mark on/off. Press **RETURN** when finished.

You can also highlight the record on the View screen and press **SPACE BAR** to make a record inactive. The check mark of the selected record disappears. Pressing **SPACE BAR** again reactivates the record.

## The Jump Functions (Data Input Screen)



Use the Jump functions to create a new record, to display the top or the bottom record, or to search for a piece of information.

**New Record**: Creates a new record.

**Top Record**: Displays the first record.

**Bottom Record**: Displays the last record.

**Search**: Searches for a piece of information.

The first three functions, New Record, Top Record, and Bottom Record work in the same way as the functions on the View screen. See "Input (View Screen)" on page 134.

## Search

This function searches for a specified text string.

1. Press **MENU** and select **Jump**; then select Search from the function menu. *The Search window appears.*
2. Define the search string and other parameters as you would with the Word Processing application. See "Search" on page 46. *When an occurrence of the specified string is found, this window appears:*

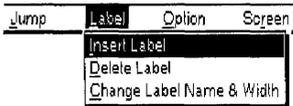
Next search?  
 Use cursor to select and press RETURN.  
 [YES] [NO]

*You can also press **CODE + G (GOTO) + CURSOR UP** to jump to the top record, or **CODE + G (GOTO) + CURSOR DOWN** to jump to the bottom record.*

3. Select **YES** to search for the next occurrence, or **NO** to stop searching. *When the string cannot be found, this message appears:*

Word(s) not found.

## The Label Functions (Data Input Screen)



Use the **Label** functions from the function menu to create, edit, or delete labels.

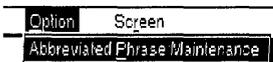
**Insert Label:** Creates a new label.

**Delete Label:** Deletes a label.

**Change Label Name & Width:** Edits a label and changes the column width.

- All these functions work the same way as on the View Screen. See "Label (View Screen)" on page 136.

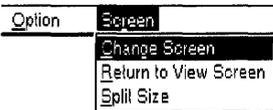
## The Option Functions (Data Input Screen)



The **Option** function of Addressbook has only one sub-function: Abbreviated Phrase Maintenance.

For details, see "Abbreviated Phrase Memory" on page 71.

## The Screen Functions (Data Input Screen)



Use the **Screen** functions to control the display.

**Change Screen:** Swaps the active file while working in dual mode.

**Split Size:** Adjusts the screen size while working in dual mode.

**Return to View Screen:** Returns to the View Screen.

The functions of **Change Screen** and **Split Size** are the same as with the Word Processing application. Please refer to "Using the Screen Functions" on page 81 for details.

## Return to View Screen

This function returns to the View Screen after editing or creating a record on the Data Input Screen.

Press **CODE + RETURN**. (Or press **MENU** and select **Screen**; then select Return to View Screen from the function menu.) *The View Screen appears immediately.*



# 5 Template

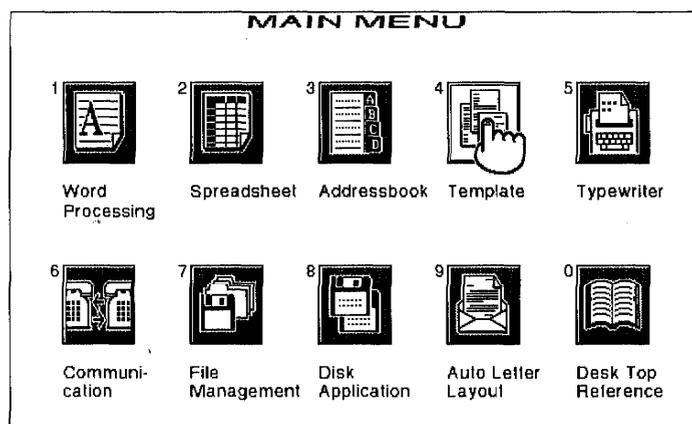
The **Template** icon on the Main Menu allows you to open sample files for the Word Processing, Spreadsheet, or Addressbook applications.

A Template is a file that contains a predefined format for a type of document. Some example templates include Purchase Order Forms, Fax Cover Sheet Forms, Party Invitations, etc.

To use a template, open the template file, make any changes you would like and then save the revised file under a new file name. You cannot change the original template file. You may use these templates over and over again.

The first template file is named “-README”. You may print this file for a complete list of all template files contained on your diskette.

## Opening a Template File



1. Switch the power on to display the Main Menu.
2. Insert the **Template** diskette into the drive.
3. Press **4** or use the cursor keys to highlight the **Template** icon and press **RETURN**. *The list of the word processing template files stored on the disk appears.*

*When a template file is opened, the file name extension is replaced and the file can be edited in the same way as a normal **WPT/SPR/MRG** file. When saving, save the file with a new file name.*

The template file name extensions are:

- **WP1:** Word Processing
- **SP1:** Spreadsheet
- **MR1:** Addressbook

Files with different file name extensions will not appear on the index screen.

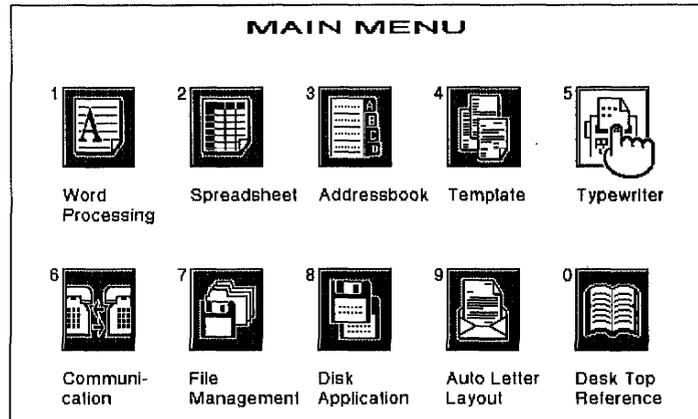
*You should first open and read the template file named "-README". This file is a list of all template files on diskette.*

4. To select the application, use **CURSOR LEFT** and **CURSOR RIGHT** to highlight the desired title; then press **CURSOR DOWN** or **RETURN**.
5. Use the cursor keys to select a template and press **RETURN**. *The file opens and you can start editing.*

# 6 Typewriter

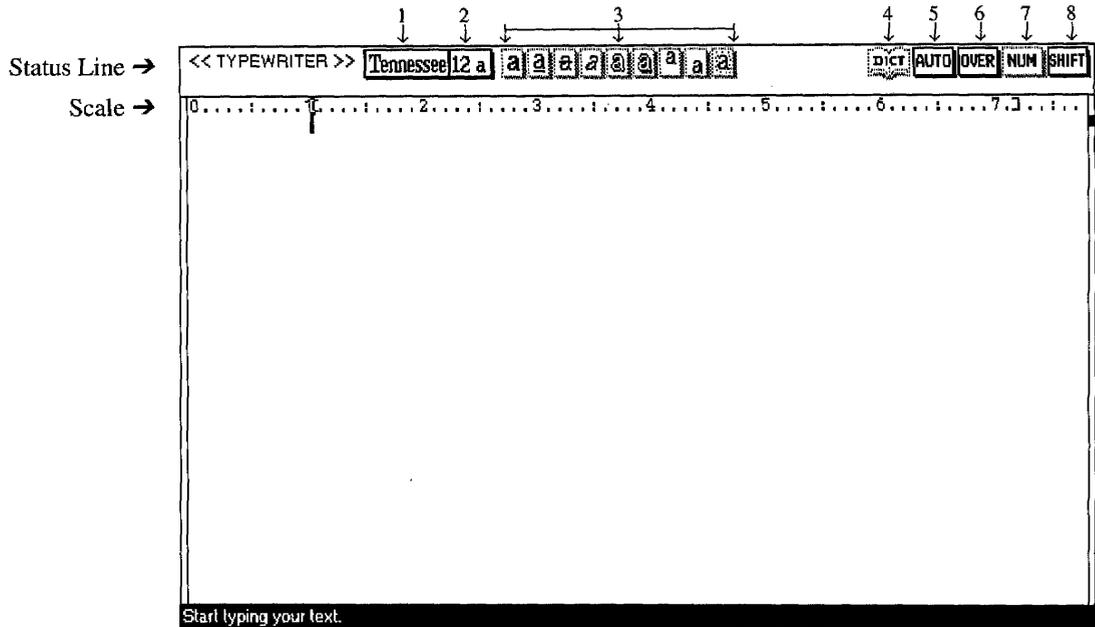
---

## Starting the Typewriter application



1. Switch the power on to display the Main Menu.
2. Press **5** or use **CURSOR LEFT** and **CURSOR RIGHT** to move the finger cursor to highlight the Typewriter icon and press **RETURN**.

# Input/Edit screen



**Status Line:** The indicators on the status line show your current document settings.

From left to right they are:

1. The font name.
2. The font size (in points) and font mode (double width or height).
3. The font style indicator. The highlighted indicators (framed with a solid line) tell you which type style is activated. From left to right, they are bold, underline, strike-out, italic, outline, shadow, superscript, subscript, and shading.
4. The Spell Check indicator. It is highlighted (framed with a solid line) when Spell Check is monitoring your typing.
5. The auto return or justification indicator. It tells you when you are in either the auto return (AUTO) or justify (JUST) mode. When both Justification mode and Auto return mode are OFF, (AUTO) is not highlighted.
6. The Insert or Overwrite indicator. It tells you when you are in either the Insert (INS) or overwrite (OVER) mode.
7. Numeric lock mode indicator. It is highlighted (framed with a solid line) when the keyboard is locked in numeric mode.
8. Capital lock mode indicator. It is highlighted (framed with a solid line) when **SHIFT** is pressed (SHIFT) or **SHIFTLOCK** is pressed and the system is locked in capital mode (CAPS).

**Scale:** The scale on the screen of the word processor is the electronic equivalent of the scale on the top of a typewriter. It assists in determining the position of a character on a page. The numbers indicate the position from the left edge of the paper. There are other symbols that remind you of format settings: left margin ( [ ), right margin ( ] ), normal tab ( ↓ ), center tab ( ⌵ ), leader tab ( ⌵ ), and decimal tab ( ⌵ ). The scale can be disabled to get one additional line on the screen for your text.

## Hot zone

The maximum length of paper can be printed is 14.33 inch.

The machine will beep when the cursor enters the hot zone. The hot zone starts 0.6 inch before the right margin.

## Basic Typing

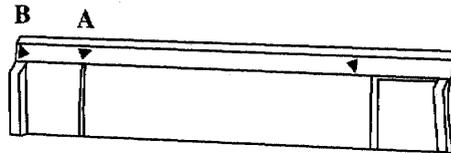
The maximum length of paper for printing is 14.33 inches.

*Note for Automatic Paper Feeding with Optional Cut Sheet Feeder: Do not reverse a loaded sheet of paper more than 3/8" (9.5 mm). If you reverse the paper more than that, the optional cut sheet feeder may feed a second sheet of paper while the first sheet of paper is still in the Whisperwriter.*

1. Align the paper to be printed against the paper support marks.

If the paper width is less than 10.55 inch (Letter Portrait, A4 Portrait & A5 Portrait), please align the paper with the mark (A).

If the paper width is more than 10.55 inch, please align the paper with the mark (B). If the left margin is too large at this time, please adjust the paper to the appropriate position.

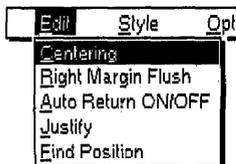


2. Press **P INS** to insert the paper.
3. Type your text. You may start typing approximately one inch from the top of the paper. *The text is displayed on the screen.*

If you make a mistake, use **BACKSPACE**, **DELETE**, **WORD OUT** or **LINE OUT** to erase.

4. To print what you have typed, press **RETURN**. Printing will start automatically if you type the text beyond the right margin when the Auto Return is set to ON.

## Edit Functions



Use the Edit functions from the function menu to make changes in the appearance of your text.

**Centering** : Centers text between margins.

**Right Margin Flush** : Aligns text flush to the right margin.

**Auto Return ON/OFF** : Print the existing text and go to the next line if you type the text beyond the right margin.

**Justify** : Adds extra space between words so that the last character of a line is aligned with the right margin.

**Find Position**: Moves the carriage to the position on the paper that corresponds to the cursor position on the screen.

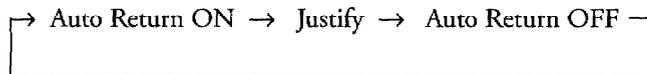
To learn how to use Centering, Right Margin Flush, and Justify, please refer to "Edit functions" in Word Processing.

## Auto Return ON/OFF

When this function is turned on, the carrier is automatically returned to the left margin when you type the text beyond the right margin. The **Auto Return ON/OFF** command will toggle this function on and off.

To turn the function on:

Press **MENU** and select **Edit**; then select **Auto Return ON/OFF** from the function menu, or press **CODE + J**. Pressing **CODE + J** changes the settings through the following cycle:



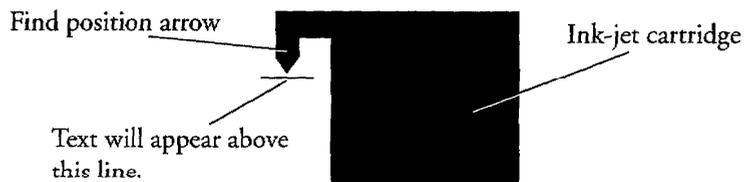
## Find Position

This function allows you to place text exactly where you need it for filling out forms.

1. Insert paper using **P INS** and use **CODE + P UP** to reach the line where you wish to enter text. Then note the position on the top cover ruler where the first letter of the first word will begin.
2. At the top of the screen, find the same position on the ruler. Using the **SPACEBAR**, place the cursor in this position.
3. Press **MENU** and select **Edit**; then press **F** for Find Position. *The "Find Position Arrow" on the ink-jet cartridge moves to the position on the paper that corresponds to the cursor location on the screen.*

*After 10 seconds, the carriage returns to the right end position.*

*If you are going to fill in a column, you may want to set tabs when you have found the exact position on the page.*



4. Use **CODE + P UP** and **CODE + P DOWN** to move the paper so that the tip of the Find Position Arrow is just above the blank line you want to fill.
5. If this is the location where you would like text to begin, type your text and press **ENTER**. The text will be printed at the desired location on the form.

## Style Functions



Use the Style functions from the function menu to modify the appearance of your document.

**Type Style Change:** Allows you to switch type attributes on and off. Examples of these attributes include Bold, Italic, etc.

**Font & Size:** Allows you to select font type, size and mode.

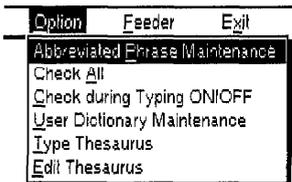
**Margins & Tabs:** Allows you to set left and right margins and tab stops.

**Line Spacing:** Allows you to set the line spacing.

**Page Setup:** Allows you to select paper size, orientation, top and bottom margins.

To learn how to use each function, please refer to "Word Processing".

## Option Functions



Use the Option functions from the function menu to spell check your text, maintain a user dictionary, refer to a thesaurus, and maintain an abbreviated phrase file.

**Abbreviated Phrase Maintenance:** Allows you to edit, load and save an Abbreviated Phrase file.

**Check All:** Allows you to spell check all text in a line.

**Check during Typing ON/OFF:** Checks your spelling while you are typing.

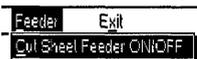
**User Dictionary Maintenance:** Allows you to edit, load and save a User Dictionary file.

**Type Thesaurus:** Helps you find synonyms for a word.

**Edit Thesaurus:** Helps you find synonyms for the word at the current cursor position in a line.

To learn how to use these functions, please see "Word Processing".

## Feeder Function

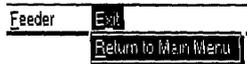


**Cut Sheet Feeder ON/OFF:** This function should be set ON when the cut sheet feeder is installed and you wish to use it for paper feeding.

Press **MENU** and select **Feeder**; then press **C**. With the **SPACE BAR**, select Cut Sheet Feeder ON if the cut sheet feeder is installed in your machine and you wish to use it for automatic paper feeding. Select OFF if you wish to manually feed paper with or without the cut sheet feeder. For details, see "Feeding paper" on page 7.

Note for Optional Cut Sheet feeder: If you have the Cut Sheet Feeder ON, you cannot reverse the paper for more than 3/8" (9.5 mm) with the platen knob (P Down will not work with the Cut Sheet Feeder set to ON). If you reverse the paper more than that, the Cut Sheet Feeder will try to feed a second sheet of paper while the first sheet is still in the Whisperwriter.

## ***Exit Function***



**Return to Main Menu:** Use this function to return to the Main Menu screen.

Press **MENU** and Select **Exit**; then select **Return to Main Menu** from the function menu. *This will quit the Typewriter application and display the main menu.*

If data is still on the screen, the word processor prints the page before quitting the Typewriter application.

# 7 Communication

(WP-7550J PLUS & WP-7550J only)

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The Communication application is used to communicate between your Brother Word Processor and a personal computer or another word processor. This communication is done via modem and the telephone line. The most popular use of this feature is to exchange messages and files with friends and obtain access to commercial data bases and electronic mail services such as CompuServe. When you use the Communication application, the data is converted at each end of the line to ensure compatibility.

## About Modems

*Before trying to access a data or electronic mail service, you must establish an account with the desired service and receive an ID name and password.*

*Refer to the modem documentation for setting the jumper connectors and DIP switches, if any. Usually, the manufacturer's settings do not need to be changed.*

In order to connect your word processor to another machine via a telephone line, you need a modem to connect your word processor to the telephone line. Not all external modems available on the market are compatible with your machine. When you purchase a modem and a modem cable (serial), make sure to consult your Brother dealer. The recommended model is (MO-700 BPS DATA MODEM). You may use a HAYES AT compatible modem.

