HOUGHTON MIFFLIN KEYBOARDING

and Applications

Chiri
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Jacquelyn P. Kutsko teaches keyboarding and word processing on electric and electronic keyboards at Smoky Hill High School in Aurora, Colorado. An FBLA adviser, she has also taught business English, office procedures, and most other courses in the business education curriculum at the secondary and postsecondary levels. In addition, Ms. Kutsko is self-employed as a business office consultant. She has written numerous articles and conducted teacher workshops throughout the United States.

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Preface

The rapid growth of technology has resulted in changes in every facet of our lives—business, personal, and professional. One significant change is that keyboarding skills are in greater demand for an increased number of people whose careers or personal interests bring them in contact with this electronic technology.

The skills required for keyboarding in the electronic age are not identical to the skills taught in the traditional typewriting course, nor is the methodology for developing these skills identical. To develop an appropriate level of keyboarding skills in our students, we need to appreciate *how* and *where* their keyboarding skills will be applied and to adjust our curriculum accordingly. Two needs emerge from this analysis. First, more than ever, we need to use sound techniques for developing "touch" keyboarding skills. Second, we need to shift the classroom emphasis from one of production to one of inputting and accessing information. Specifically, our students must be able to input both text and data efficiently and to access the capabilities of the microcomputer. The keyboarding course that addresses these needs can open the door to the technological future for many of our students.

Objectives

Houghton Mifflin Keyboarding and Applications is a comprehensive program carefully designed to train persons to input data efficiently and accurately through the use of a keyboard. This broadly stated goal encompasses a hierarchy of objectives:

- To develop a "touch" keyboarding skill for inputting both alphabetic and numeric data
- To develop the ability to format typical documents
- To develop a knowledge of information processing terms associated with the skill of keyboarding
- To develop proofreading and basic language arts skills
- To develop the ability to compose at the keyboard
- To develop desirable interpersonal skills needed in a world of electronic communications: flexibility/adaptability, decision making, time management, and positive attitudes
- To develop the ability to use equipment and to access its capabilities efficiently

Components

A complete package of instructional materials has been developed to meet these objectives. The package includes: a student textbook with ample material for up to one semester; a Teacher's Manual containing a complete testing program; and a Student Activities workbook correlated to the textbook.

Features

Houghton Mifflin Keyboarding and Applications promotes student mastery of keyboarding and the development of formatting skills through a variety of special features.

Skill-Building Program Intensive technique development through technique timings, speed-building drills, and accuracy practices is the basis of the skill-building program, enabling students to develop speed and accuracy.

Simplified Instructions The directions for completing each job, as well as explanations of formats and procedures, are presented in simple, easy-to-read language. Students can learn independently while they are developing their ability to read and follow directions.

Realistic Work Assignments Students key from rough-draft, handwritten, unarranged, and incomplete copy, as well as their own compositions, to gain experience in working with different kinds of source documents.

Communication Skills Keyboard Composition activities give students opportunities to input original work at the keyboard, while Language Arts and Apply the Rule activities review basic capitalization, punctuation, and related language skills.

Decision-Making Skills Activities are structured to give students increasing responsibility for the details of their work. The sequence is *show, tell, remind,* and *remember.* Initially, students key from completely formatted copy in the Project Previews. The next few applications are accompanied by complete instructions. In later applications, these detailed instructions are replaced by reminders in the form of "cues" and "checkpoints." Finally, students are expected to remember the format—or look it up in convenient Need to Knows.

Computer Literacy Lesson content and the topics and vocabulary presented in timed paragraphs and other drill materials enhance students' understanding of computers, their capabilities, and some of their uses.

Simulation To provide practice in handling realistic input, a minisimulation is included in Lessons 71–73. This minisimulation exposes students to a number of ways in which electronic keyboards are being used to process information more efficiently.