# Using Communications

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1. **Setting up:** Communicating through a modem is very similar to a telephone conversation between two people. In order to make the conversation possible, some rules must be observed. For example, both persons will speak the same language and will agree to speak one at a time. When communicating through modems, some parameters like baud rate and parity must have the same setting at each end of the line.

When you subscribe to an information service, you receive a list of the settings that you are required to use. If you use different settings, the host computer can not communication with your Whisperwriter.

Before you try to communicate with a friend, simply agree on the settings that you will use. For more details about the setting, see "New Set Up" on page 163.

2. **Being dialed:** The COMMUNICATION screen of your system must be displayed on the screen when someone is dialing you. If you are working with your system or if you are already communicating with someone, your system cannot be dialed.
3. **Dialing:** This machine performs automatic dialing. This means that you type the phone number on the screen instead of dialing the phone number on the telephone.

An information service can usually be dialed at any time. The same is not always true when transferring a file to a friend's personal computer. Before dialing a friend, call them to make sure that their computer is ready.

For more details about dialing, see "Dial" on page 168.

4. **Auto log-in:** The log-in data contains the information that allows an information service to identify you. This machine records the log-in data as you enter it on the screen when requested to do so by the information service. Once the log-in data has been recorded, the machine will automatically transmit it after dialing.
5. **Transmitting/Receiving:** Once you are connected, the text that you type is transmitted and the text that is received is displayed on your screen. Optionally, the text transmitted can be "echoed" back to your screen for confirmation.

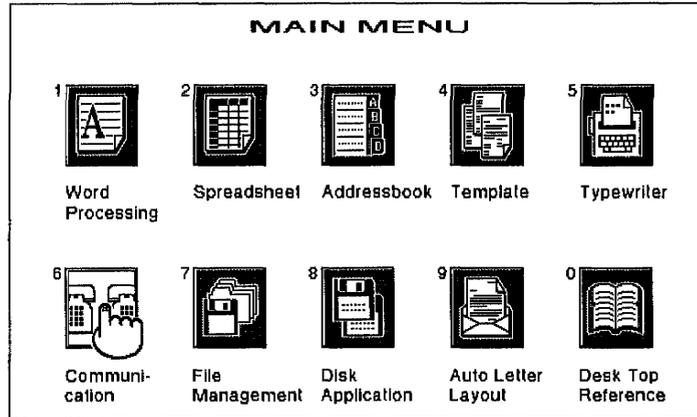
You can transmit the contents of a Document file or store the information received in a memory file. For more details about sending and receiving files, see "Send WP Text" on page 170 and "Receive ASCII File" on page 172.

# Using a Communication Parameter File

A Communication file stores the setting information necessary for communicating. It stores the set up parameters and any log-in data that is required for transmission or reception.

## Opening a Communication File

1. Switch the power on to display the Main Menu.

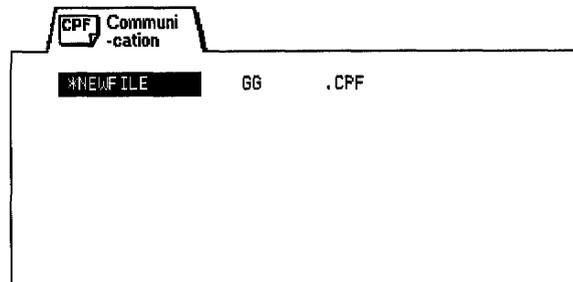


- You cannot start the communication mode if the modem is not connected. If you selected Communication without the modem, this error message appears.

Modem is not connected!  
Press any key to continue.

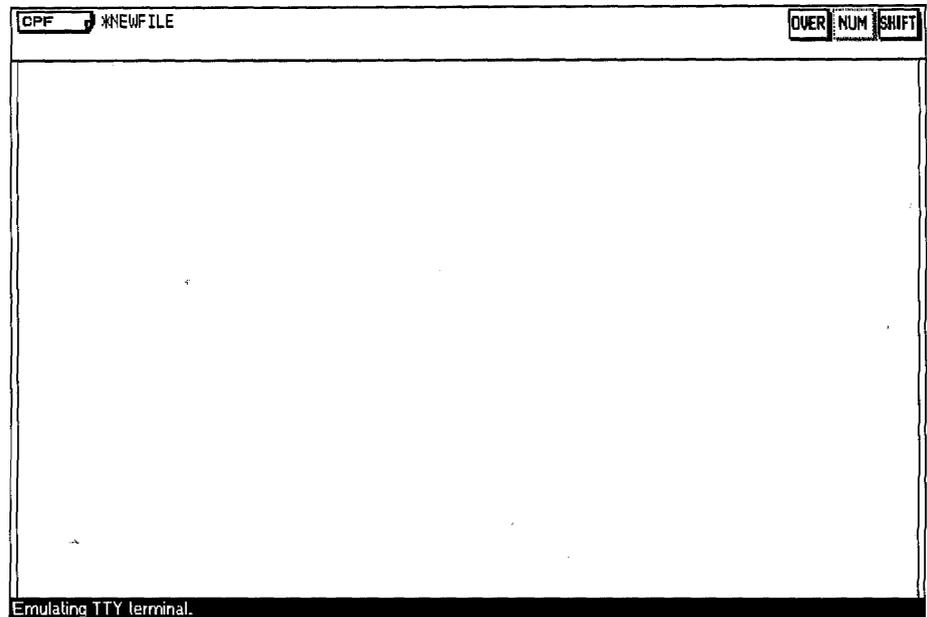
If this message appears, please turn the machine OFF and connect the modem. Then try again.

2. If you want to retrieve a communication file from a diskette, insert that diskette into the drive.
3. Press **6** or use the cursor keys to move the finger icon to highlight the Communication icon and press **RETURN**. *If a diskette is inserted, the list of communication files stored on the diskette appears.*

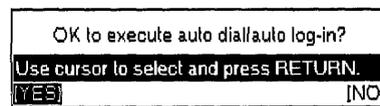


If you call an information service, you must also identify yourself with a "log-in".

4. Use the cursor keys to highlight the file you want to retrieve and press **RETURN**. To start working a blank file, highlight \*NEWFILE and press **RETURN**. The Communication screen appears.



If you retrieve an existing Communication file and a telephone number is already set up, this window appears.



If **YES** is selected, auto dial will be executed and then auto log-in will be executed if log-in data exists. If **NO** is selected, the Communication screen appears without executing auto dial and auto log-in.

## About Communication Files

Communication files are used to store the communication parameter settings. The file currently in memory is active. You can edit it and use it for automatic dialing. You can have only one Communication file in the memory. The file is automatically updated in the memory as you edit it.

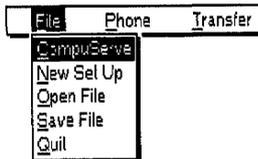
If you need to work on a different Communication file, save the current file on a diskette. For details, see "Save File" on page 166. The system asks you to enter a file name under which the file will be saved on the diskette. After saving the current file, you can clear all the data and start creating a new file.

When you retrieve a Communication file from a diskette, the current file is deleted and replaced with the file that you load. For details, see "Open File" on page 165.

The file name of the Communication file is displayed in the upper-left corner of the Communication screen. The default file name of a new Communication file is "\*NEWFILE". If the Communication file has been saved on diskette and then loaded back into memory, the file name under which you saved the file on diskette is displayed.

## Communication Functions

### File Functions



Use the File functions from the function menu to open, save, or close your files, and to return to the Main Menu.

**CompuServe:** To create a log-in file that executes the command sequence for accessing CompuServe.

**New Set Up:** To set up a telephone number and communication parameters.

**Open File:** To load a communication parameters file which is already set up on a diskette.

**Save File:** To save a communication parameters file onto a diskette.

**Quit:** To exit the file without saving and return to the MAIN MENU.

### CompuServe

This function allows you to create a file to execute log-in for CompuServe.

1. Press **MENU** and select **File**; then select CompuServe from the function menu. *This window appears:*

<< COMPUSEVE LOG-IN FILE >>

PHONE NUMBER: \_\_\_\_\_

DIAL MODE: \_\_\_\_\_ TONE

BIT PER SECOND: \_\_\_\_\_ 2400

USER ID: \_\_\_\_\_

PASSWORD: \_\_\_\_\_

Type telephone number and press RETURN.

If a CompuServe file already exists on a diskette which is inserted into the drive, the machine automatically loads the file.

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired parameter. Type your user ID number, your password, and use **SPACE BAR** to select the DIAL MODE and BIT PER SECOND settings.
  - **DIAL MODE : TONE** For push-button phone

DIAL MODE : PULSE For dial phone

- **BIT PER SECOND (BAUD RATE):** This parameter determines the transmission speed in bits per second. There are six rates (300/600/1200/2400 /4800/9600) available. The sending and receiving units must be set to the same baud rate.
- **USER ID:** The user ID number which is given by CompuServe. Up to 15 characters can be input.
- **PASSWORD:** The password that was given to you by CompuServe.

3. Press **RETURN** to save the file. *This window appears:*

Save this information?	
Use cursor to select and press RETURN.	
[YES]	[NO]

If **YES** is selected, the following information will be saved automatically in addition to the above information. These parameters can be changed after opening this CompuServe file with Open File function. However, even if these parameters are changed, they will go back to the following setting as before, except for the phone number, dial mode, and bit per second.

-PARITY:	EVEN
-DATA BITS:	7
-STOP BITS:	1
-XON/XOFF CONTROL:	ON
-SIGNAL LINE CONTROL:	NONE
-LOCAL ECHO:	OFF
-AUTO LINE FEED:	ON
-AUTO LINE FEED (SEND):	ON

*If a CompuServe file already exists on a diskette and YES is selected, the window shown below appears.*

CompuServe file already exists on disk! Overwrite?	
Use cursor to select and press RETURN.	
[YES]	[NO]

When the CompuServe file is saved, the file name of "\$\$COMPUS.CPF" is automatically selected.

Select **YES** to overwrite the existing file, or select **NO** to return to the COMPUSERVE LOGIN FILE.

4. Select **YES** and press **RETURN** to save the file onto a diskette, or select **NO** if you do not want to save the file. *This window appears.*

OK to execute auto dial/auto log-in? ..	
Use cursor to select and press RETURN.	
[YES]	[NO]

The information for the CompuServe file will be automatically stored and kept in the memory until overwriting or exiting from the Communication function.

5. Select **YES** to execute auto dial/auto log-in, or select **NO** to return to the Communication screen without executing auto dial/auto log-in.

## New Set Up

This function allows you to set up the telephone number and communication parameters to execute log-in for communication.

1. Press **MENU** and select **File**; then select New Set Up from the function menu. *This window appears:*

*The underlined setting is the default setting.*

<< INFORMATION SET UP >>	
PHONE NUMBER:	
_____	
DIAL MODE:	TONE
[ LOG-IN DATA:	NONE ]
BIT PER SECOND:	2400
PARITY:	<u>EVEN</u>
DATA BITS:	7
STOP BITS:	1
XON/XOFF CONTROL:	ON
SIGNAL LINE CONTROL:	NONE
LOCAL ECHO:	OFF
AUTO LINEFEED:	ON
AUTO LINEFEED (SEND):	ON
Type telephone number and press RETURN.	

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired parameter. Enter the telephone number which you want to access or use **SPACE BAR** to select the setting.
  - **PHONE NUMBER:** The phone number which you want to access. Up to 40 numerals or characters can be input.
  - **DIAL MODE : TONE** For push-button phone.  
**DIAL MODE : PULSE** For rotary dial phone.
  - **LOG-IN DATA:** For indicating whether log-in data exists. This item cannot be set up.
  - **BIT PER SECOND (BAUD RATE) (300/600/1200/2400/4800/9600:** This parameter determines the transmission speed in bits per second.
  - **PARITY (NO, ODD, EVEN, SPACE, MARK):** This parameter determines how the bits of each character are checked for transmission errors. This machine does not perform SPACE & MARK parity checks during reception.

**NO:** No parity bit is added to the characters.

**EVEN:** The system counts the number of nonzero bits in a character. If this number is even, the parity bit is set to zero; if odd, the parity bit is set to one. This way, all “words” (character + parity bit) will have an even number of nonzero bits. The receiving unit must have the same parity setting and expects to receive only words with an even number of nonzero bits. When this number is odd, the receiving machine knows that something is wrong (for example, one bit has been spoiled by noise on the line).

**ODD:** This is opposite of the EVEN parity. A parity bit is set so that the total number of nonzero bits is odd.

**SPACE** (Possible only when DATA BITS=7): The parity bit is always zero.

**MARK** (Possible only when DATA BITS=7): The parity bit is always one.

- **DATA BITS (Z,8):** This determines how many bits are necessary to encode the characters. Standard ASCII characters use seven bits. Accented letters and other special characters need eight bits.
- **STOP BITS (1,2):** Each word must be separated from the next one with a special bit called a “stop bit”. This parameter specifies the length of stop bit (1=single, 2=double).
- **XON/XOFF CONTROL (ON, OFF):** This parameter determines whether or not to allow flow control by the X parameter. If this control is allowed, an XOFF code (13hex) will be transmitted by the receiving machine when the free area in the reception buffer is less than 25%. As the data is processed and removed from the buffer, the free area increases. When the free area becomes greater than 75%, the receiving machine sends an XON code (11hex) that allows the other machine to resume data transmission. When the transmitting machine receives an XOFF code, it enters a state in which it can transmit only XON/XOFF codes. This state is terminated upon reception of an XON code. Regardless of the flow control method, the data transmission is possible only when the control signal lines DSR and CTS are active.
- **SIGNAL LINE CONTROL (NONE, DTR):** This parameter determines whether or not to allow flow control by the control line DTR. The DTR line will allow transmission only when active.
- **LOCAL ECHO (ON, OFF):** When local echo is on, transmitted data is displayed on your screen.
- **AUTO LINEFEED (ON, OFF):** This parameter determines the effect a received carriage return code (0Dhex) on the cursor. If this selection is ON, a carriage return will automatically add a line feed. Set Auto Linefeed to OFF if the received data is displayed with double line spacing. Set it to ON if the received data is displayed on the same line and is overwriting the previous message.
- **AUTO LINEFEED (SEND) (ON, OFF):** This parameter determines what is transmitted when you press the **RETURN** key.

If you press **RETURN** without pressing any key, it will return to the Communication screen directly.

Pressed key	AUTO LINEFEED ON	AUTO LINEFEED OFF
<b>RETURN</b>	CR, LF	CR
<b>CODE + RETURN</b>	CR	CR, LF

If the information that was set up in the CompuServe function or the Dial function is stored in memory, it will be automatically incorporated in the New Set Up function.

On the other hand, the information entered in the New Set Up function will be incorporated in the Dial function. This may change any previous settings you have set in the Dial function.

- Press **RETURN** to finish setting up. *This window appears:*

```

Save this information?
Use cursor to select and press RETURN.
[YES]                               [NO]
  
```

- Select **YES** to save the set up information (telephone number and communication parameters) onto a diskette or **NO** to return to the Communication screen without saving. *If you select YES, this window appears.*

```

<< SAVE FILE >>

FILENAME: █ .CPF

Existing File(s)

$$COMPUS.CPF      AAAA .CPF
GG .CPF

Type filename and press RETURN.
Press ↑, ↓ to scroll file directory.
  
```

- Enter the file name and then press **RETURN**. *The Communication screen appears after saving the file.*

## Open File

This function allows you to load a communication parameter file on a diskette.

- Press **MENU** and select **File**; then select Open File from the function menu. (Short cut: **CODE + O**) *The communication file list appears.*

```

[CPF] Communi
-cation

*NEWFILE      $$COMPUS.CPF      AAAA .CPF
GG .CPF
  
```

If you have not saved a parameter file when selecting Open File, this window appears:

Change current setting?	
Use cursor to select and press RETURN.	
[YES]	[NO]

2. Select **YES** to display the communication file list or **NO** to stop this function and return to the previous screen.
3. Select the file which you want to load and press **RETURN**. The parameter settings in the selected file will be loaded. If a telephone number is entered in the selected file, the window below appears.

OK to execute auto dial/auto log-in?	
Use cursor to select and press RETURN.	
[YES]	[NO]

4. Select **YES** to execute auto dial and then to execute auto log-in if log-in data exists. Select **NO** to return to the Communication screen without executing auto dial and auto log-in.

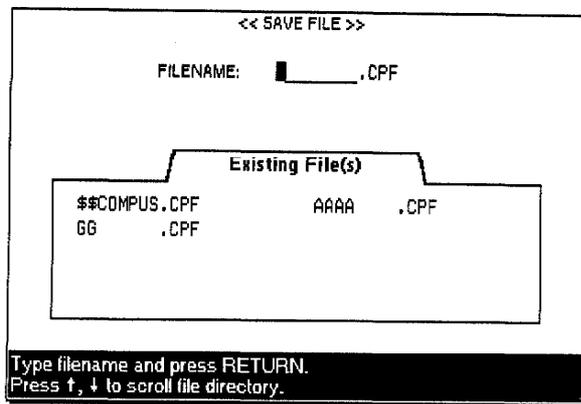
## Save File

This function allows you to save the parameter settings to a diskette.

1. Press **MENU** and select **File**; then select Save File from the function menu. (Short cut: **CODE + S**) The window below appears and displays the parameter settings which are currently stored in memory:

<< INFORMATION >>	
Save this information?	
PHONE NUMBER:	123-4567
DIAL MODE:	PULSE
	[ LOG-IN DATA: NONE ]
BIT PER SECOND:	2400
PARITY:	EVEN
DATA BITS:	7
STOP BITS:	1
XONXOFF CONTROL:	ON
SIGNAL LINE CONTROL:	NONE
LOCAL ECHO:	OFF
AUTO LINEFEED:	ON
AUTO LINEFEED (SEND):	ON
Use cursor to select and press RETURN.	
[YES]	[NO]

If **YES** is selected, the following window appears. If **NO** is selected, the previous screen appears:

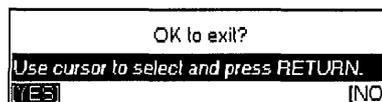


2. Enter the file name and press **RETURN** to save the parameter file.

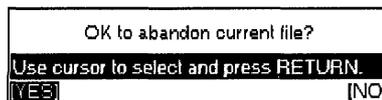
## Quit

This function allows you to return to the Main Menu.

1. Press **MENU** and select **File**; then select **Quit** from the function menu. *If the telephone line has not been connected or if a parameter setting has not been changed, the Main Menu will appear. The window below appears if the telephone line is connected.*

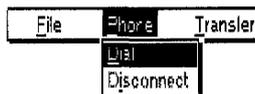


2. Select **YES** to exit from the Communication function and return to the Main Menu, or select **NO** to return to the Communication screen. *The window below appears if a parameter setting is changed and is not saved yet:*



3. Select **YES** to exit from the Communication function and return to the Main Menu. *If NO is selected, the Communication screen appears.*

## Phone Functions



Use the phone functions from the function menu to dial or disconnect communication.

**Dial:** For setting up the phone number, dialing the number, or recording the auto log-in data.

**Disconnect:** To stop communication.

## Dial

This function allows you to set up a phone number which you want to access, dial the number, or record auto log-in data.

1. Press **MENU** and select **Phone**; then select **Dial** from the function menu.  
(Short cut: **CODE + D**) *This window appears.*

<< PHONE NUMBER >>	
<input type="text"/>	
DIAL MODE:	TONE
RECORD LOG-IN DATA:	OFF
Type telephone number and press RETURN to execute.	

2. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Type the telephone number which you want to access or use **SPACE BAR** to select the setting.
  - **PHONE NUMBER:** The phone number which you want to access. Up to 40 numerals or characters can be input.
  - **DIAL MODE : TONE** For push-button phone.  
**DIAL MODE : PULSE** For dial phone.
  - **RECORD LOG-IN DATA : OFF** No log-in data required.  
**RECORD LOG-IN DATA : ON** To record the log-in data so your next dialing will be automatic.
3. Press **RETURN** to dial. *The Communication screen appears and the machine will automatically dial the phone number. While sending the data, the screen below is displayed.*

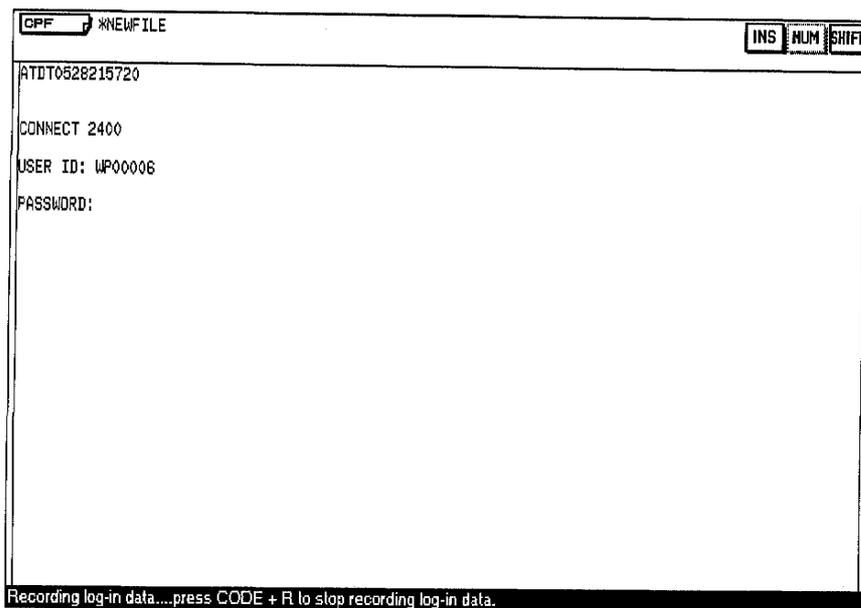
CPE	NEWFILE	OVER	NUM	SHIFT
ATDT052821570				
Sending dial command string. Press CANCEL to abort.				

## Auto Log-In

The first time you dial you must enter the log-in data manually. However, the log-in data can be recorded automatically by selecting ON from the RECORD LOG-IN DATA setting. The next time you dial the same number the auto log-in is carried out automatically.

### Recording Auto Log-In

1. If **RETURN** is pressed on the Dial screen, the Communication screen appears and the machine will automatically dial the phone number. If *Record Log-in Data is set to ON, it starts recording log-in data as shown below.*

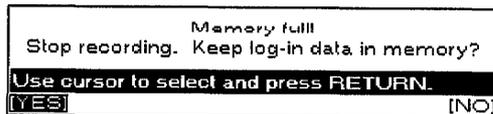


The screenshot shows a terminal window with a title bar containing 'CPF' and '\*NEWFILE'. On the right side of the title bar are three buttons: 'INS', 'NUM', and 'SHIFT'. The main area of the window displays the following text:  
ATDT0528215720  
CONNECT 2400  
USER ID: WP00006  
PASSWORD:  
The bottom of the window has a black bar with white text that reads: 'Recording log-in data....press CODE + R to stop recording log-in data.'

*The log-in data cannot be edited in the same way as other data. To change the log-in data, you must restart the recording procedure for new data.*

*Auto log-in data, which is recorded in memory, will be valid until exiting from the COMMUNICATION mode. If you want to keep the auto log-in data permanently, please save it onto a diskette.*

2. Press **CODE + R** to record the log-in data in memory. *If log-in data is already recorded, it is deleted by pressing **CODE + R** and new log-in data is recorded. If the log-in data exceeds the memory capacity, recording is stopped, and the window below appears.*



The dialog box has a title bar that says 'Memory full'. The main text reads: 'Stop recording. Keep log-in data in memory?' Below this text is a line that says 'Use cursor to select and press RETURN.' At the bottom left is a button labeled '[YES]' and at the bottom right is a button labeled '[NO]'.

3. Press **YES** to enter the log-in data which is already recorded into memory and then return to the Communication screen. Press **NO** to delete it and return to the Communication screen.

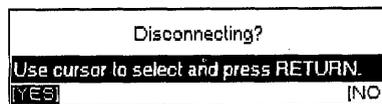
## Executing Auto Log-In

1. If **RETURN** is pressed when log-in data is recorded in memory and Record Log-in Data is set to OFF on the Dial screen, dialing is automatically executed.
2. Auto log-in will be executed after connection.

## Disconnect

This function allows you to disconnect communication.

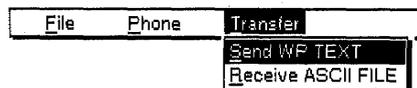
1. During communicating, press **MENU** and select **Phone**; then select Disconnect from the function menu. *This window appears:*



2. Press **YES** to disconnect communication and return to the Communication screen. Press **NO** to cancel and return to the previous screen.

## Transfer Functions

Use the transfer functions from the Function menu to transmit Word Processing text or receive an ASCII file.



**Send WP TEXT:** to convert Word Processing text to an ASCII file and transmit it.

**Receive ASCII FILE:** to receive an ASCII file, convert it to Word Processing text, and save it to a diskette.

## Send WP Text

This function allows you to transmit Word Processing text after transferring to ASCII without protocol.

1. Press **MENU** and select **Transfer**; then select Send WP Text from the function menu. *This window and guide message appears:*

The following information cannot be transmitted in ASCII. For more detail about converting to ASCII, please refer to Convert in Chapter 9 File Management.

-Font & Size

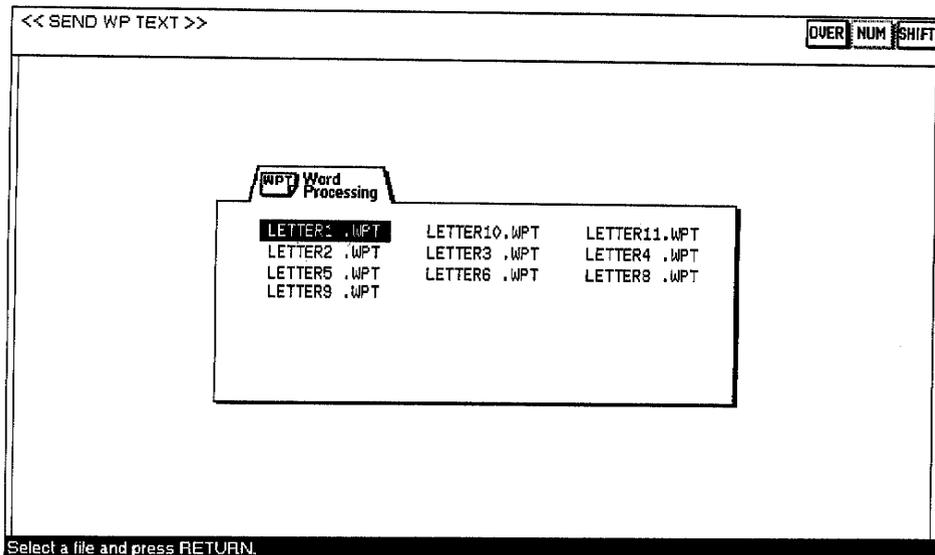
-Type Style

-Header/Footer

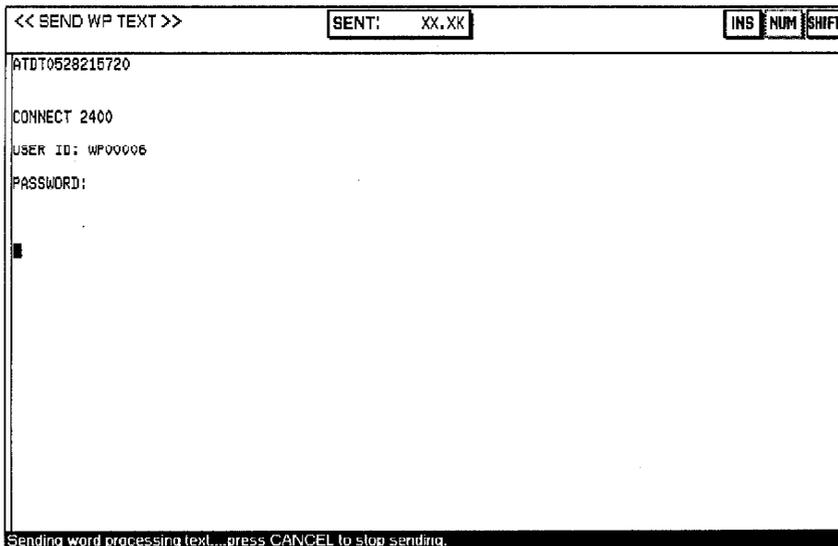
-Merge code

-Line Format (E / Q / L)

-Left Margin/Right Margin



2. Select a word processing text file which you want to send and press **RETURN**. The guide message appears during sending.



When sending is completed, a buzzer will sound and the guide message as below appears.

Completed.

3. Press any key to return to the Communication screen.

## Receive ASCII FILE

This function allows you to receive ASCII data and save it as Word Processing text to a diskette.

1. Press **MENU** and select **Transfer**; then select **Receive ASCII FILE** from the function menu. *You will start receiving the file and the received data displays as below.*

<< RECEIVE ASCII FILE >>	RECEIVED: XX.XX	FREE AREA: XX.XX	OVER	NUM	SHIFT
CONNECT 2400					
June 15, 19XX					
Mr. Richard H. Unimant Branch Manager Andrews Copy Service 412 Sandiego Drive Wonderland, New Jersey 09020					
Dear Mr. Unimant:					
We do not plan to renew our contract for the use of a Copier 14X40 copying machine. The contract expires June 20, 19XX					
the copying machine is located at our downtown office in Melrose. We would like to have the machine removed at your earliest possible convenience.					
Sincerely,					
Phlange A. Indelible					
Receiving ASCII file...press CANCEL to stop receiving.					

If **CANCEL** is pressed during receiving, the window below appears:

Save received file?	
Use cursor to select and press RETURN.	
[YES]	[NO] [CANCEL]

Select **YES** to save the file which is already received.

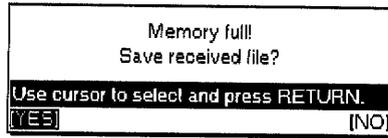
Select **CANCEL** or press **CANCEL** to restart receiving.

If **NO** is selected, the window below appears.

OK to abandon received file?	
Use cursor to select and press RETURN.	
[YES]	[NO]

2. Select **YES** to abandon the file. Select **NO** or press **CANCEL** to restart receiving.

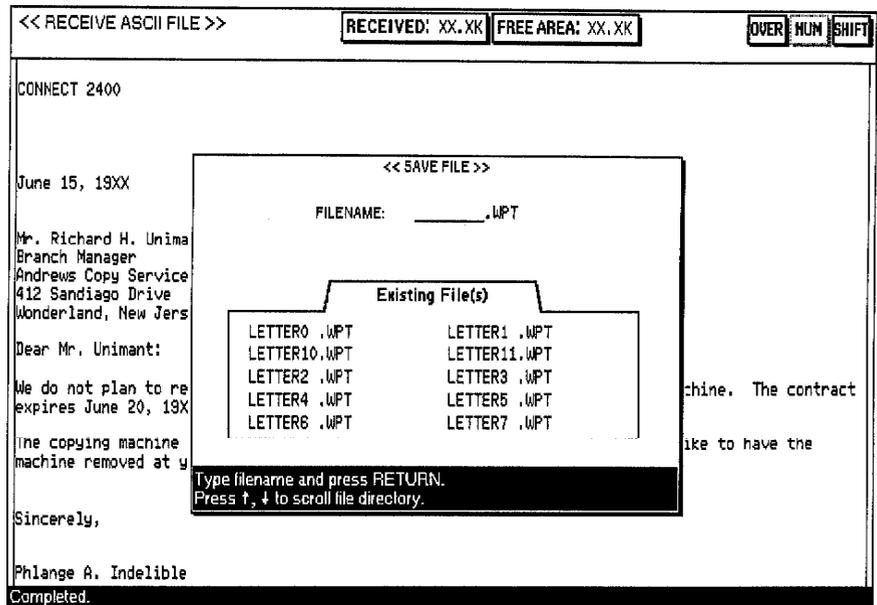
If memory becomes full during receiving, the window below appears.



Select **YES** to save the file which is already received.

If **NO** is selected or **CANCEL** is pressed, the same window as the above note when selecting **NO** appears.

3. When receiving 1A HEX which means the end of the ASCII data, a buzzer sounds and the window below appears:



If **CANCEL** is pressed on the above screen, the file is abandoned and the guide line appears.

Canceled.

Press any key to return to the Communication screen.

4. Type the file name and press **RETURN** to save the file onto a diskette and to return to the Communication screen.

The received ASCII file is automatically converted to Word Processing text based on the following conditions.

- Font Type/Size: Brougham/10 point
- Line Space: AUTO 1
- Left Margin: 1.0
- Right Margin: 7.7
- Tab: every 8 columns each from left margin
- Auto/Just: AUTO
- Page Set Up: default setting
- Print Menu: default setting

If memory becomes full by converting ASCII file to Word Processing text while saving, the file is saved as much as possible and the message below appears.

Convert resulted in data loss.

# Character Code Table

Code on grey background are ASCII controls. They can be inputted from the keyboard and transmitted in Communication mode. See "Transmitting Control Codes" on page 200 for a list of input keys. Code 15HEX(NAK) transmits the character.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0			0	@	P	`	p	Ç	É	á					α	≡
1		!	1	A	Q	a	q	ü	œ	í					β	±
2		"	2	B	R	b	r	é	Æ	ó					Γ	
3		#	3	C	S	c	s	â	ô	ú					π	
4		\$	4	D	T	d	t	ä	ö	ñ					Σ	
5		%	5	E	U	e	u	à	ò	Ñ					σ	
6		&	6	F	V	f	v	å	û	ª					μ	÷
7		'	7	G	W	g	w	ç	ù	º					τ	
8		(	8	H	X	h	x	ê	ÿ	¿					Φ	°
9		)	9	I	Y	i	y	ë	Ö						Θ	
A		*	:	J	Z	j	z	è	Ü						Ω	•
B		+	;	K	[	k	{	ï	ø	½					δ	√
C		,	<	L	\	l		î	£	¼					∞	
D		-	=	M	]	m	}	ì	¥	ì					φ	²
E		.	>	N	^	n	~	Ä	Pt	«					ε	
F		/	?	O	_	o		Å	f	»						

## Transmitting Control Codes

The following keys can be used in the terminal mode to transit ASCII control codes.