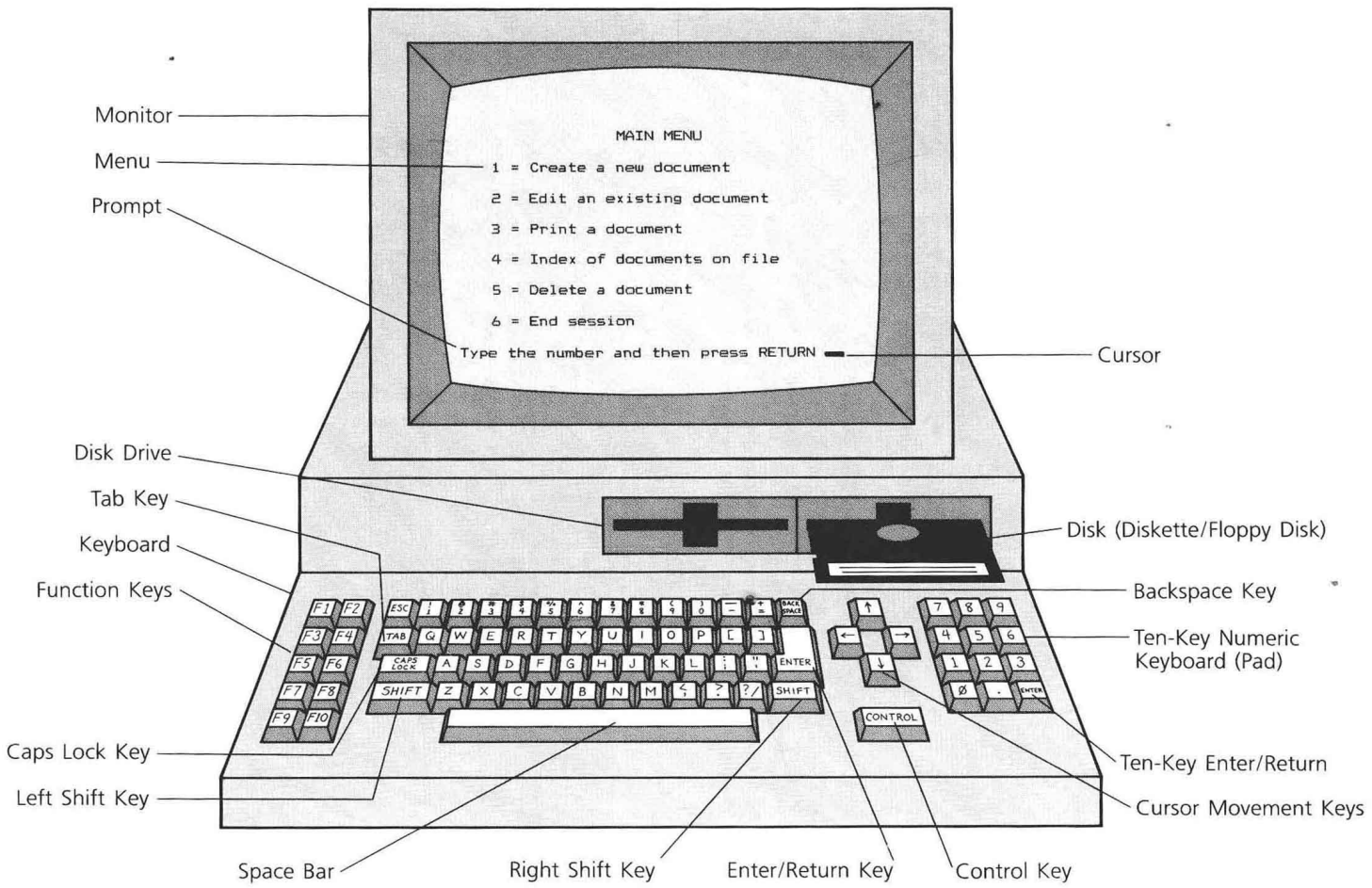
Testing Program The Measuring Mastery lessons in the student textbook can be used for informal or formal evaluation of student progress. Alternate tests provided in the Teacher's Manual on blackline masters contain objective questions and application problems to check student comprehension of basic keyboarding concepts.

Acknowledgments

This textbook represents a group effort, with many people contributing their ideas and assistance. Among those who deserve special mention are our students and colleagues, who reviewed and used drafts of our materials in their classes; the teachers and students who participated in the learner verification study; and the hundreds of teachers who have shared their insights, problems, solutions, and enthusiasm for teaching in today's electronic environment. To all of them go our sincere thanks and appreciation for their valuable suggestions and encouragement.

J. Chiri, J. Kutsko, P. Seraydarian, T. Stoddard

Microcomputer



Backspace Key moves the cursor to the left (backward) one space at a time. On some equipment, it may delete characters.

Caps Lock Key is used to key all capital letters.

Control Key is usually used with other keys to perform specific functions such as automatic centering.

Cursor is a lighted indicator on the display screen that shows a user's exact position within a document.

Cursor Movement Keys allow the cursor to be moved up, down, left, or right within text.

Disk (Diskette/Floppy Disk) is the most common storage medium used with microcomputers. Disks are usually made of thin plastic, magnetically coated. Disks are protected by a jacket with openings to allow the disk drive to read or write information.

Disk Drive is the component of a microcomputer system that reads and writes data on a disk.

Enter/Return Key is used to enter information into a microcomputer or to return the cursor to the beginning of a new line.

Function Keys are those keys other than the alpha/numeric keys that allow the user to perform special functions such as automatic centering.

Keyboard is a device similar to a typewriter keyboard containing alphabetic, numeric, and special function keys.

Left Shift Key is used to capitalize letters keyed with the right hand.

Menu is a list of functions available in a software program.

Monitor is an electronic screen that displays data. The monitor may also be called a CRT (Cathode Ray Tube) or a VDT (Video Display Terminal).

Prompt is a line displayed on the monitor to request specific input from the user.

Right Shift Key is used to capitalize letters keyed with the left hand.