KEYS	CODE	ASCII Control Name (Hexadecimal)
CODE + SHIFT + 0	00	NUL
CODE + SHIFT + A	01	SOH
CODE + SHIFT + B	02	STX
CODE + SHIFT + C	03	ETX
CODE + SHIFT + D	04	EOT
CODE + SHIFT + E	05	ENQ
CODE + SHIFT + F	06	ACK
CODE + SHIFT + G	07	BEL
CODE + SHIFT + H	08	BS
CODE + SHIFT + I	09	HT
CODE + SHIFT + J	0A	LF
CODE + SHIFT + K	0B	VT
CODE + SHIFT + L	0C	FF
CODE + SHIFT + M	0D	CR
CODE + SHIFT + N	0E	SO
CODE + SHIFT + O	0F	SI
CODE + SHIFT + P	10	DLE
CODE + SHIFT + Q	11	DC1(XON)
CODE + SHIFT + R	12	DC2
CODE + SHIFT + S	13	DC3(XOFF)
CODE + SHIFT + T	14	DC4
CODE + SHIFT + U	15	NAK
CODE + SHIFT + V	16	SYN
CODE + SHIFT + W	17	ETB
CODE + SHIFT + X	18	CAN
CODE + SHIFT + Y	19	EM
CODE + SHIFT + Z	1A	SUB
CODE + SHIFT + 1	1B	ESC
CODE + SHIFT + 2	1C	FS
CODE + SHIFT + 3	1D	GS
CODE + SHIFT + 4	1E	RS
CODE + SHIFT + 5	1F	US

KEY	CODE	ASCII Control Name (Hexadecimal)
BACK SPACE	08	BS
TAB	09	HT
SPACE BAR	20	SPACE
CODE + BACK SPACE	7F	DEL
RETURN	AUTO LF (SEND)ON: 0D + 0A	CR + LF
	AUTO LF (SEND)OFF: 0D	CR
CODE + RETURN	AUTO LF (SEND)ON: 0D	CR
	AUTO LF (SEND)OFF: 0D + 0A	CR + LF

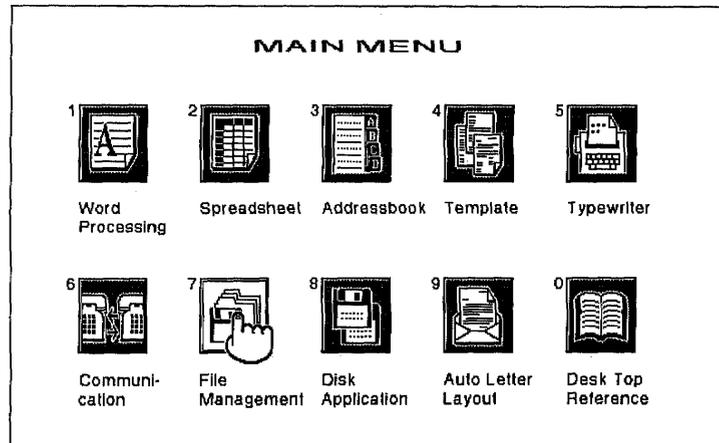


# 8 File Management

The File Management application allows you to organize and convert your files on a diskette. The index screen of the File Management application displays the list of all files.

All operations, except disk copy, can be started from the function menu.

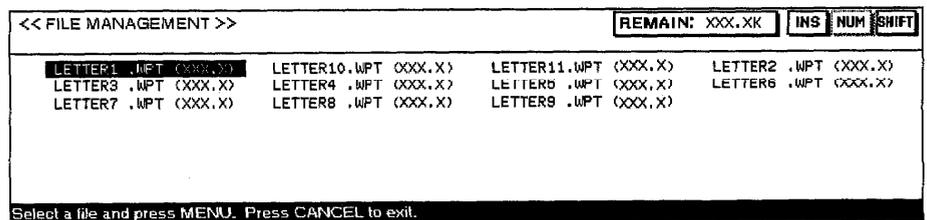
## Starting the File Management Application



1. Switch the power on to display the Main Menu.
2. Insert a diskette into the drive.
3. Press **7** or use the cursor keys to highlight the **File Management** icon and press **RETURN**.

*Please note that only MS-DOS formatted 1.44M MF-2HD and 720K MF-2DD diskettes can be used on your Brother machine.*

*If you get a message indicating that you have an unformatted or damaged disk, either replace the diskette with another one or go to page 21 in Getting Started or to page 185 in this chapter for the procedures on how to initialize a diskette.*



Type of File	File Name & Extension
Word Processing	ANYNAME.WPT
Word Processing Templates	ANYNAME.WP1
Spreadsheet	ANYNAME.SPR
Spreadsheet Templates	ANYNAME.SP1
Addressbook	ANYNAME.MRG
Addressbook Templates	ANYNAME.MR1
Communication	ANYNAME.CPF
Image	ANYNAME.BIM
User Dictionary	SPELLUSR.DCT
Abbreviated Phrase	ABBR.PHR
ASCII	ANYNAME.TXT
Lotus® 1-2-3®	ANYNAME.WK1

*You can move the cursor to the file you want to select quickly by pressing the first character key of the file name.*

*For example, if you press **C**, the cursor will move to the file whose name is starting from "C" character.*

*Your machine can only search the Word Processing file when the cursor is located at the extension "WPT". If you want to search the Spreadsheet file or Addressbook file, press **TAB**, the cursor moves to the next extension.*

The list of the files stored on the diskette appears in the order shown in the table above. The file names are sorted alphabetically for each of those classes. The number following each file name gives the size of the file in kilobytes.

When using Brother Word Processor files in a personal computer and vice versa, you need to remember the following points:

- Your Brother system can only read and write from the root directory of a diskette. **Do not create any directories on the diskette.**
- When creating or renaming a file with your personal computer, make sure that you use the proper file name extensions. There are two major errors in working with extensions that you must avoid.
  1. The first error is to change the file name extension of a file that has been created on your Brother word processor. For example, if you use your personal computer to change the extension ".WPT" to ".WP", your Brother word processor will not recognize the file and will not display it on the index or the File Management screens.
  2. The second error is to create a file in a format that cannot be recognized by your Brother word processor and give it one of the above file name extensions. If you use your personal computer to create, say a graphic file, then give that file the file name extension WPT. The file appears on the index and File Management screens, but your Brother word processor will not be able to open or convert the file.

# Making a Backup Copy of a Diskette

The disk copy function is used to copy all the information contained on a diskette to another diskette (back up copy). This function does not appear on the function menu.



## CAUTION

**Copying an entire diskette to another destroys any data that may be on the destination diskette. Check the destination diskette before starting. Make sure your destination diskette has been initialized.**

*Executing disk copy will delete the data in Clip Board.*

*This disk copy function can be used only between diskettes which are formatted to the same size and have the same format. You cannot use disk copy to copy from a 1.44MB diskette to a 720K diskette or vice versa.*

1. Press **CODE + SHIFT + O**. *This message appears:*

Insert source disk and press RETURN.

2. Insert the source (original) diskette and press **RETURN**. *The word processor will start reading files from the source diskette. Since the memory space is limited, the word processor may not be able to read the diskette at one time. In the case of a diskette containing a lot of information, after reading the first portion, this message appears:*

Insert destination disk and press RETURN.

3. Insert the destination diskette and press **RETURN**. The word processor transfers the files that have been read from the source diskette onto the destination diskette. If all the files of the source diskette have not been transferred yet, the word processor asks you to reinsert the source diskette.
4. Repeat steps 2 and 3 until all files have been transferred to the destination diskette. You may need to swap these diskettes a number of times before all of the files are copied to the destination diskette. The word processor "knows" which diskette is the source diskette and which one is the destination diskette. *If you mistakenly insert a wrong diskette, this message appears:*

Incorrect disk!  
Press any key to continue.

Insert the correct diskette and press **RETURN**.

*When the operation is completed, this message appears:*

Disk copying completed.

# File Functions



Use the File functions from the function menu to copy, delete, and rename files.

**File Copy:** Copies a file.

**File Delete:** Deletes files.

**Rename:** Changes the name of a file.

**Return to Main Menu:** Returns to the Main Menu.

## File Copy

This function is used to copy a file. You may copy to the same diskette or to a different diskette. If the destination diskette is the same as the source diskette, the file name must be different.

1. Move the cursor to the file name that you want to copy. Press **MENU** and select **File**; then select File Copy from the function menu. (Short cut: **CODE + C**) This message appears:

Insert destination disk and press RETURN.

2. To copy the file on the same diskette, press **RETURN**.

OR

To copy the file to another diskette, insert that diskette in the drive and press **RETURN**. The **FILE COPY** window appears:

```
<< FILE COPY >>
ORIGINAL FILENAME:  LETTER1 .WPT
TARGET FILENAME:   LETTER1 .WPT

Existing File(s)
LETTER1 .WPT (XXX.X)  LETTER10.WPT (XXX.X)
LETTER11.WPT (XXX.X) LETTER2 .WPT (XXX.X)
LETTER3 .WPT (XXX.X) LETTER4 .WPT (XXX.X)
LETTER5 .WPT (XXX.X) LETTER6 .WPT (XXX.X)
LETTER7 .WPT (XXX.X) LETTER8 .WPT (XXX.X)

Type filename and press RETURN.
Press ↑, ↓ to scroll file directory.
```

This window shows the files of the destination diskette that are of the same kind as the source file. The window also provides an entry field to type the name of the target file. As soon as you type the first letter of the file name, a list appears, starting with the file that is alphabetically closest to that letter, and it will automatically scroll to make sure that you do not enter an existing file name. When you want to see another file name, scroll manually using **CURSOR UP** or **CURSOR DOWN**.

3. Type a file name that is not in use on the destination diskette and press **RETURN** to copy the file.

## File Delete

This function is used to delete files from a diskette.

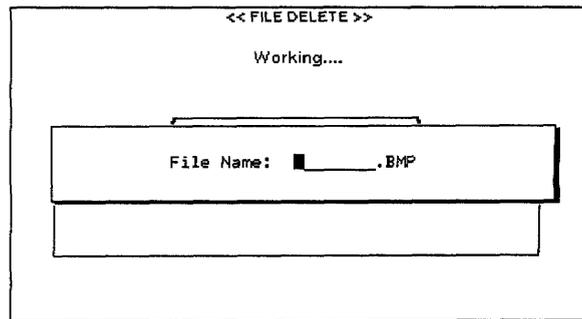
1. Move the cursor to the file name which you want to delete. Press **MENU** and select **File** then File Delete from the function menu. (Short cut: **CODE + D**) The check mark appears at the left of the file name. This message appears:

Press SPACE to select file(s) and press RETURN.

2. Use the cursor keys to highlight a file name and **SPACE BAR** to turn a check mark on/off to the left of the file name. Repeat this operation to mark all files to be deleted, and then press **RETURN**. This message appears:

OK to delete the selected file(s)?  
Use cursor to select and press RETURN.  
[YES] [NO]

3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select YES to delete or NO to exit, and press **RETURN**. As files are being deleted, their file name is displayed. If you press **CANCEL** while a file is being deleted, that file will still be deleted; however, files that were indicated for deletion, but have not yet been deleted when you pressed **CANCEL** will not be deleted.



## Rename

This function is used to change the name of a file on the current diskette.

1. Move the cursor to the file name that you want to rename. Press **MENU** and select **File**; then select **Rename** from the function menu (Short cut: **CODE + R**). The **RENAME** window appears:

```

<<RENAME>>

ORIGINAL FILENAME:  LETTER11.WPT
NEW FILENAME:      LETTER1.WPT

Existing File(s)
-----
LETTER11.WPT (XXX.X)  LETTER2 .WPT (XXX.X)
LETTER3 .WPT (XXX.X)  LETTER4 .WPT (XXX.X)
LETTER5 .WPT (XXX.X)  LETTER6 .WPT (XXX.X)
LETTER7 .WPT (XXX.X)  LETTER8 .WPT (XXX.X)
LETTER9 .WPT (XXX.X)

Type filename and press RETURN.
Press ↑, ↓ to scroll file directory.

```

This window shows the files of the current diskette that are of the same kind as the selected file. The window also provides an entry field to type the new file name. When the first letter of the file name is entered, a list appears starting with the file that is alphabetically closest to that letter and it will automatically scroll to make sure that you do not enter an existing file name. When you want to see another file name, scroll using **CURSOR UP** or **CURSOR DOWN**.

2. Type a file name that is not in use on the current diskette and press **RETURN** to rename the file.

## ***Return to Main Menu***

Press **MENU** and select **File**; then select **Return to Main Menu** from the function menu (Short cut: **CANCEL**). This will terminate the File Management application and display the Main Menu.

# Disk Functions



Use the Disk functions from the function menu to initialize diskettes and to update the index.

**Delete All:** Deletes all unprotected files on diskette.

**Initialize Disk:** Initializes a diskette.

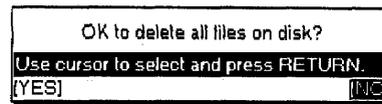
**Directory Read:** Reads the directory of a diskette when this has not been done automatically.

## Delete All (Diskette Delete)

All unprotected files on the root directory are deleted with this function. This includes unprotected files created on a PC that do not appear on the index.

This function is used to delete all unprotected files from a diskette.

1. Press **MENU** and select **Disk**; then select Delete All from the function menu. *This message appears:*



2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select YES to delete or NO to exit. Then press **RETURN**.

## Initialize Disk



Your Brother Word Processor can use both MF-2HD and MF-2DD floppy diskettes, though the MF-2DD have half the capacity of the MF-2HD.

Whenever you use a diskette, the File Management application checks its format. It can recognize a new diskette or a diskette that is not formatted to DOS 1.44M or DOS 720K. If the diskette is new, a prompt will appear asking if you wish to initialize. Select YES to initialize the diskette (all contents will be deleted).

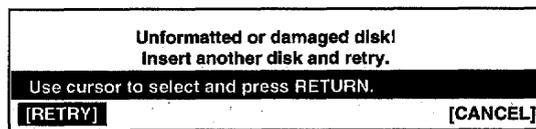
### CAUTION

**Executing Initialize Disk will delete all the data on the diskette.**

A new diskette must always be formatted (initialized) before you try to use it. You can also reformat a diskette that already contains data in order to clear all files and subdirectories.

You can format diskettes using either this word processor or a personal computer. If you use a personal computer, be sure to format the diskettes in MS-DOS and 2HD diskettes for 1.44M and 2DD diskettes for 720K.

1. Insert a diskette. *This message appears if the diskette is unformatted or damaged:*



2. Press **CANCEL**.

3. Press **MENU** and select **Disk**; then select Initialize Disk from the function menu. *This message appears:*

```
Do you want to initialize disk?  
All data on disk will be deleted if initialized.  
Use cursor to select and press RETURN.  
[YES]                               [NO]
```

4. Use **CURSOR LEFT** and **CURSOR RIGHT** to select **YES** to initialize or **NO** to exit. Then press **RETURN**.

If you select **NO**, initializing a disk is canceled.

If you select **YES**, this message appears.

```
<<FORMAT TYPE >>  
2HD DISK      1.44MB  
2DD DISK      720KB  
Use cursor to select and press RETURN.
```

Use **CURSOR UP** and **CURSOR DOWN** to select the desired setting and press **RETURN** to start initializing the diskette.

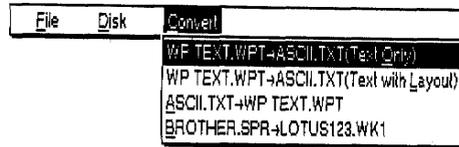
## **Directory Read**

Usually, the directory of a diskette is automatically read each time you insert a new diskette. In some circumstances, however, the directory is not read automatically and you might need to update the index manually.

Press **MENU** and select **Disk**; then select Directory Read from the function menu (Short cut: **CODE + F**). *The message "Working..." appears while the directory is being read.*

# Convert Functions

Use the Convert functions from the function menu to use your Word Processing and Spreadsheet files on a PC or to use ASCII files with your Word Processing application.



**WP TEXT.WPT → ASCII.TXT(Text Only):** Converts a Brother Word Processing file into an ASCII file (all format codes except TAB and RETURN are removed).

**WP TEXT.WPT →ASCII.TXT(Text with Layout):** Converts a Brother Word Processing file into an ASCII file; SPACES and RETURN codes are added in order to preserve the global look of the file.

**ASCII.TXT →WP TEXT.WPT:** Converts an ASCII file into a Brother Word Processing file.

- Conversions to or from ASCII files are carried out according to the IBM PC Code on page 193. For details about code page switching, refer to your DOS manual (DOS command mode device codepage). A table on page 175 shows all characters that can be correctly converted. Characters which are not included in that table are converted into blank spaces.

**BROTHER.SPR →LOTUS123.WK1:** Converts a Brother Spreadsheet file into the Lotus® 1-2-3® format.

- Conversions to or from Lotus® 1-2-3® files are carried out according to LICS (Lotus International Character Set). For details, refer to your Lotus® 1-2-3® manual.

## ***Converting Brother Word Processing Files to a PC Format***

- WP TEXT.WPT → ASCII.TXT(Text Only)
- WP TEXT.WPT →ASCII.TXT(Text with Layout)

You may wish to use the data you create with the Word Processing application on a PC. To do this, you must first convert the Word Processing file into the ASCII format. Once this is done, you will be able to import the ASCII file into most word processing applications available on PCs.

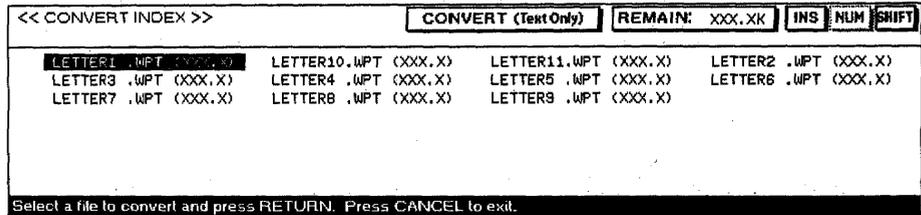
An ASCII (American Standard Code for Information Interchange) file consists of printable data including no special formatting codes for underlining, boldface, etc. These special formatting features, such as underlining, do not translate correctly between your word processor and a computer. Therefore, when a file is converted to ASCII, all special formats are eliminated. Once the file is transferred, the file must be reformatted and any special effects must be added.

An ASCII file can include some formatting codes like carriage returns and tab codes. When you convert a Word Processing file into an ASCII file, you have a choice:

- **Text Only** removes all formatting codes from the file. When you import such a file into a personal computer word processing system, the text will automatically be adapted to the format of the PC word processing program.
- **Text with Layout** preserves some of the format of the file. A carriage return will be added at the end of each screen line.

However, if the margins of your original file are unusually wide, additional carriage returns will be placed into the file and reformatting will be necessary.