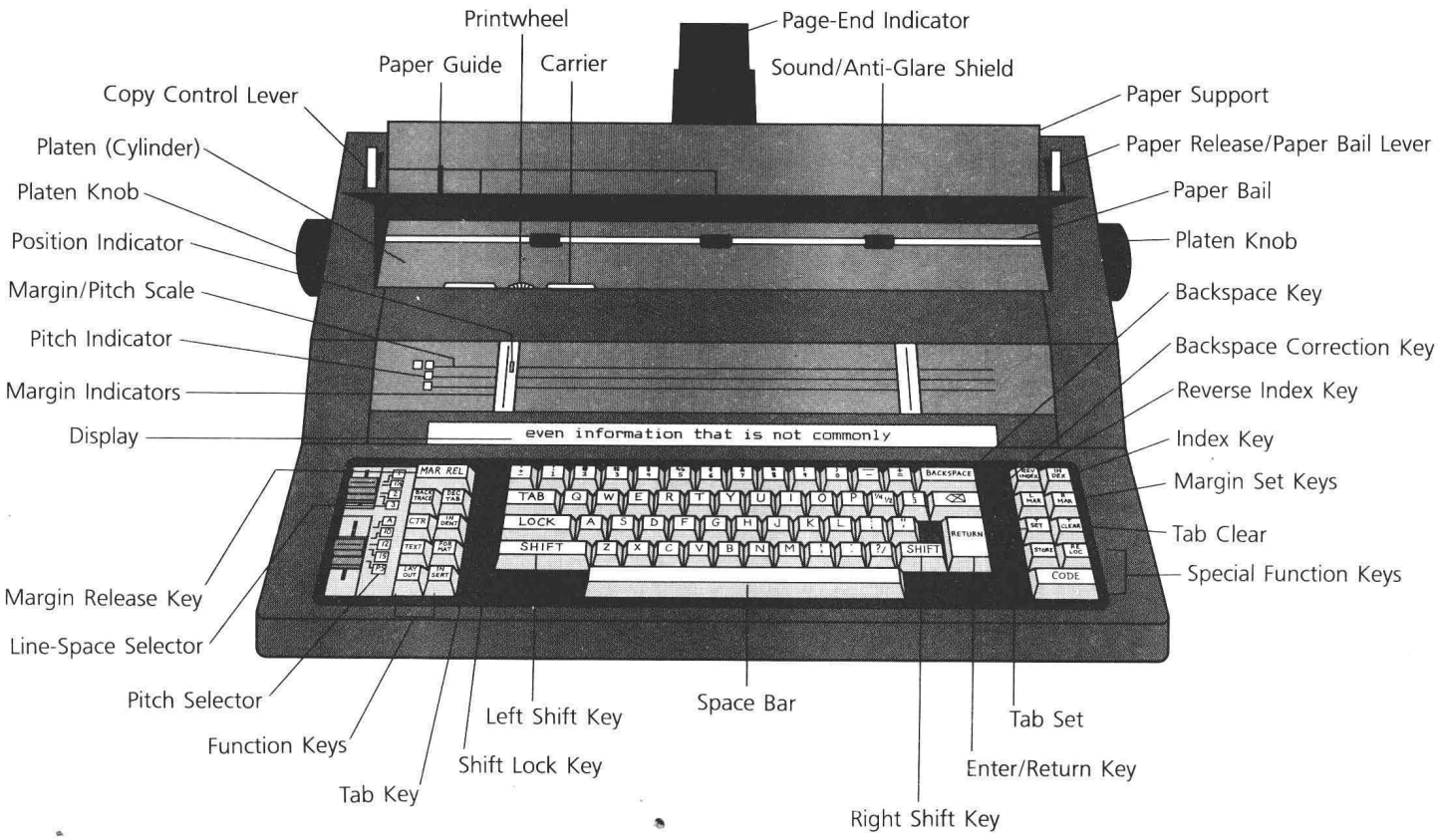
Space Bar spaces the cursor forward one space at a time.

Tab Key moves the cursor directly to a tab stop.

Ten-Key Enter/Return is used to enter numeric data from the ten-key numeric pad.

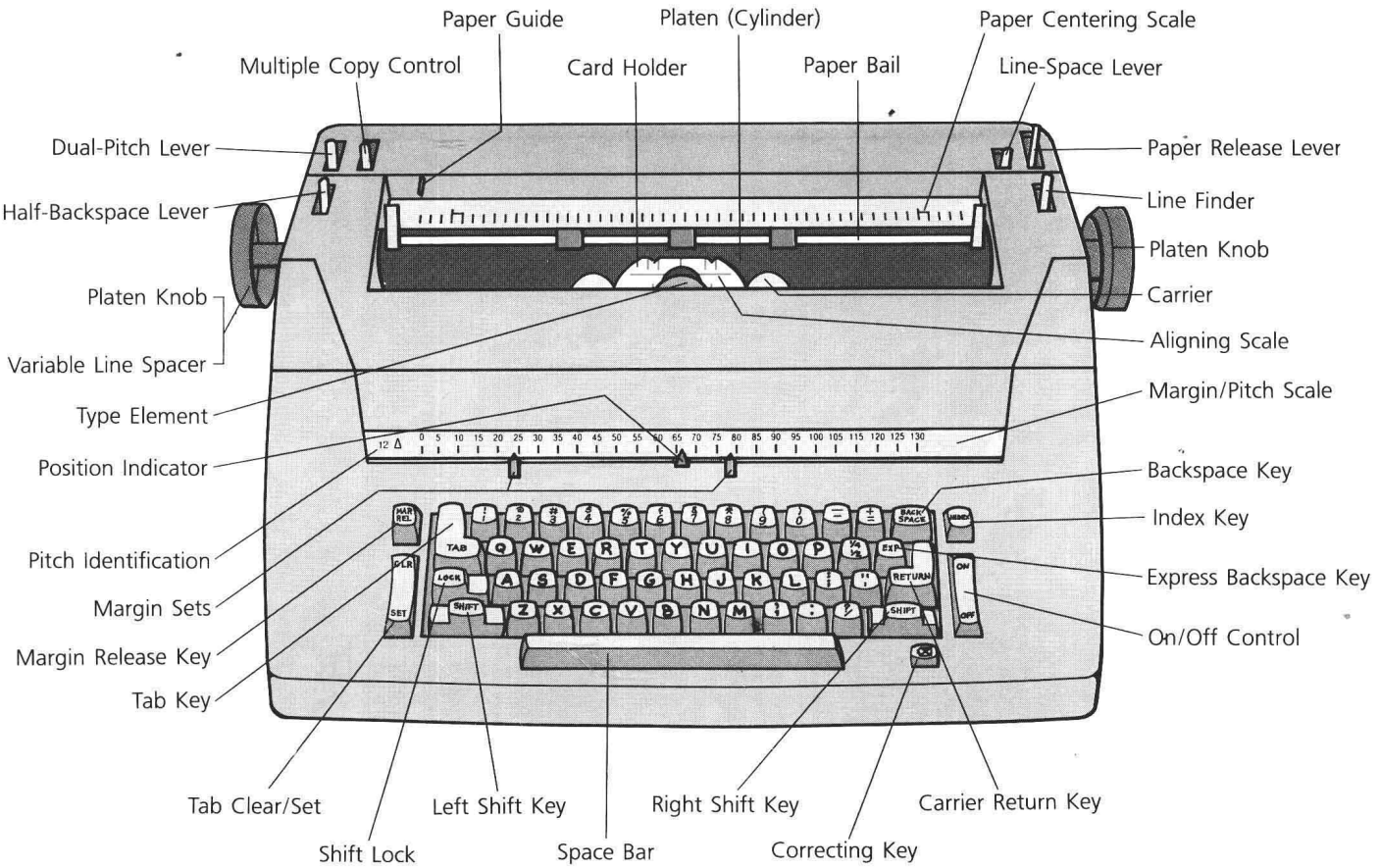
Ten-Key Numeric Keyboard (Pad) is a set of keys that resembles a calculator and is used to enter numeric data.

Electronic Typewriter



Backspace Correction Key backspaces and removes an incorrect character.
Backspace Key moves the carrier to the left (backward) one space at a time.
Carrier is the movable unit containing the printwheel and ribbon carrier.
Copy Control Lever moves the platen forward or backward to adjust for paper thickness.
Display shows keyed text for checking accuracy.
Enter/Return Key enters information into memory and/or returns the carrier to the left margin while moving the paper up to a new line.
Function Keys are those keys other than the alpha/numeric keys that allow the user to perform special functions such as automatic centering.
Index Key moves the paper up without returning the carrier to the beginning of a line.
Left Shift Key is used to capitalize letters keyed with the right hand.
Line-Space Selector controls the space between lines of text.
Margin Indicators are adjustable tabs on the margin scale that can be positioned to show where current margins are set.
Margin/Pitch Scale indicates horizontal spaces, the position of the carrier, and the pitches available. It may also show the position of the margin sets.
Margin Release Key allows the carrier to move beyond the margin stops.
Margin Set Keys set the margins to control the beginning and ending of lines.
Page-End Indicator shows the lines/inches left on a standard 8½ x 11-inch sheet of paper.
Paper Bail holds the paper against the platen.
Paper Guide guides the paper into the machine so it is consistently in the same position.
Paper Release/Paper Bail Lever frees the paper for removing or straightening.
Paper Support supports the paper for reviewing.
Pitch Indicator shows the pitch that has been selected.
Pitch Selector allows the user to choose a pitch from those available on the machine.
Platen (Cylinder) is the large roller around which the paper turns.
Platen Knobs are used to turn the platen by hand.
Position Indicator shows the position of the carrier on a line.
Printwheel is a circular disk containing all the keyboard characters.
Reverse Index Key moves the paper down without returning the carrier to the beginning of a line.
Right Shift Key is used to capitalize letters keyed with the left hand.
Shift Lock Key is used to key all capital letters.
Sound/Anti-Glare Shield reduces noise and adjusts for glare.
Space Bar spaces the carrier forward one space at a time.
Special Function Keys are those keys that do not produce a letter, number, or special symbol.
Tab Clear clears, or removes, tab stops.
Tab Key moves the carrier directly to a tab stop.
Tab Set sets, or puts in, tab stops.

Element Typewriter



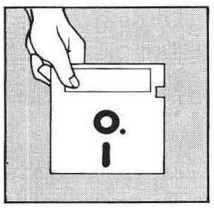
Aligning Scale helps locate the text line when reinserting paper.
Backspace Key moves the carrier to the left (backward) one space at a time.
Card Holder holds cards and envelopes against the platen.
Carrier is the movable unit containing the element and ribbon carrier.
Carrier Return Key returns the carrier to the left margin and moves the paper up to a new line.
Correcting Key backspaces to the error and moves the lift-off tape into position to make a correction.
Dual-Pitch Lever (special models only) resets spacing for 10 pitch or 12 pitch.
Express Backspace Key moves the carrier rapidly to the left without spacing the paper up.
Half-Backspace Lever moves the carrier to the left a half space at a time.
Index Key moves the paper up without returning the carrier to the beginning of a line.
Left Shift Key is used to capitalize letters keyed with the right hand.
Line Finder allows for keying above or below a line and then returning to the same line.
Line-Space Lever controls the space between lines of text.
Margin Release Key allows the carrier to move beyond the margin stops.
Margin Sets control the beginning and ending of lines.
Margin/Pitch Scale indicates horizontal spaces, shows position of printing point, and shows position of margin sets.
Multiple Copy Control adjusts for insertion of multiple pages (such as carbon packs).
On/Off Control turns the electric power on and off.
Paper Bail holds the paper against the platen.
Paper Centering Scale centers the paper on the platen.
Paper Guide guides the paper into the machine.
Paper Release Lever frees the paper for straightening or removing.
Pitch Identification indicates 10- or 12-pitch type.
Platen (Cylinder) is the large roller around which the paper turns.
Platen Knobs are used to turn the platen by hand.
Position Indicator indicates position of the type element on a line.
Right Shift Key is used to capitalize letters keyed with the left hand.
Shift Lock is used to key all capital letters.
Space Bar spaces the carrier forward one space at a time.
Tab Clear/Set clears and sets tab stops.
Tab Key moves the carrier directly to tab stops.
Type Element is the ball-shaped device containing all the keyboard characters.
Variable Line Spacer returns the carrier to the original text line.