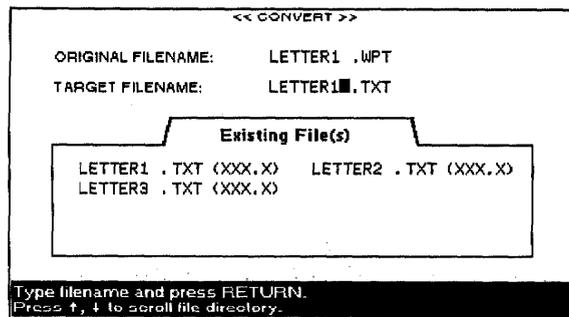
1. Press **MENU** and select **Convert**; then select **WP TEXT.WPT** → **ASCII.TXT** (Text Only) or **WP TEXT.WPT** → **ASCII.TXT** (Text with Layout) from the function menu. *The Convert Index window appears:*



2. The index displays only Word Processing (WPT) files. Use the cursor keys to highlight the file you want to convert and press **RETURN**. *This message appears:*

Insert destination disk and press RETURN.

3. Insert a destination diskette and press **RETURN** or press **RETURN** if you want to store the converted file on the same diskette. *This window appears:*



This window shows the ASCII files (TXT) on the current diskette. The window also provides an entry field to type a new file name. *As soon as you type the first letter of the file name, a list appears starting with the file that is alphabetically closest to that letter and it will automatically scroll to make sure that you do not enter an existing file name.* When you want to see another file name, scroll manually using **CURSOR UP** or **CURSOR DOWN**.

Once a file is in ASCII format, you are able to recall that file into a word processing program on a PC.

4. Type a file name that is not in use on the current diskette and press **RETURN** to convert the file. During conversion, the message "Working..." is displayed. When conversion is completed, the word processor requests you to reinsert the source diskette.
5. To Convert another file, insert the source diskette and continue converting. To return to File Management mode, press **CANCEL**.

## Converting PC Text Files to Brother Word Processing Files

ASCII.TXT → WP TEXT.WPT

You may wish to use text created on a PC with the Brother Word Processing application. To do this, you must first convert the text file from the PC into ASCII format. Most PC word processing software allows you to save a file as an ASCII text file.

You must also remember that your Brother word processor can only use diskettes formatted to DOS 1.44M or DOS 720K. If you plan to move data from a PC to your Brother word processor, you must be sure that the diskette containing the file is formatted to DOS 1.44M or DOS 720K.

You may format your diskettes to DOS 1.44M or DOS 720K on a PC or on your Brother word processor. Your PC manual should list the steps necessary to complete this operation.

The ASCII file must also be stored in the root directory of the diskette and its file name extension must be **TXT**.

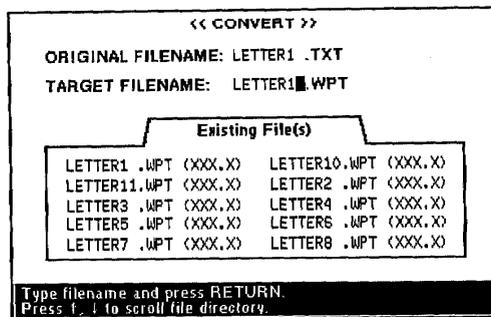
1. Insert the diskette containing the ASCII file into the drive. Press **MENU** and select **Convert**; then select ASCII.TXT → WP TEXT.WPT from the function menu. *The Convert Index appears:*

<< CONVERT INDEX >>			REMAIN: XXX.XK	OVER	NUM	SHIFT
LETTER1 .TXT (XXX.X)	LETTER2 .TXT (XXX.X)	LETTER3 .TXT (XXX.X)				
Select a file to convert and press RETURN. Press CANCEL to exit.						

2. The index displays only ASCII (TXT) files. Use the cursor keys to highlight the file you want to convert and press **RETURN**. *This message appears:*

Insert destination disk and press RETURN.

3. Insert a destination diskette and press **RETURN**. Or press **RETURN** if you want to store the converted file on the same diskette. *This window appears:*



This window shows the Word Processing files (WPT) on the current diskette. The window also provides an entry field to type the new file name. As soon as you type the first letter of the file name, a list appears starting with the file that is alphabetically closest to that letter and it will automatically scroll to make sure that you do not enter an existing file name. When you want to see another file name, scroll manually using **CURSOR UP** or **CURSOR DOWN**.

4. Type a file name that is not in use on the current diskette and press **RETURN** to convert the file. During conversion, the message "Working..." is displayed. When conversion is completed, the word processor asks you to reinsert the source diskette.
5. To **Convert** another file, insert the source diskette and continue conversion. To return to **File Management** mode, press **CANCEL**.

*Once a file is converted to Brother format, you can recall the file for use with the Word Processing application.*

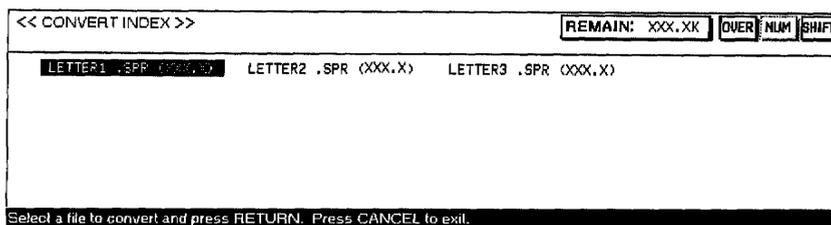
## Converting Spreadsheet Files into Lotus® 1-2-3® Files

BROTHER.SPR → LOTUS123.WK1

You can convert a Spreadsheet file from your word processor to the Lotus® 1-2-3® format in order to use the file on a PC.

Characters of the **SPR** file that do not exist in the Lotus® format are converted into spaces. The conversion of the text is performed according to LICS (Lotus International Character Set).

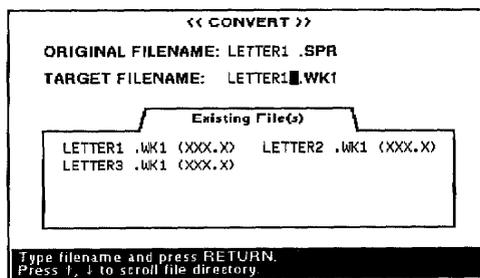
1. Insert the diskette containing the Brother spreadsheet file. Press **MENU** and select **Convert**; then select BROTHER.SPR → LOTUS123.WK1 from the function menu. *The Convert Index appears:*



2. The index displays only Spreadsheet (SPR) files. Use the cursor keys to highlight the file you want to convert and press **RETURN**. *This message appears:*

Insert destination disk and press RETURN.

3. Insert a destination diskette and press **RETURN**. Or press **RETURN** if you want to store the converted file on the same diskette. *This window appears:*



This window shows the Lotus® 1-2-3® files (WK1) on the current diskette. The window also provides an entry field to type a new file name. You can scroll the list to make sure that you do not enter an existing file name.

4. Type a file name that is not in use on the current diskette and press **RETURN** to convert the file. *During conversion, the message "Working..." is displayed. When conversion is completed, the word processor asks you to reinsert the source diskette.*
5. To **Convert** another file, insert the source diskette and continue conversion.  
**OR**  
To return to File Management mode, press **CANCEL**.

## Converting a Lotus® 1-2-3® File into a Spreadsheet File

To use Lotus® 1-2-3® files on your word processor, you do not need any special conversion tool. A Lotus® 1-2-3® file can be opened just like an SPR file using the Spreadsheet application if the following conditions are met:

- The file is stored on the root directory of a DOS 1.44M or DOS 720K diskette.
- The file name extension is WK1.

There is no guarantee that the entire Lotus® 1-2-3® will be correctly converted. The conversion will be incomplete in the following circumstances:

- The Lotus® 1-2-3® file is too large (SPR files hold a maximum of 256 rows x 256 columns). The conversion will be stopped and the following message appears:

Cells extend beyond range.  
Unable to convert!  
Press any key to continue.

- The Lotus® 1-2-3® file size is larger than the maximum spreadsheet file size. The conversion will be stopped and the following message appears:

Not enough memory remaining!  
Press any key to continue.

- A password is set. The conversion will be stopped and the following message appears:

Password is set.  
Unable to convert!  
Press any key to continue.

- There are more than 130 errors. The conversion will be stopped and the following message appears:

Cannot read this file!  
Press any key to continue.

- A cell in a Lotus® 1-2-3® file contains more than 239 characters. In this case, only the first 239 characters of the cell appears in the converted file if the data is alphanumeric. If the data is a formula, it is not converted.
- When a function available with Lotus® 1-2-3® is not recognized or has a slightly different format (e.g. @COS(45\*@PI/180)), it is not converted. Please check the Lotus® 1-2-3® file and make sure that only functions and formats available on your word processor are used.
- Characters of the Lotus® 1-2-3® file that do not exist on your word processor are converted to spaces. The conversion of the text is performed according to LICS (Lotus International Character Set).

# IBM PC Code

The following table shows the printable characters that can be correctly translated when you convert to or from ASCII files on this word processor. Empty cells in this table correspond to control codes or characters that are converted into blank spaces.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0			0	@	P	·	p	ç	É	á					α	≡
1		!	1	A	Q	a	q	ü	æ	í					β	±
2		"	2	B	R	b	r	é	Æ	ó					Γ	
3		#	3	C	S	c	s	â	ô	ú					π	
4		\$	4	D	T	d	t	ä	ö	ñ					Σ	
5		%	5	E	U	e	u	à	ò	N					σ	
6		&	6	F	V	f	v	å	û	ª					μ	÷
7		'	7	G	W	g	w	ç	ù	º					τ	
8		(	8	H	X	h	x	ê	ÿ	¿					Φ	°
9		)	9	I	Y	i	y	ë	Ö						Θ	
A		*	:	J	Z	j	z	è	Ü						Ω	•
B		+	;	K	[	k	{	ï	ø	½					δ	√
C		,	<	L	\	l	l	î	£	¼					∞	
D		-	=	M	]	m	}	ì	¥	ì					φ	²
E		.	>	N	^	n	~	Ä	Pt	«					ε	
F		/	?	O	_	o		Å	f	»						



# 9 Disk Application

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The Disk Application mode allows you to start an application that is not built into the system, but comes on a separate diskette.

Four disk application programs come with your system: Self-Demonstration, Tutorial, Graphic Art Print and Frame Print. These programs are described under "Supplemental programs" on page 28.

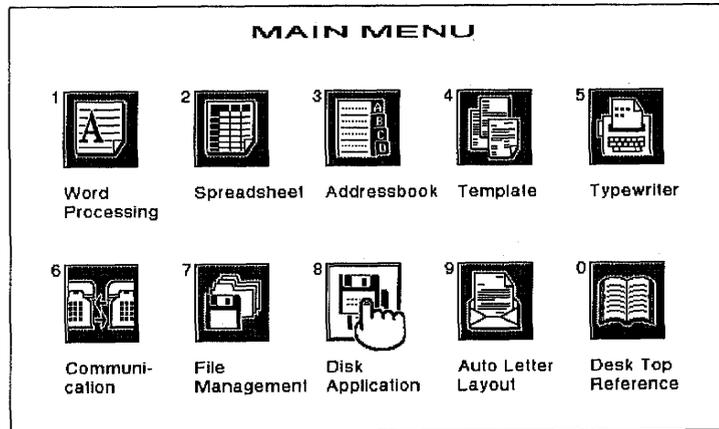
## Using Graphic Art Print (WP-7550J PLUS only)

The Graphic Art Print Software allows you to print 100 graphic art images. These images are stored on one diskette. You can select images from various categories and print them in normal, half or double size.

These graphic images are printed directly onto your paper. They are not saved as part of a word processing file. If you wish to use an image as part of a printing, print the image onto the paper, then reinsert that paper for printing your document. These images allow you to create personalized letterheads, fancy invitations, newsletters, etc.

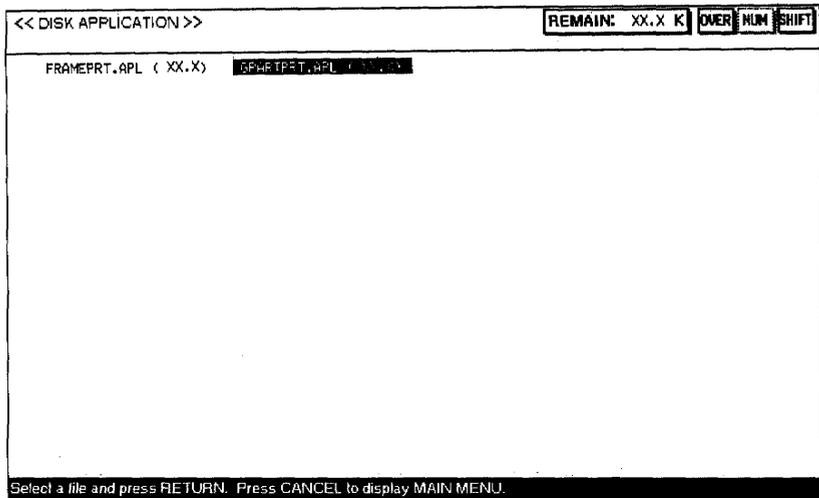
This function is used to print one or more copies of an image onto your paper.

1. Switch the power on to display the Main Menu.

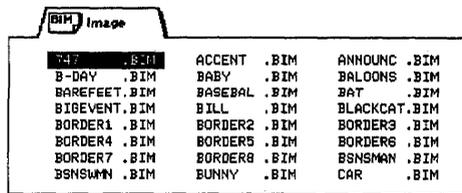


2. Insert the Application diskette into the drive.

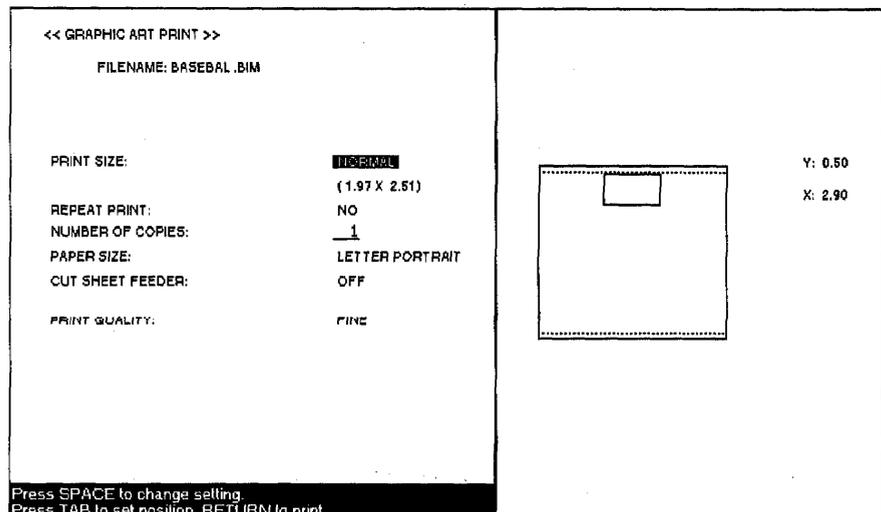
- Press **8, CODE + Q** or use the cursor keys to highlight the Disk Application icon and press **RETURN**. *A list of the programs contained on the diskette appears on the screen:*



- Use the cursor keys to highlight **GRARTPRT.APL** and press **RETURN**. *The Image File List appears.*

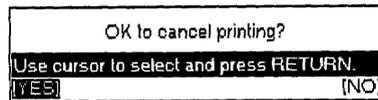


- Use the cursor keys to highlight the image file you want to print and press **RETURN**. *The GRAPHIC ART PRINT screen appears.*





10. You can press **CANCEL** to stop printing. *This window appears:*



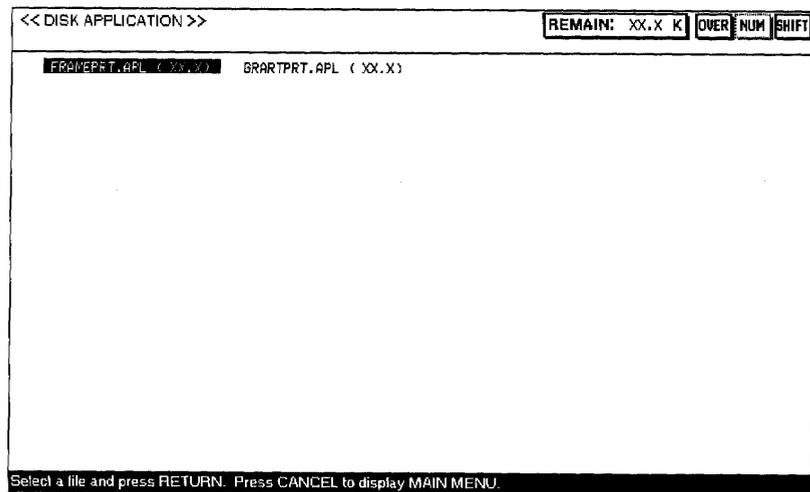
Select **YES** to cancel printing, or **NO** to continue printing.