Learn About Software

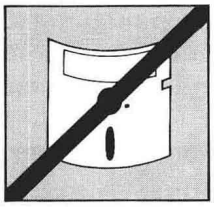
Disks

A **disk** is a magnetic device that is similar to, but slightly smaller than a 45-rpm record. Disks are sealed in a protective jacket. Through holes in the jacket, the disk drive "reads" information from or "writes" information to the disk. Never insert or remove a disk while the red "in use" light of the disk drive is on.

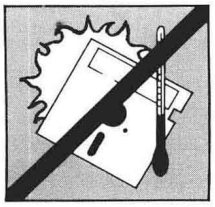
Disks must be handled with care to avoid damaging information stored on them. To avoid damage, follow these guidelines:



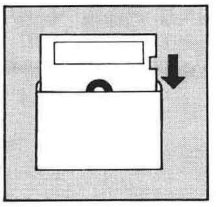
Hold the disk by the corner. Do not touch the exposed recording surface of the disk.



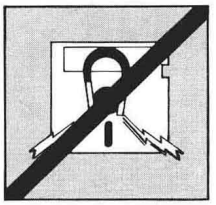
Do not bend or fold the disk.



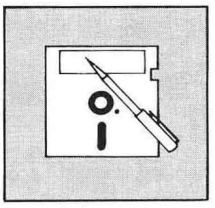
Do not expose the disk to extreme heat or cold. Never store the disk in direct sunlight.



Store disks in their protective envelopes in an upright position away from liquids, dust, smoke, and ashes.



Do not store disks near x-ray devices and magnetic fields such as telephones, dictation equipment, magnets, monitors, and other electronic equipment.



If it is necessary to write on a disk label, use only a felt tip pen. Do not use ballpoints, pencils, or paper clips.

Menus

The **menu** lists the functions a software program can perform. When the microcomputer is operating and a program disk has been inserted properly, a menu will appear on the display screen. A **prompt** will also appear. The prompt tells you what to do to choose a menu option.

Learn About Pitch (Type) and Paper Size

Pitch (Type) Size

Size of type, or **pitch,** is the number of horizontal spaces/characters to an inch. Most printwheels or elements are either 10 pitch (10 characters to a horizontal inch) or 12 pitch (12 characters to a horizontal inch). Some equipment also has 15 pitch (15 characters to a horizontal inch). More advanced software programs and printers may allow you to print in still other sizes. Notice the difference in the three major pitch sizes shown in the next column.

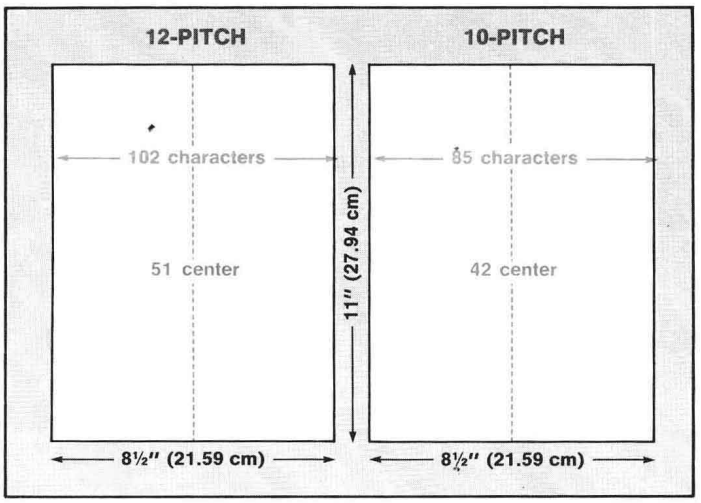
```
This is a sample of 10-pitch type.
This is a sample of 12-pitch type.
This is a sample of 15-pitch type.
```

Paper Size

Standard size paper is 8½ inches wide by 11 inches long (21.59 cm × 27.94 cm). With 10 pitch, there are 85 horizontal spaces across the page (8½ inches × 10 spaces = 85). With 12 pitch, there are 102 spaces across the page (8½ inches × 12 spaces = 102). With 15 pitch, there are 127 spaces across the page.

The center point of the paper for 10 pitch is half the number of spaces in the line, or 42½. Drop the half, and use 42 as the center point. For 12 pitch, the center point is 51. For 15 pitch, the center point is 63.

Standard vertical line spacing is 6 line spaces to 1 vertical inch. Therefore, a sheet of paper 11 inches long (27.94 cm) has 66 lines (11 inches × 6 lines = 66).



Determine the Pitch of Your Equipment

M Microcomputers

Hard copy is text printed on paper. To obtain a hard copy of text prepared on a microcomputer, you must connect the microcomputer to a printer. The two most common kinds of printers are letter-quality printers and dot-matrix printers.

Letter-Quality Printers

Letter-quality printers produce typewriter-quality text. Most letter-quality printers are equipped with either a 10-pitch or a 12-pitch printwheel. However, other pitch sizes may be available. The pitch may be set through the software, usually by an option on the print menu. The pitch is also marked on the face of the printwheel. Determine the pitch of your printer and choose the appropriate pitch selection from the menu. Set your margins to correspond to the pitch of the printwheel.

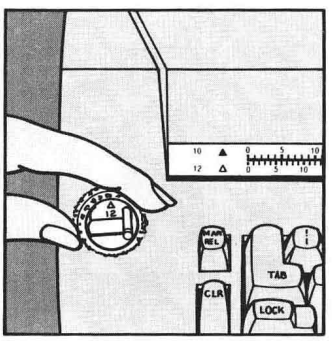
Dot-Matrix Printers

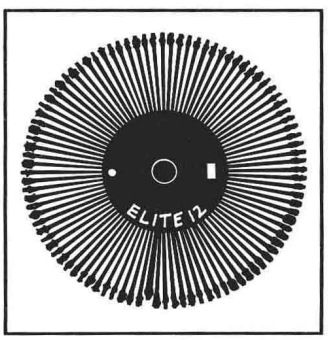
Dot-matrix printers form letters with a series of closely spaced dots. The pitch and style of the letters depend on the software and the kind of printer in use. Many software packages offer a variety of pitch sizes. However, some dot-matrix printers are very close in size to 10- or 12-pitch typewriter type. When using a dot-matrix printer, choose the 10-pitch selection from the menu, and use appropriate margin settings.

T Typewriters

Dual-pitch typewriters can print in either 10 pitch or 12 pitch. When using a dual-pitch typewriter, always check to see if the printwheel or element is 10 or 12 pitch. Set the pitch selector to correspond to the pitch marked on the printwheel or element. Be sure yours is set correctly.

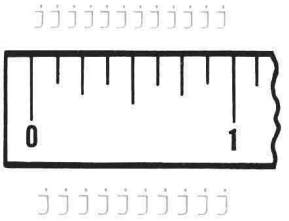
Dual-pitch typewriters also have 10- and 12-pitch margin scales. Be sure to use the proper scale to set the margins for the pitch you are using.





If you are not using a dual-pitch typewriter, align the left edge of the paper with zero on the margin/pitch scale. If the right edge of the paper ends at 85, you have a 10-pitch typewriter (8½ inches × 10 spaces = 85). If the right edge ends at 102, you have a 12-pitch typewriter (8½ inches × 12 spaces = 102).

If your margin scale does not start at zero, key a line of characters and measure off 1 inch. Count the number of characters in the 1-inch space to determine whether you have a 10- or a 12-pitch typewriter.



12-pitch (elite) has 12 characters in 1 inch

10-pitch (pica) has 10 characters in 1 inch

Adjust Your Paper

M Microcomputers

Two kinds of paper may be used in computer printers: Continuous feed and individual sheets of standard-size paper. With continuous-feed paper, the perforation should align with zero, or to the right of the first print position. If your paper cannot be adjusted, adjust your left margin to allow for the extra paper to the left of the perforation.

If your printer uses individual sheets, set the paper guide or align the paper with zero on the paper scale, or with the first print position.

T Typewriters

The paper guide helps you to insert paper into the typewriter so that it is consistently in the same position. The paper guide also helps to keep the paper straight. Adjust the paper guide before you insert a sheet of paper into the typewriter. Slide the paper guide to the left or right so it aligns with zero on the paper guide scale, paper bail scale, or margin/pitch scale.

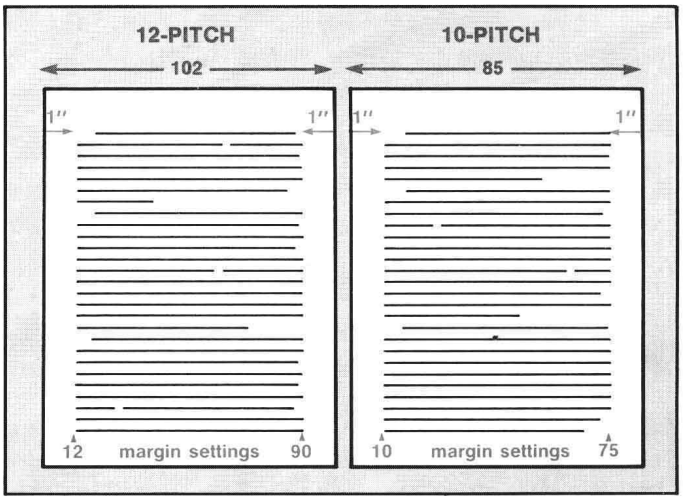
Figure Your Margins

Once you have determined the pitch of your equipment and adjusted the paper, you need to determine where to set the margins. Margins allow you to control the amount of space on either side of the printed line. For most documents, left and right margins are equal in width. For example, reports usually have 1-inch side margins.

To determine margin settings, multiply the number of characters per inch (usually 10 or 12) by the number of inches you want in the side margin. The result is the left margin setting. For example, the left margin setting for a 1-inch margin using a 12-pitch machine is 12 (12 characters × 1 inch = 12). On a 10-pitch machine, the left margin setting is 10 (10 characters × 1 inch = 10).

To get the right margin setting (when margins are equal), subtract the left margin setting from the total spaces across the page. On a 12-pitch machine, the right margin setting for a 1-inch margin is 90 (102 − 12 = 90). On a 10-pitch machine, the right margin is 75 (85 − 10 = 75).

Note: Some software uses line length rather than side margin settings. To determine the line length of a document when margins are given, subtract the left margin from the right margin. For example, if your side margins are 12 and 90, subtract 12 (the left margin) from 90 (the right margin) to get a line length of 78 characters.



Set Your Margins

The following procedures are for most standard kinds of margin sets. If the procedure for setting margins on your computer or typewriter is not given here, refer to the equipment's operating manual or ask your teacher for help.

M Microcomputers

Most software has default (preset) margins. These margins are automatically set when you load the software into the computer. Changing the default margins is usually done in one of the following ways.

Special Command

1. At the left edge of the screen, enter the special command used by your software to change default settings.
2. A prompt appears on the screen and asks you for the desired margin set number.
3. Respond to the prompt by keying in the desired margin settings.