## Using Frame Print (WP-7550J PLUS only)

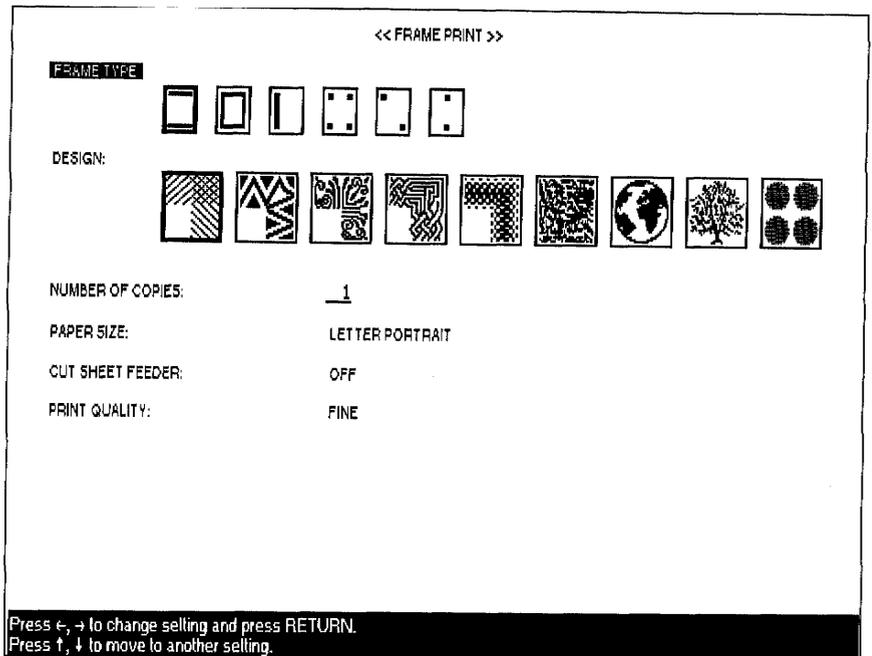
These outer frames are printed directly onto your paper. They are not saved as part of a word processing file. If you wish to use an outer frame in a printing, print the frame onto the paper, then reinsert that paper for printing your document.

This function is used to print the special outer frame in your document.

1. Switch the power on to display the Mfain Menu.
2. Insert the Application diskette into the drive.
3. Press **8**, **CODE + Q** or use the cursor keys to highlight the Disk Application icon and press **RETURN**. *A list of the programs contained on the diskette appears on the screen:*



4. Use the cursor keys to highlight **FRAMEPRT.APL** and press **RETURN**. *The FRAME PRINT screen appears.*



Set **FRAME TYPE**, and then **DESIGN**.

5. Use **CURSOR UP** and **CURSOR DOWN** to move the cursor to the desired setting. Use **CURSOR LEFT**, **CURSOR RIGHT** or press **SPACE BAR** to change settings, or type the desired values.

- **FRAME TYPE** : An icon shows an example of each type of frame.
- **DESIGN** : An icon shows a example of each type of design.
- **NUMBER OF COPIES** : The number of times the paper is to be printed (maximum 999).
- **PAPER SIZE** : The size of paper to be printed.
- **CUT SHEET FEEDER / OFF** : Feed paper without cut sheet feeder.  
**CUT SHEET FEEDER / ON** : Feed paper with cut sheet feeder.
- **PRINT QUALITY / FINE** : For final quality printing.  
**PRINT QUALITY / DRAFT** : For trials. With this setting, you save time and ink.

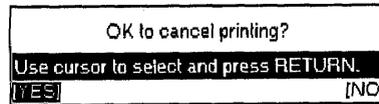
6. Press **RETURN** to enter the settings of the **FRAME PRINT** window. *This message appears:*

Insert paper and press RETURN.

7. Set paper according to the size setting in the **FRAME PRINT** window and press **P INS** to insert the paper. Press **RETURN** to start printing. *This message appears:*

Printing....press CANCEL to stop printing.

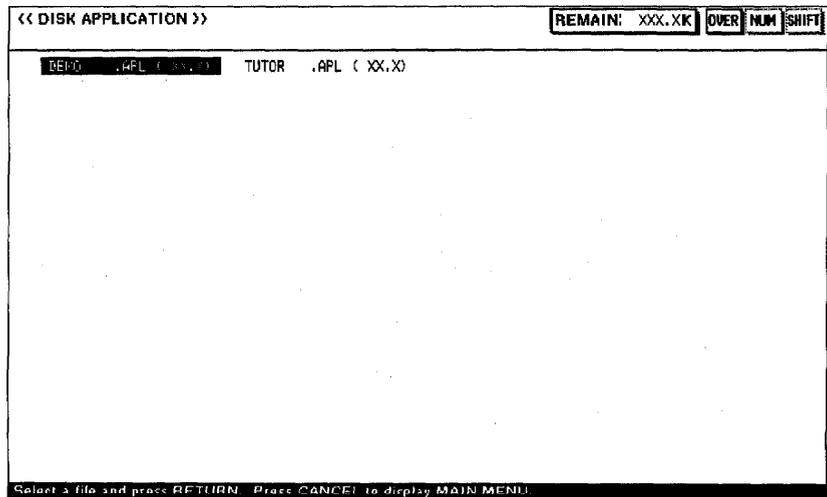
8. You can press **CANCEL** to stop printing. *This window appears:*



Select **YES** to cancel printing, or **NO** to continue printing.

## Tutor/Self Demo

1. Switch the power on to display the Main Menu.
2. Insert an Application diskette into the drive.
3. Press **8**, **CODE + Q** or use the cursor keys to highlight the Disk Application icon and press **RETURN**. *A list of the programs contained on the diskette appears on the screen:*



4. Select the desired application and press **RETURN**. The selected program will start. Proceed according to the instructions displayed on the screen.

# 10 Auto Letter Layout

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The Auto Letter Layout application can automatically apply standard letter formats to an existing Word Processing file. Five different single page letter formats are available:

1. Full Block
2. Block
3. Semi-Block
4. Hanging-Indented
5. Official Style

*Only the first page of a file can be automatically reformatted with the Auto Letter Layout application.*

The Auto Letter Layout application identifies different parts of a single page letter (date, salutation, etc.) and formats these different parts separately. To make sure that the different parts of the letter are correctly identified, you must follow a few rules when typing the letter using the Word Processing application.

## Creating the Letter

---

While creating your letter using the Word Processing application, remember the following procedures:

- Do not use formats like centering, paragraph indent, or right margin flush. These are overwritten by the Auto Letter Layout formats.
- The Auto Letter Layout application will overwrite tab stops. If you need a table in your letter, create the table after you have formatted the letter using the Auto Letter Layout application.

When typing a letter that you want to format using the Auto Letter Layout application, remember that the application is going to apply different formats to different parts of the letter. The application must therefore be able to identify those different parts of the letter. The different parts are identified as follows:

**Date line:** The application will first look for a line containing a fully spelled out month, and identify that line as the date line.

If you have some text before the date line, that text will not be reformatted. To make sure the application finds your date line, spell out the month fully (e.g. April). If you do not spell out the month fully (if you use an abbreviation or a number instead), the application will not be able to identify a date line in your letter and it will not be formatted.

**Address block:** All information found between the date line and the salutation (defined below) will be identified as the address block.

**Salutation line:** The application identifies the salutation line as a line which starts with only "Dear" or "Ladies and Gentlemen."

**Body block:** Everything between the salutation line and the complimentary close (defined below) will be identified as the body of the letter.

**Complimentary close line:** A line of more than 5 and up to 30 characters followed by a comma and return code "↵" will be identified as the complimentary line.

**Signature block:** Everything between the complimentary close line and the identification line (defined below) will be identified as the signature block.

**Identification line:** The identification line is used to identify the person who dictated the letter and the person who typed the letter. The first set of initials identify the letter dictator and the second set of initials identify the letter writer. The Identification Line must contain one set of initials, or two sets of initials separated with a slash "/" or colon ":". Blank spaces are not accepted. Example: KA/mn ↵.

**Enclosure notation:** The enclosure notation block must start with *enclosure(s)*, *enc.(s)*, or *encl.* You can use either lower or upper case letters. Anything between the line starting with those characters and the first line containing only a return symbol will be identified as the enclosure notation. Make a line containing only a return symbol to mark the end of the enclosure notation.

The following illustration shows how you should type the data for your letter.

The diagram illustrates the layout of a letter with the following sections, each enclosed in a box and separated by a small 's' character:

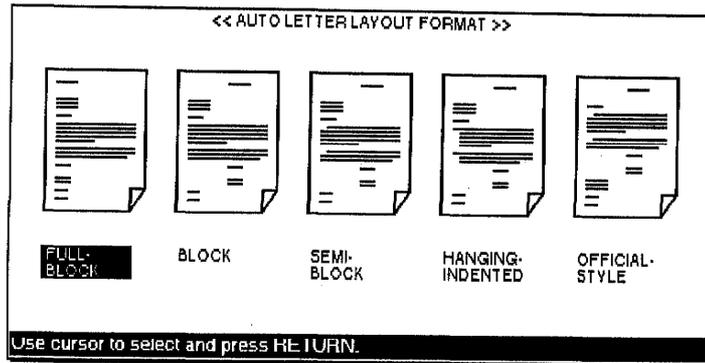
- Dates**
- Inside address**
- Salutations**
- Body**
- Complimentary close (, ↵)**
- Signature**
- Identifications**
- Enclosure notations**

# Applying Auto Letter Layout

The Auto Letter Layout application can be started from the Word Processor or from the Main Menu.

## From the Word Processor Application

1. After typing the text of your letter, press **MENU** and select **Option**; then select Auto Letter Layout from the function menu. *The Auto Letter Layout window appears:*



Five formats are available:

**Full-block:** A single format is used for all parts of the letter. Everything is aligned with the left margin.

**Block:** Everything is aligned with the left margin, except for the date line, complimentary close line, and signature block which are indented to the same position.

**Semi-block:** Same as the block format, but the first line of each body paragraph is indented.

**Hanging-indented:** Same as the block format, but each body paragraph is indented (except the first line which starts from the left margin).

**Official-style:** Same as the semi-block format, but the address block is transferred between the signature block and the identification line.

*After applying a format to a file, you can use the Auto Letter Layout application to apply another format to the file, except after applying Official-style format. This is because the Official-style format moves the address block to a place where it cannot be identified by the machine.*

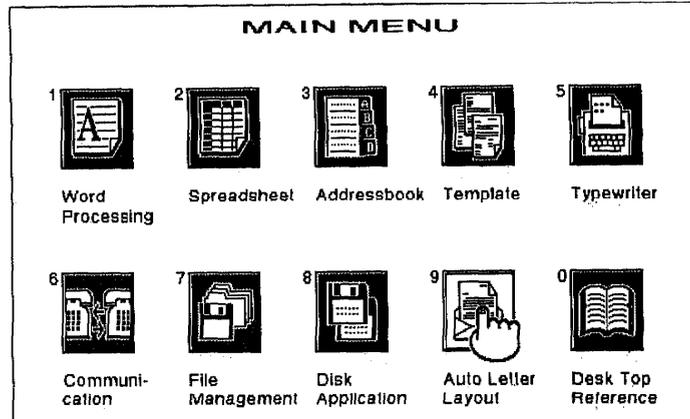
2. Use **CURSOR LEFT** and **CURSOR RIGHT** to select a format and press **RETURN** to start automatic formatting of the file. *This message appears:*

Working....

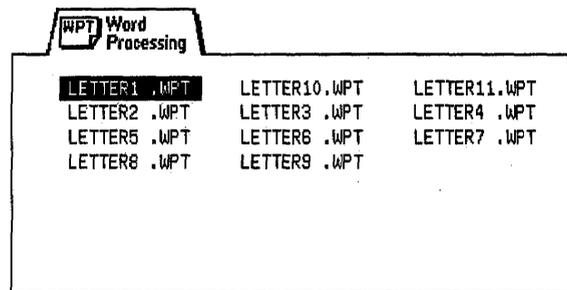
The formatted letter appears on the screen. You can save the letter, print it, or edit it as you would with a normal document.

## From the Main Menu

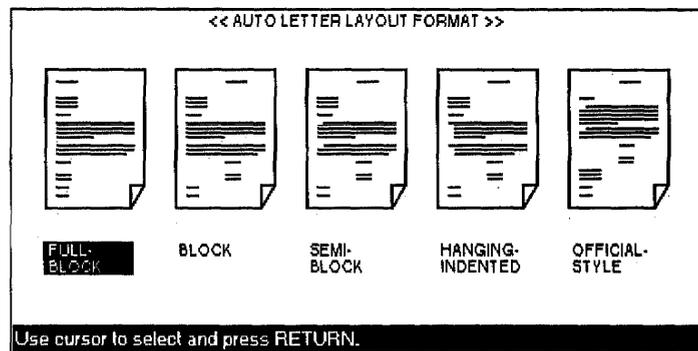
1. Switch the power on to display the Main Menu.



2. Insert the diskette that contains the Word Processing file that you want to format.
3. Press **9** or use the cursor keys to highlight the **Auto Letter Layout** icon and press **RETURN**. *The list of the Word Processing files stored on the diskette appears.*



4. Use the cursor keys to highlight the file you want to format and press **RETURN**. *The AUTO LETTER LAYOUT FORMAT window appears.*



5. Use **CURSOR LEFT** and **CURSOR RIGHT** to select a format and press **RETURN** to start automatic formatting of the file. *This message appears:*

Working....

The formatted letter appears on the screen. You are now in the **Input/Edit** screen of the Word Processing application and you can save the letter, print it, or edit it as you would a normal document.

You can press **CANCEL** instead of **RETURN** to return to the screen you had before starting the application. However, if the application was entered from the Main Menu, you will return to the edit screen of the chosen file.

The Auto Letter Layout application fails in the following cases:

- For all formats: If the application cannot identify a date, salutation, complimentary close line.
- For the Official-style format: If it cannot recognize either the signature or the identification line.
- If you have more than two format marks on the first page of the original file.
- If the first page of the original file contains charts or a table with frame lines.
- If the first page of the original file uses the multi-column format.

When the application fails, this error message appears:

Cannot use AUTO LETTER LAYOUT  
for this file!  
Press any key to continue.



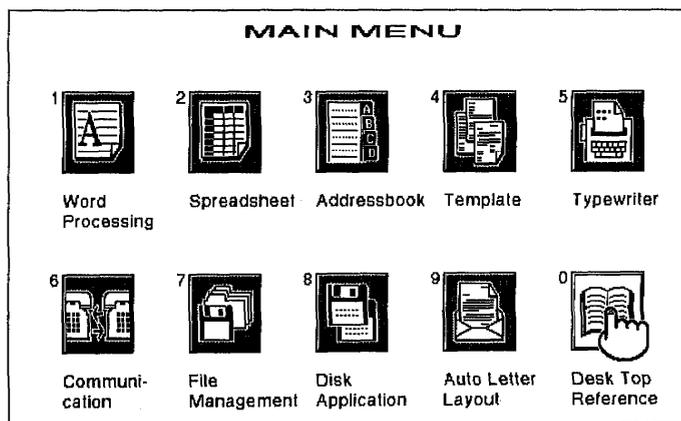
# 11. Desk Top Reference

(WP-7550J PLUS & WP-7550J only)

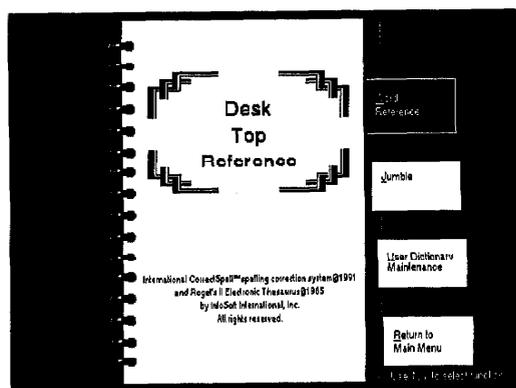
The Desk Top Reference application gives you access to the built-in dictionary or to your user dictionary and provides you with powerful search tools.

## Starting Desk Top Reference

1. Switch the power on to display the Main Menu.



2. Press **0** or use the cursor keys to highlight the Desk Top Reference icon and press **RETURN**. *The Desk Top Reference screen appears.*



3. Use **CURSOR UP** and **CURSOR DOWN** to select one of the functions and press **RETURN**.
  - **Word Reference:** Displays the definition, hyphenation, and synonyms for a specified word.
  - **Jumble:** Gives a list of words made by rearranging the characters of a specified word.

- **User Dictionary Maintenance:** Edits your user dictionaries.
- **Return to Main Menu:** Returns to the Main Menu.

## Word Reference

This function is used to find information about a specified word. The information includes definitions, hyphenation, and synonyms. If the specified word is misspelled or includes a wild card character, a list of possibilities is displayed.

*When you start Word Reference, this screen appears:*

The screenshot shows a spiral-bound notebook-style interface. On the left side, the text 'Word Reference' is written vertically. The main area is divided into four sections:
 

- WORD:** A text entry field with a cursor and a note '\* and ? for WILD CARD' below it.
- < HYPHENATION >**: A box containing a hyphenation template.
- SYNONYM(S):**: A large empty box for listing synonyms.
- MEANING(S):**: A large empty box for displaying definitions.

 The right edge of the notebook has a vertical label 'Word Reference'.

To search for a word, type the word in the entry field **Word** and press **RETURN** to update the display. The information displayed next depends on the specified word.

*If the specified word is correctly spelled, this screen appears.*

This screenshot shows the same interface as the previous one, but with search results for the word 'enclose':
 

- WORD:** The text 'enclose' is entered in the field.
- < HYPHENATION >**: The box now contains 'en-close'.
- SYNONYM(S):**: The box contains a list of synonyms: 'pen', 'shut in', 'fence', 'hen', 'wall', 'coop', 'cage', and 'immure'.
- MEANING(S):**: The box contains three definitions: 'Verb: To confine within a limited area.', 'Verb: To shut in on all sides.', and 'Verb: To surround and advance upon.' Below these is a larger box containing the full definition: 'To confine within a limited area.'

 The vertical labels 'Word Reference' are present on both the left and right sides of the notebook.

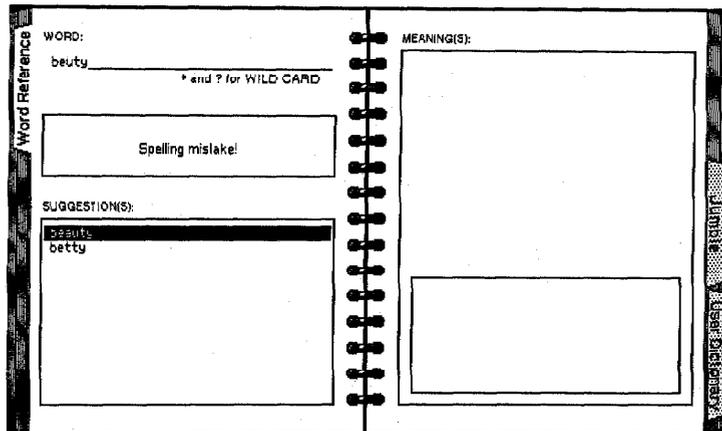
The **Hyphenation** box shows all the possible hyphenation positions. The **Meaning(s)** box displays a list of short definitions and parts of speech.