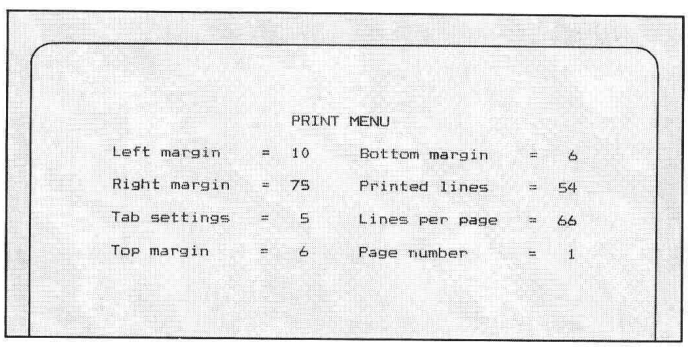
Ruler Line

1. Move the cursor along the ruler line displayed on the screen. A margin symbol will move as you space left or right.
2. When the symbol is at the desired setting, operate the enter/return.

Print Menu

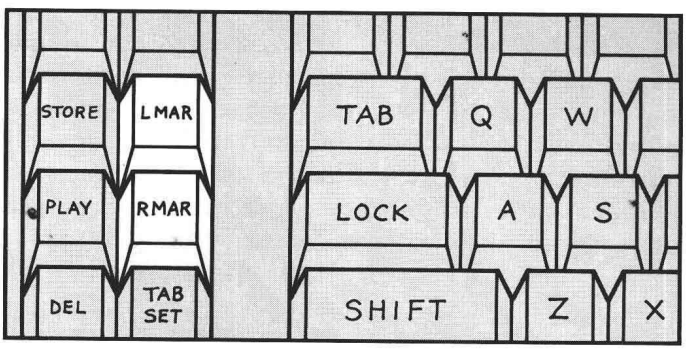
Some software programs require you to set margins when you are ready to print a document.

1. Access the print menu. The print menu lists options for changing margins.
2. Select the option you want to change.
3. Enter the new margin settings.



E Electronic Typewriters

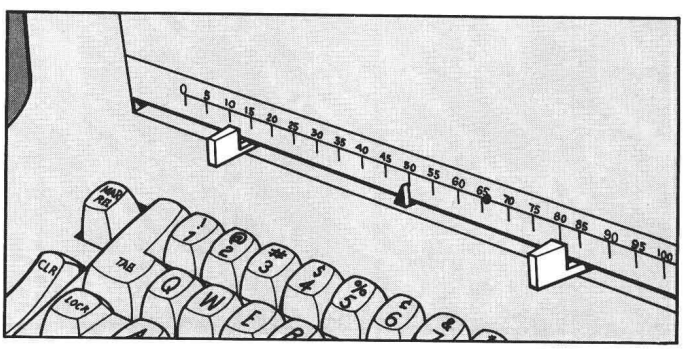
1. Locate the left and right margin-set keys on your keyboard.
2. Move the printwheel or element to the desired setting for the left margin. (You may need to use the margin release to move past a previously set margin).
3. Press the appropriate margin-set key.
4. Follow the procedure outlined above to set the right margin.



T Element Typewriters

1. Push in the left margin-set lever.
2. Slide it to the left or right to the desired setting on the margin/pitch scale.
3. Release the lever.
4. Repeat this procedure to set the right margin.

Note: You may have to move the carrier to the right before you can slide the margin set past the position indicator.



Set Your Tab Stops

The tab key is used to move the cursor/carrier directly to a specific position on a line.

M Microcomputers

Use the method required by your program to set new tab stops. The two most common methods of setting tab stops are as follows:

Special Command

1. Give the tab set command for your program.
2. When the prompt asks for a column number, key in the column number for the first tab setting.
2. Repeat this procedure to set the remaining tab stops.

Ruler Line

1. Access the ruler line.
2. Move the cursor to the first desired tab position.
3. Press the appropriate key for setting tabs (usually the tab key or the letter T).
4. Repeat this procedure to set the remaining tab stops.

T Typewriters

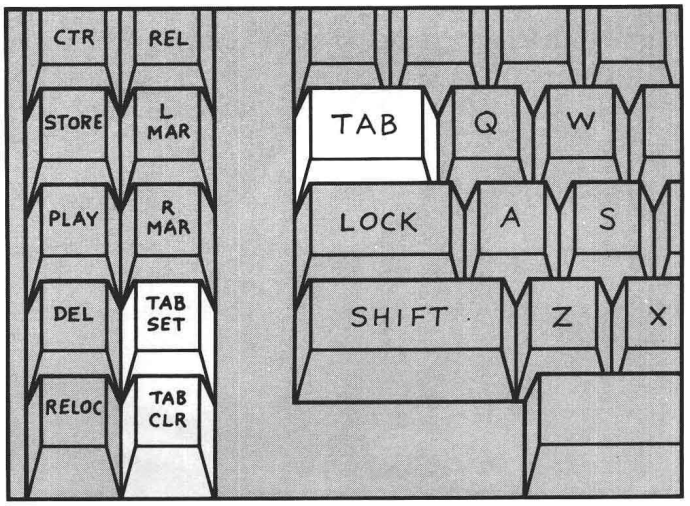
Before you set tab stops, clear any previously set tab stops.

To clear all tabs at once, check your typewriter to see if it has a total tab clear key. If it does, press the total tab clear key to clear all tab stops.

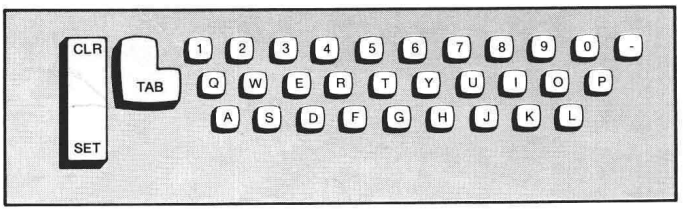
If you have an element typewriter, move the carrier to the far right. Hold down the tab clear while you return the carrier.

To clear tab stops one at a time, move the carrier to the left margin. Tab to the first stop and press the tab clear. Continue this procedure until all tab stops are cleared.

To set a tab stop, move your carrier to the desired position and press down the tab set.



Electronic Typewriter



Type Element

Set Your Line Spacing

When you select single spacing (SS), text appears on every line. When you select double spacing (DS), one blank line is left between printed lines. When you select triple spacing (TS), two blank lines are left between printed lines, and so on, as shown in the following illustration.

```
1 single    double    triple    quadruple
2 single    blank     blank     blank
3 single    double    blank     blank
4 single    blank     triple    blank
5 single    double              quadruple
```

M Microcomputers

Most software programs use a default line-space value of 1 for single spacing. Line spacing may be set on the ruler line, or may be an option of the print menu. To change the default setting, you may need to use a command or enter the desired setting.

T Typewriters

On some typewriters, the line-space selector/lever can be set on 1 for single spacing, or 2 for double spacing. Some machines also have settings for triple spacing and for half-line spacing (1½ or 2½). The settings may be indicated by a light on the line-space selector, or by notches or numbers beside the line-space lever.

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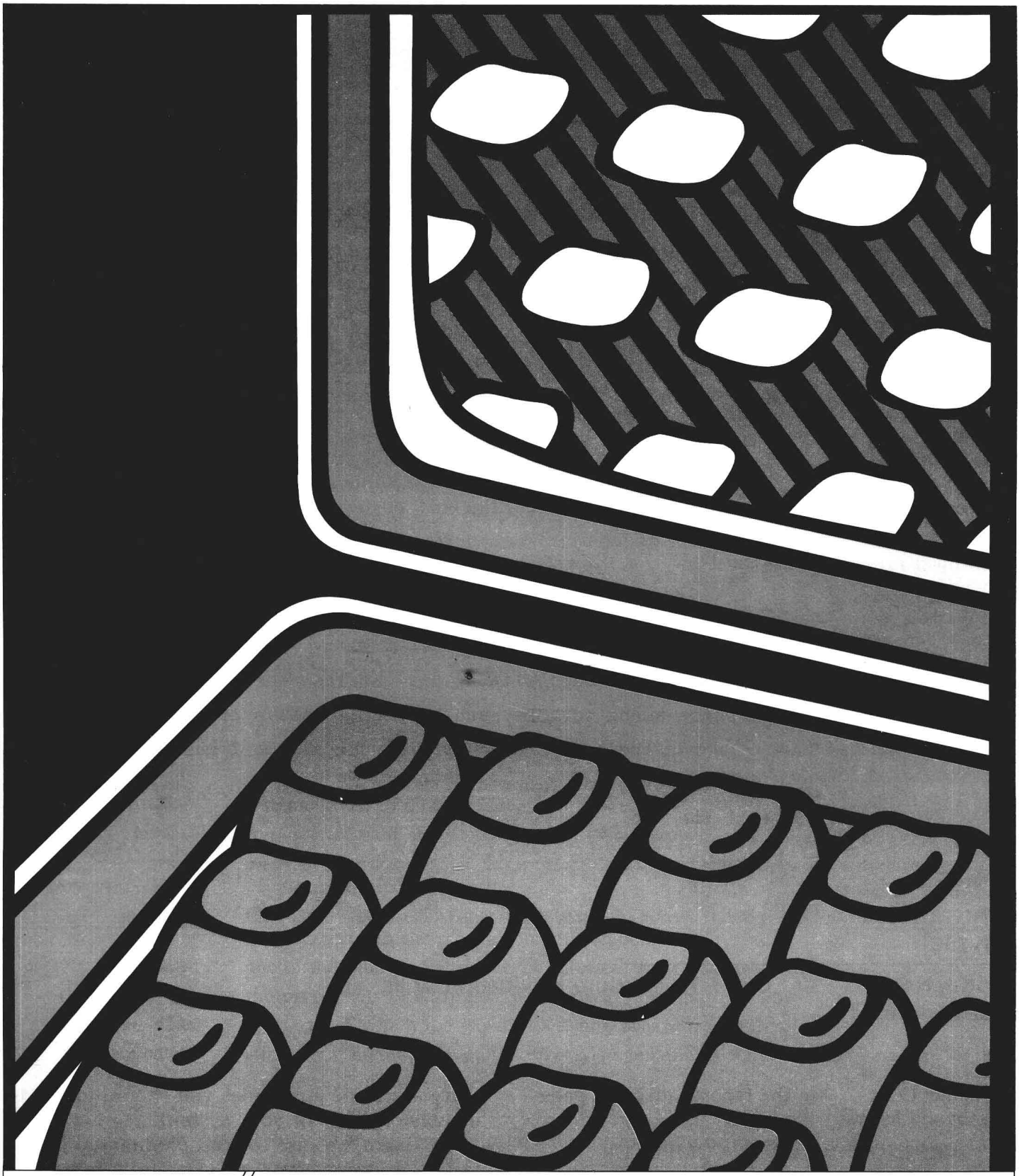

Part 1 Developing Keyboarding Skills

Lessons 1–32