The whole definition will appear within the frame that is at the bottom of the **Meaning(s)** box.

- You can move the cursor over these definitions using **CURSOR UP** and **CURSOR DOWN**. The **Synonym** box will display synonyms of the word that belong to the selected definition.
- You can use **CURSOR LEFT** to move the cursor to the **Synonym** box. Then you can select a word using **CURSOR UP** and **CURSOR DOWN**.

Pressing **RETURN** will copy the selected word to the **Word** entry field. Pressing **CURSOR RIGHT** or **TAB** sends the cursor back to the **Meaning(s)** box.

*If the specified word is not correctly spelled, this screen appears:*



The machine will tell you that there is a spelling mistake. The **Suggestion** box will display a list of correct words that resemble the misspelled word.

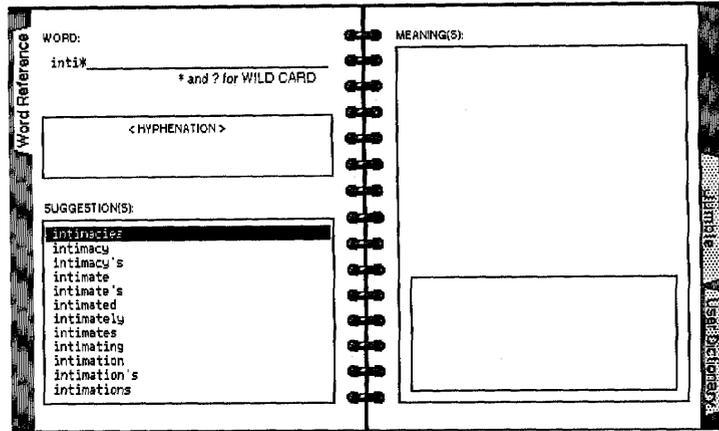
- You can move the cursor over these words using **CURSOR UP** or **CURSOR DOWN**. Pressing **RETURN** will copy the selected word to the **Word** entry field. Pressing **RETURN** a second time will show information about the word.

If the specified word is entered containing wild cards, you can enter a word using wild cards, "\*" or "?." The machine will try to find words that match your word upon substitution of the wild card character. "\*" can be substituted for a string of characters of any length; "?" can be substituted for a single character.

**Example:** If you enter *inti,*, the machine searches for words starting with *inti*, followed by any combination of characters.

*intimacies* and *intimate* are examples of matches.

If you type *br?wn*, the machine searches for words that are identical to *br?wn* except for the third character. **Brown** is an example of such a match.



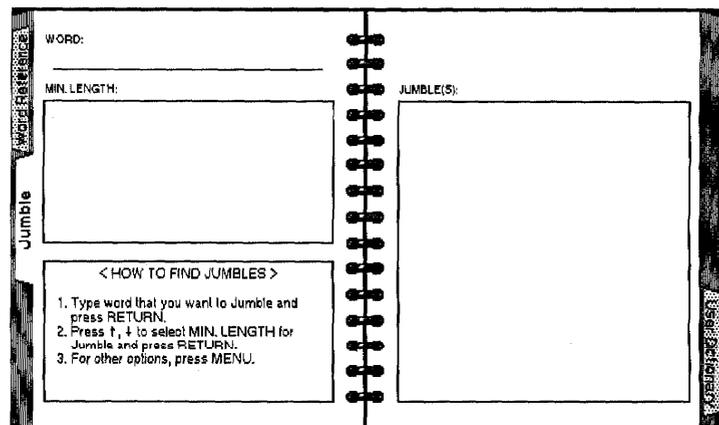
- You can move the cursor over the matching words using **CURSOR UP** or **CURSOR DOWN**. Pressing **RETURN** copies the selected word to the Word entry field.

Press **MENU** and make a selection from the Index menu to switch to another tool or to return to the Main Menu.

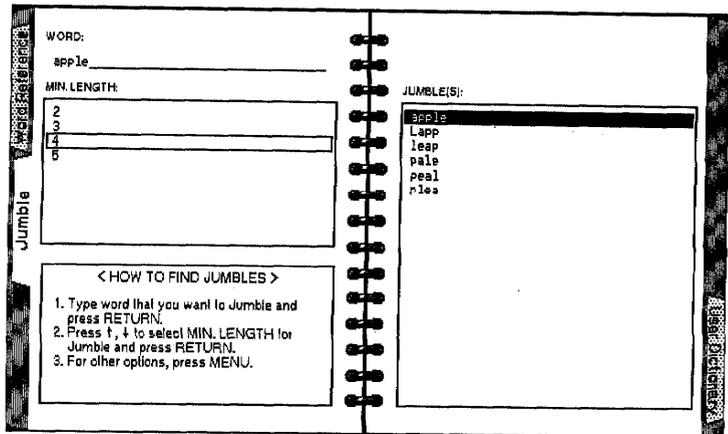
## Jumble

This function is used to search for words that resemble a specified word upon character rearrangement. The machine will assemble all possible strings of a specified length made of characters from the specified word. The strings that make actual words are displayed.

*When you start Jumble, this screen appears:*



- Type a word in the entry field **Word** and press **RETURN**.
- Use **CURSOR UP** and **CURSOR DOWN** to specify the minimum length of the words and press **RETURN**.



A maximum of 20 words will appear in the JUMBLE box.

A list of words appear in the **Jumble** box. You can use **CURSOR UP** or **CURSOR DOWN** to scroll the words and by pressing **CURSOR LEFT** on the top word of the list, you are able to choose and modify the minimum number of characters. When the cursor is in the **Jumble** box, press **TAB** and the cursor will move to the Word entry field.

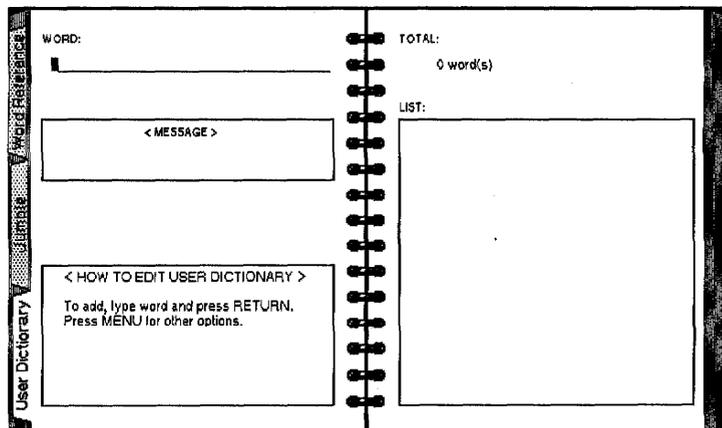
**Example:** The specified word is apple, and the specified minimum length is 4. The word apple contains 1 a, 2 p's, 1 l and 1 e.

*Using only those letters, the machine then writes all the possible strings of four or more characters, and displays those that are actual words (apple, Lapp,...).*

Press **MENU** and make a selection from the Index menu to switch to another tool or to return to the Main Menu.

## User Dictionary Maintenance

This tool is also accessible from other applications. *When you start User Dictionary Maintenance and there are no entries to the user dictionary, the following screen will appear. For details, see "User Dictionary Maintenance" on page 76.*



*When User Dictionary Maintenance is opened from the Desk Top Reference, there is no Exit in the Operate menu. To exit User Dictionary Maintenance, you must either go to another mode using the Index menu or choose Return to Main Menu.*

Press **MENU** and make a selection from the Index menu to switch to another tool or to return to the Main Menu.

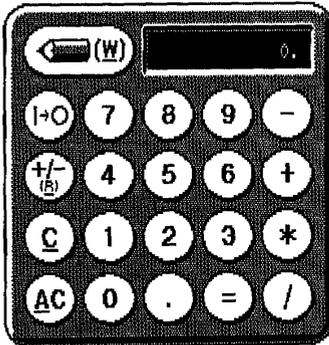


# 12 Calculator

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In the Calculator application, the screen displays a pocket calculator for basic arithmetic. The results can be transferred to the Typewriter, Word Processing, Spreadsheet, or Address Book screens.

## Starting the Calculator



1. Press **CODE + 8 (CALC)** with any of these screens:

- Main Menu
- Typewriter
- Word Processing Input/Edit screen
- Spreadsheet
- Addressbook (data input screen)

*A second way the Calculator can be started is by selecting the calculator icon on the main menu. (WP-7400J only)*

*The Calculator can be called up only during normal input. You cannot call up the Calculator when the HELP window is displayed, or when a special function like the Thesaurus is activated.*

*The Calculator window and this message will appear:*

Press CODE + 7 to change NUM-L on/off, R to enter +/-, F to finish.

## Using Number Lock Mode (NUM LOCK)

A portion of the keyboard can be used like the numeric keypad of a pocket calculator.

## Inputting Data

Use these keys to enter numbers and perform calculations:

Display	Key	Used for
1 - 0	Numeric keys 1 - 0 or their equivalent in Num Lock mode	To enter numbers
.	Period	Decimal point
+ - * /	+ - * / or their equivalent in Num Lock mode	The four operations: add, subtract, multiply, divide
+/-	R	To change the sign
C	C or DELETE	To clear the current input
AC	A	To clear all
=	= or RETURN	To get the result
 (W)	W	To exit the Calculator and paste the result at the current cursor position
I→O	F or CANCEL BACKSPACE	To exit the Calculator To delete a digit

## Order of Calculation

Operations are carried out in the following order of precedence:

multiplication or division first; then addition or subtraction.

**Example:** To calculate  $1+2*3=7$ , use  $1 + 2 * 3 =$ .

You can change the order of operation by calculating temporary results.

**Example:** To calculate  $(1+2)*3=9$ , use  $1 + 2 = * 3 =$ .

## Maximum length of numbers and precision

The maximum length of a number is 10 digits. If you enter more digits, they are ignored.

**Example:** 1234567890 or 0.123456789 are accepted.

12345678901 is truncated to 1234567890 (1 is ignored).

## Storing a constant

*If you enter the same operation more than twice consecutively, **K** disappears and reappears alternately with each additional entry.*

If you enter the same operation twice consecutively, **K** appears on the screen and the previous result is stored in a temporary memory. That result is automatically reused if you neglect to enter an operation before a number.

**Example:**  $5 + +$  (**K** appears and 5 is stored)  $2 =$  gives 7.

Then, press  $3 =$  8 is displayed.

## Clearing

*When an error occurs during calculation, **-E-** will appear. To delete this, clear the whole mathematical equation with **A**.*

**C** clears the last entered number or operation.

**Example:**  $1 + 2$  **C**  $3$  gives 4 (2 has been cleared).

To clear an operation and replace it with another, you may also enter the second operation. When you enter two or more different operations in a row, or only the last operation is used.

**Example:**  $1 * + 2$  gives 3.

**A** clears all operations and numbers.

## Returning to the Current Application

To quit the Calculator, press **CANCEL** or **F**.

If you started the Calculator with the Typewriter, Word Processing, Spreadsheet, or Addressbook application, you can also press **W** to return to that application and insert the last result on the Calculator at the current cursor position.



# 13 Clip Board

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The Clip Board copies a portion of a file into temporary memory, and pastes it into another file. This makes it possible to transfer data between files and different applications (Word Processing, Spreadsheet, Addressbook).

Each time you copy new data to the Clip Board, the new data overwrites the old data. The Clip Board is cleared when the power is turned off.

## Copying Data to the Clip Board

You can copy data to the Clip Board from the Word Processing, Spreadsheet, or Addressbook applications.

1. Position the cursor on the first character of the block you want to copy.
2. Press **MENU** and select **Block** (Word Processing and Spreadsheet) or **Record** (Addressbook); then select Copy to Clip Board. (Short cut: **CODE + C CLIP**)

*This message appears for Spreadsheet or Addressbook:*

Move cursor to end of block and press RETURN.

*This message appears for Word Processing:*

Move cursor to end of block and press RETURN.  
To jump to paragraph end, press SHIFT + ←, SHIFT + →.

3. Move the cursor to the end of the block and press **RETURN**. *This message appears:*

Data is stored in CLIP BOARD.

- If there is not enough free memory to store the selected data, the Clip Board clears and this message appears:

Not enough memory remaining!  
Press any key to continue.

## Pasting Data from the Clip Board

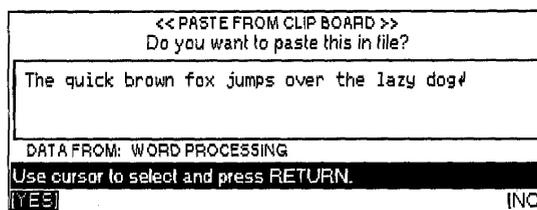
The contents of the Clip Board remains unchanged until you overwrite them or switch the power off. This means that you are able to paste the contents of the Clip Board more than once.

You can paste the contents of the Clip Board into the same file, in which case the operation is equivalent to a block copy, except that you can copy the same data many times in the same document.

You can also paste the contents of the Clip Board into another file. To do this, you must open the target file after copying the data from the source file into the Clip Board. The target file can be opened either in normal or dual mode.

1. Move the cursor to the position to be pasted.
2. Press **MENU** and select **Block** (Word Processing and Spreadsheet) or **Record** (Addressbook); then select Paste from Clip board. (Short cut: **P CLIP**)

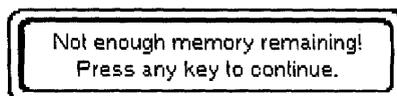
*The following window appears:*



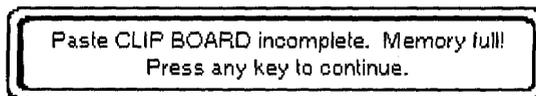
3. Use **CURSOR LEFT** and **CURSOR RIGHT** to select and press **RETURN**.
  - **NO**: Cancels the function.
  - **YES**: Inserts the Clip Board data at the cursor's current position.

When you are pasting a Spreadsheet range into a Word Processing file, **YES** is replaced with **YES AS TABLE** and **YES AS TEXT**. Select **YES AS TABLE** when you want the range to be automatically formatted as a table with frame lines. Select **YES AS TEXT** when you want to paste the text only.

*If there is not enough free memory to store the Clip Board data into the file, this message appears:*



*However, for Spreadsheet, this message appears:*



## Copy/Paste from Word Processing to Word Processing

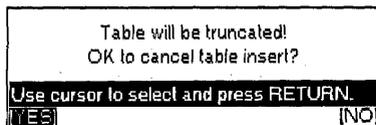
Data is inserted at the current cursor position and is formatted the same way as when you use the Block Copy function.

## Copy/Paste from Spreadsheet to Word Processing

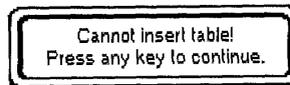
If you select YES AS TEXT, the data is inserted as a block of text, the way it appears on the PASTE FROM CLIP BOARD window. Type Style, Font, and Size are reset to the values at the cursor position.

If you select YES AS TABLE, the data and table is inserted starting from the next line. The font is automatically set to Brougham and the font's point size is set to match the point size that is currently set at the cursor position.

- If the table cannot fit between the margins, this window appears:



- YES: Cancel the table insert and return to the previous display.
- NO: Table will be truncated (Some of the table will be chopped off to make the table fit.)
- If one cell is too large to fit between the margins, the following message appears:



Pressing any key returns the previous screen without inserting the table.

- A frame cannot contain more than 22 rows or more than 30 columns. If the Clip Board data exceeds that limit, this message appears:

Crossed positions full. Cannot insert table lines.

*In that case, the data will be inserted without the table lines.*

## Copy/Paste from Addressbook to Word Processing

The data is inserted as a block of text, the way it appears on the PASTE FROM CLIP BOARD window. Type Style, Font, and Size are reset to the values at the cursor position.

## *Copy/Paste from Word Processing, Addressbook to Spreadsheet*

The pasted data overwrites existing data in the Spreadsheet. All data is considered alphanumeric and will be left-aligned in the cells. A line in the Word Processing file or a record in the Addressbook file becomes a single cell in the Spreadsheet file (in the column that you selected as the pasting position).

If data longer than 238 characters is found, the additional characters are ignored, and this message appears:

Truncated data exists.

## *Copy/Paste from Spreadsheet to Spreadsheet*

The data from the Clip Board overwrites the target range as when you use the Block Copy (A Range of Cells) function.

## *Copy/Paste from Word Processing or Spreadsheet to Addressbook*

The pasted data will be inserted in existing data in the Addressbook. A line in the Word Processing file or a row in the Spreadsheet file becomes a single record in the Addressbook file. The record is divided into different items according to the width of the columns in the Addressbook.

*If data longer than the length of a record is found, the remaining characters are ignored, and this message appears:*

Truncated data exists.

## *Copy/Paste from Addressbook to Addressbook*

The pasted data will be inserted in existing data at the cursor position. The machine pastes the first column of the Clip Board data into the first column of the destination file, and so on. If a label width in the Clip Board is larger than the label width of the destination file or when the number of labels in the destination file is insufficient, the data of that label is truncated, and this message appears:

Truncated data exists.

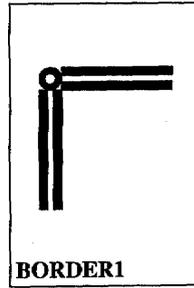
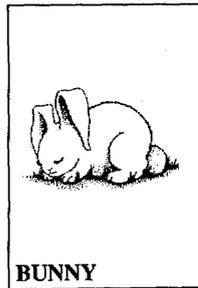
# Appendix

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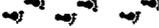
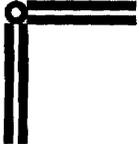
## 100 Graphic Art Images

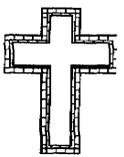
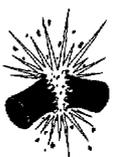
*The standard Graphic Art Images disk are READ only. Therefore, if you edit these images, we recommend that you save them onto another disk.*

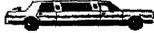
There are also 100 graphic art images stored on the standard Graphic Art Images diskette as follows. These images allow you to create personalized letter heads, fancy invitations, newsletters, etc. 100 graphic art images are shown on the following pages. The file name of each border or graphic is listed at the bottom of each graphic. The borders are accessed by the Frame Print function and the other graphic images are accessed by the Graphic Art Print function.

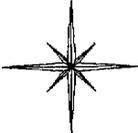
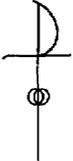


# 100 GRAPHIC ART IMAGES

				
747	ACCENT	ANNOUNC	B-DAY	BABY
				
BALOONS	BAREFEET	BASEBAL	BAT	BIGEVENT
				
BILL	BLACKCAT	BORDER1	BORDER2	BORDER3
				
BORDER4	BORDER5	BORDER6	BORDER7	BORDER8
				
BSNSMAN	BSNSWMN	BUNNY	CAR	CHAMPGN

			Congratulations!	
CHECK	CHEETAH	CHURCH	CONGRAT	CROSS
				
CRUISE	CUT	DOG	EAGLE	EASTER
		FIRST CLASS		
EGGHEAD	FIRECRKR	FIRST	FISH	FIST
		FREE!		
FLAG	FOOTBAL	FREE	FUNBUS	GOLF
	GRAND OPENING	Seasons Greetings		Happy Hanukkah
GRAD	GRAND	GREET	HANDSHK	HANUKKAH

				
HAPPYHOL	HOT-AIR	JACKOLN	JOY	KITTY
				
LIMO	LINCOLN	LIPS	MARTINI	MODEL
				
MOONDUDE	NEW	NEWBURST	NEWYEAR	NOSMOKE
				
NOTE	NOTES	PAPERCLP	PARTY	PIGGYBNK
				
PINAPPLE	PUSHPIN	REMINDER	ROSE	RUSH

	<b>SALE</b>	<i>SALE</i>		<b>\$SAVE\$</b>
RYLFLUSH	SALE1	SALE2	SANTA	SAVE
				
SCHOOL	SHAMROCK	SKULLBNS	SOLDSIGN	STAR
				<i>THANK YOU</i>
STARDUDE	SUNDUDE	TEARDROP	TENNIS	THANK
				
TRACK	TROPHY	UMBRELLA	VALENTN	WAITER
				
WASHNGTN	WEDDING	WREATH	XMASBELL	YOU



# Troubleshooting

Your Whisperwriter has been manufactured to give you years of trouble-free use. In the rare case that trouble does happen, you will probably be able to find the solution in the table below. If you cannot, please do not attempt to repair the machine yourself. Instead, please contact your Brother dealer.

Trouble	Remedy
Nothing works after the machine has been switched on.	Check that the power cord is plugged in.
Printout is impossible or difficult to read.	Check that the ink cartridge is installed correctly. (Please refer to Installing/replacing an ink-jet cartridge on page 14.) Check that there is ink in the cartridge. Press <b>CODE + SHIFT + INK CHG</b> to clean the head. If printout is still difficult to read, press <b>CODE + INK CHG</b> . After the print head moves to the left, replace the ink cartridge. Then press <b>RETURN</b> to clean the head. Repeat this operation several times if necessary.
Back of paper is stained with ink.	The main roller is stained. Feed two or three sheets of paper through the printer to clean the roller.
Ink runs on the paper.	Try printing on the other side of the paper. If this does not solve the problem, try other types of paper.
White horizontal lines appear in the printed text.	The printer and the print head on the cartridge are not properly connected. Remove and reinsert the cartridge. (See Replacing the Ink-jet Cartridge for more information).
Paper jams.	If the paper jams while you are using the cut sheet feeder, first remove the cut sheet feeder then remove the jammed paper.
All seems normal after the machine has been switched on, but nothing is displayed.	Adjust the brightness controller. Check that the cable is firmly connected to the CRT display.
Disk operation is not possible.	The diskette has been damaged, or a television set or the CRT display is located too close to the disk drive. Try with another diskette and/or move the word processor.

# Error messages

Please consult the following table when an error message appears.

Message	Cause	Remedy
Check printer! Press any key to continue.	Malfunction of the printer mechanism detected.	Press any key to erase the message, turn the power off, then on again and check to see if the printer moves correctly. If the error message reappears, consult your dealer.
Incorrect spec!	Malfunction at a soldering point detected.	Turn off the power and consult your dealer immediately.
Printer error! Press any key to continue.	Malfunction detected in the slave CPU.	Press any key to erase the message, turn the power off, then on again and check to see if the printer moves correctly. If the error message reappears, consult your dealer.
RAM down!	Malfunction detected in your machine's Random Access Memory.	Turn the power off and consult your dealer immediately.

# Specifications

**Display:** CRT, 800 x 324 dot

**Keyboard:** 65 keys

Auto repeat function

**Printer:** Built-in ink jet printer

Print method: 300 x 300 dpi ink jet printing

Print speed: 160 cps (for regular & fine mode printing)

Paper capacity: 304.7 mm (12 in.)

Print capacity: 231.14 mm (9.1 in.)

Ink-jet Cartridge: Approx. 1,000,000 chr. / cartridge in regular print mode\*

Font type: Tennessee, Helsinki, Brougham, US, Calgary

Font size: 10, 12, 18, 24, 36 point

## Memory

Text memory: 70K

External memory: 1.44M/720K (formatted) 3.5" floppy disk

## General

Voltage: 120V

\* Estimated by using standard text in 12 point, Brougham font.

## Compatible accessories

Obtain supplies from your nearest authorized Brother dealer. Brother cannot be held responsible for difficulties caused by the use of unauthorized supplies.

### Supplies

MFD-80 Package of ten HD 3.5" disks, 1.44MB

IN-700 Ink-jet Cartridge

CF-710 Cut Sheet Feeder

MO-700 Data Modem (WP-7550J & WP-7550J only)



# Glossary

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**Abbreviated phrase:** A function that allows you to enter phrases you use frequently by typing an abbreviation rather than the entire phrase.

**Absolute address:** A spreadsheet cell address specified in a formula that is not updated if you change the layout of your spreadsheet.

**Accelerator keys:** Letter keys which will activate respective functions and are the underlined letters on function menus or pull-down menus.

**Address:** The position of a spreadsheet cell, designated by its column letter and row number.

**Address block:** In a letter, the area in which the recipient's address is shown.

**Alphanumeric data:** Data entered into a spreadsheet that cannot be calculated.

**Application:** A program such as word processing, spreadsheet, or Addressbook.

**Argument:** The information such as a value or cell address, which you must supply when using a math function in the Spreadsheet application.

**ASCII file:** A text file for which all special formatting has been eliminated and consists of only ASCII codes.

**Backup:** A copy of your data on a separate diskette that you keep in case your original data and/or diskette is damaged.

**Block:** An area of text that you can copy, delete, or move to another part of that document or to another document in Word Processing, Spreadsheet or Addressbook applications.

**Body block:** In a letter, the main body of text.

**Bold:** To make characters thicker than normal, or characters which are thicker than normal.

**Calculator:** An application that enables calculations to be made on the screen.

**Center tab:** A tab used to center text at that position.

**Cell :** The area on a spreadsheet that is located at the intersection of a row and column. It is where one piece of data is stored.

**Centering:** A Word Processing function which centers text between margins.

**Change screen:** A function used with the dual display mode to change the active file, that is, to move the cursor between the two files displayed on the screen.

**Character keys:** Keys that produce a letter or symbol.

**Chart symbol:** A symbol that indicates that there is a chart beginning from that line.

**Clip Board:** Memory for storing data that you want to put at another location.

**Column:** In Addressbook, a vertical group of information that represents one category, such as names or addresses. In Spreadsheet, a vertical group of cells extending from the top of the worksheet area to the bottom and which is one cell wide.

**Command mode:** The state in which you can access the function menu by pressing **MENU** in the Spreadsheet application.

**Complimentary close line:** In a letter, a line containing ending words and phrases such as "Sincerely", or "Truly yours". In the Auto Letter Layout application, the complimentary close line must contain more than five and up to 30 characters and followed by a comma and **RETURN**.

**Conversion:** Changing computer data into a form that can be used by a different computer system or program. This machine allows you to convert a Word Processing file into an ASCII file and vice versa, as well as a Spreadsheet file into a Lotus® 123® file and vice versa.

**Cursor:**

- 1) A small blinking box used to select a position on the screen.
- 2) A long illuminated block used to select menu items by highlighting them.

**Cursor keys:** The four keys with arrows on them. The cursor is moved by pressing these keys.

**Cut sheet feeder:** A paper feeder, available as an option, that automatically feeds individual sheets of paper.

**Date line:** In a letter, a line showing the day's date.

**Decimal tab:** A special tab used to align a column of numbers by their decimal point rather than by the first character.

**Denominator:** The bottom half of a fraction or equation.

**Direct number:** Spreadsheet data consisting of digits and possibly a decimal point, that can be used in calculations.

**Disk Drive:** The mechanism that writes data to and reads data from diskettes.

**Diskettes:** A thin, magnetic-coated disk on which computer data can be stored. This machine uses 3.5-inch floppy diskette.

**Double sort:** Rearranging data according to two specified conditions.

**Dual display:** Displaying two files (not necessarily from the same application) on the screen.

**Enclosure notation:** In a letter, a line containing information on attached materials.

**Entry field:** On the Data Input screen in the Addressbook application, each data entry area.

**Exponentiation:** A notation that indicates the number of times a number is to be multiplied by itself. In the Spreadsheet application,  $2^3$  is displayed like 2#3 and means  $2 \times 2 \times 2$ .

**Extension:** Characters added to the end of a file name after a period to identify in which application the file was created.

**Extra Character:** Foreign language characters, special marks and common symbols are available for use in your files.

**File:** The unit in which data is stored on the diskette, for example, a single Word Processing document, Spreadsheet, or Addressbook file.

**Floppy diskette:** See Diskettes.

**Font:** A specific printing style that is assigned to the characters set. You may use one font or a combination of fonts within one file. (Tennessee, Helsinki, etc.)

**Font Size:** The height and width of a character is determined by the selected point size.

**Font & Size:** Screen that allows you to select both the font and the size of the font for typed characters.

**Footer:** A line of text printed at the bottom of every page in a document.

**Format:** The visual arrangement of text on a page, determined by such factors as margin and tab settings, justification, centering, etc.

**Format change symbol:** A symbol indicating that there was a format change, such as Justify on/off.

**Formatting:** See Initializing.

**Format mark:** Symbols that designate spreadsheet data as alphanumeric data, and can also be used to place data flush right or flush left in cells.

**Formula:** Numeric data entered on a spreadsheet consisting of operators, operands, and parentheses that directs the system to perform a calculation.

**Frame:** A set of horizontal and/or vertical lines such as those used in forms and tables.

**Function key:** A key that initiates a specific operation. The MENU Key is an example of a function key.

**Function menu bar:** A bar-shaped area that appears across the top of the screen that contains pull-down menu names. It is made available by pressing **MENU**.

**Graphics:** Any non-alpha/numeric image that you add to your document, such as vertical/horizontal lines, charts, and graphs.

**Header:** A line of text printed at the top of every page in Word Processing files.

**Help window:** A window that shows a list of short-cut keys.

**Hyphen scan:** A Word Processing function that scans your document for lines of text with long blank spaces caused by the word wrap function.

**Identification line:** In a letter, the line containing the name of the sender.

**Initializing:** A process by which the system divides a diskette into sections that organize the storage of your files. If the diskette contains data, the system will delete it during formatting.

**Ink-jet cartridge:** An accessory needed to supply ink for printing.

**Input area:** In the Spreadsheet application, the upper row where the cursor moves to when inputting data.

**Input/Edit screen:** In the Word Processing and Addressbook applications, the screen where you enter data.

**Insert mode:** The mode in which you can insert text at the cursor while “pushing” other text further on.

**Integer:** A whole number (without any fraction or decimal places).

**Justify:** A Word Processing function used to adjust each line end to the right margin by evenly adding extra space between words.

**Label:** A string of characters that identifies each category of information in an Addressbook file.

**Label printing:** A method for printing Addressbook records on envelope labels.

**Leader tab:** A tab used to enter a line of dots from the position where **TAB** is pressed up to the next tab stop.

**Line framing symbol:** A symbol indicating that there is a frame beginning on that line.

**Line out:** A function that quickly erases all characters before the cursor on the current line.

**List printing:** A method for printing Addressbook records as a list.

**Memory:** A part of the Whisperwriter that temporarily stores data. The contents of the memory are cleared when you turn off the Whisperwriter.

**Merge printing:** A function for printing a Word Processing document incorporating Addressbook records (such as addresses) in desired positions.

**Non-character key:** Keys that don’t provide letters or symbols. Non-character keys activate the functions indicated on their respective key tops.

**Normal tab:** A tab stop used to left-align text with that position.

**Numeric data:** Data entered in a spreadsheet that can be used in calculations.

**Operand:** The data in a spreadsheet formula on which a mathematical operation will be performed. In a spreadsheet formula, an operand can be a number, address, function, or formula enclosed in parentheses.

**Operator:** The character in a spreadsheet formula that specifies the mathematical operation to be performed (+, -, #, \*, and /).

**Overwrite mode:** The mode in which inserting text at the current cursor position deletes the text at that position.

**Page break symbol:** A symbol that ends a page and starts a new page.

**Paragraph break:** The end of a paragraph formed by pressing **RETURN**. The paragraph break symbol  $\leftarrow$  is displayed.

**Permanent hyphen:** A hyphen to protect words from being separated on two lines. Words with a permanent hyphen between them are treated as if they are one word.

**Permanent space:** A space to protect words from being separated on two lines. Words with a permanent space between them are treated as if they are one word.

**Point:** The unit used to express the size of characters. 72 points = 1 inch.

**Print Preview:** A screen illustration of your typed document displayed to give an overall format layout before printing.

**Prompt:** A message or format displayed on the screen that requires the user’s response.

**Pull-down menu:** A list of functions that appears below the menu name when the menu name is selected.

**Recalculation:** Redetermining the results of all formulas in a spreadsheet to incorporate new or changed data.

**Record:** One listing in an Addressbook file, for example, the name, address, and telephone number of one individual.

**Relative address:** A spreadsheet cell address that gives the location of a cell in relation to its position from another cell. This address updates when the spreadsheet document's layout changes.

**Right margin flush:** Aligning text with the right margin.

**Root directory:** The original file directory of a tree structured file system. The root directory exists even if the user does not make any other directories.

**Row:** On a spreadsheet, a horizontal line of cells that extends from the extreme left of the worksheet area to its extreme right.

**Salutation line:** In a letter, the line before the body of the letter, containing a phrase beginning with the likes of "Dear", or "Ladies and Gentlemen."

**Scale:** The line at the top of the display that shows the horizontal position of the cursor as well as the position of the right and left margins and tab settings.

**Scroll:** To quickly move through the data display area when all the data cannot fit on the screen. As old data disappears from one edge of the screen, new data appears at the opposite edge,

**Search:** A Word Processing, Spreadsheet, and Addressbook function to find a specified string of characters.

**Select:** A Spreadsheet and Addressbook function to list data that match the specified conditions.

**Self-demo:** A program that shows you examples of a Spreadsheet, Word Processing, and Addressbook documents.

**Short-cut keys:** A combination of keys to activate a function without selecting the function from the function menus.

**Signature block:** In a letter, an area where the sender signs his or her name.

**Soft hyphen:** A hyphen entered with **CODE + S** or inserted with hyphen scan function.

**Soft space:** A normal space produced by simply pressing **SPACE BAR**.

**Sort:** To reorganize Spreadsheet or Addressbook data in either alphabetic or numeric order (or reverse order).

**Spell check:** A function that checks your text for misspelled words and displays a list of possible corrections.

**Split size:** A function used to adjust the ratio of the displayed portion of files when two are shown on the screen.

**Status line:** The area at the top of the screen showing the name of the file you are working on, and other current settings.

**Subdirectory:** Directories created below a root file directory or other file directories, by the user.

**Subscript:** Characters printed slightly lower than normal characters.

**Superscript:** Characters printed slightly higher than normal characters.

**Symbols:** *Special characters that can be included in your documents.*

**Tab:** A key that moves the cursor (and text) to the next preset tab stop. Tabs can align text in various ways. For example, decimal tab aligns numbers by their decimal points.

**Text area:** In the Word Processing Input/Edit screen, the range over which you can move the cursor and enter data.

**Tutorial:** A program that shows how to use the Word Processing application.

**Type style:** An attribute, such as underlining, that is given to your typed text to add effect.

**User dictionary:** A list of words that are not in the Spell Check's standard dictionary and which are entered by the user. The Spell Checker consults this when checking spelling in your document.

**Word out:** A function that allows you to quickly delete the word immediately before the current cursor position.

**Word wrap:** This function allows you to type a paragraph continuously pressing return. When a word is going beyond the right margin, the word will be moved to the next line automatically.

**Write protection:** Protecting a diskette from accidental erasure by setting the write-protection switch in Read Only position.

**Wild card character:** A character included in a character string to represent one or more unknown characters when searching for a character string. In this machine, "?" is used to represent one unknown character in a string, and \* to represent one or more characters.

**Worksheet area:** The area in the spreadsheet application where the data is entered and manipulated. This area is divided into cells.

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