COMPUTER PROGRAM
TOUCH TYPING

Model CX4110
Use with
ATARI® 400™ or ATARI 800™
PERSONAL COMPUTER SYSTEMS
TABLE OF CONTENTS

GENERAL INFORMATION

LOADING THE PROGRAM

HOW TO USE THIS MANUAL

1 GENERAL DESCRIPTION
   A. PROGRAM ORGANIZATION
      Typing Errors
      Word Error Count
      Letter Error Count
      Typing Speed
   B. BEGINNING TYPING
      Drills
      Fingering for Typing
      Instruction Keys
      Oops!
      Typing a Drill
      Typing Mistakes
      Word Errors
      Typing Speed
   C. INTERMEDIATE TYPING
      Drills
      Instruction Keys
      Typing a Drill
      Word Error Counts
      Letter Error Counts
      Worst Letter
      Speed Check
   D. ADVANCED TYPING
      Drills
      Instruction Key
      Typing a Drill

2 SAMPLE SESSIONS WITH
THE ATARI TOUCH TYPING CASSETTES
   A. BEGINNING TYPING
   B. INTERMEDIATE TYPING
   C. ADVANCED TYPING

3 QUICK GUIDE TO KEYBOARD INSTRUCTIONS

BIBLIOGRAPHY

GENERAL INFORMATION

AGE RANGE: Ages 10 Through Adult

The program allows the user to:
   • Learn touch typing
   • Increase typing speed through practice

It develops skill in:
   • Auditory and visual perception
   • Memory retention
   • Speed typing
   • Finger dexterity

It encourages:
   • Experimentation and exploration
   • Interest in creative writing
   • Neatness in presentation
   • Accuracy in perception
   • Attention to detail

Categories of use are:
   • Education
   • Recreation
   • Personal development

Number of Users: 1

An ATARI® 410™ Program Recorder and 16K of Random Access Memory (RAM) are required to run the cassettes.

LOADING THE PROGRAM

Equipment Required:
1. ATARI 800™ or ATARI 400™ Personal Computer System with
   • A minimum of 16K RAM (The ATARI 400 Personal Computer System can be upgraded to 16K at an authorized service center.)
   • ATARI BASIC (Computing Language) Cartridge (Model No. CXL4002)
2. ATARI 410™ Program Recorder
3. ATARI TOUCH TYPING Program Cassette

Installation and Loading

Side 1 of Cassette A contains the BEGINNING TYPING program. Side 2 of Cassette A contains the INTERMEDIATE & ADVANCED TYPING programs.

Sides 1 and 2 of Cassette B contain Practice Texts for the ADVANCED TYPING program.

1. Connect your ATARI 800 or ATARI 400 Personal Computer System to your television set as instructed in your Operator's Manual.
2. Make sure the ATARI 410 Program Recorder is properly connected to the computer console, and to a wall or power outlet. (See your Program Recorder Operator's Manual for further details, if necessary.)

NOTE: If you have "daisy-chained" peripherals to your computer console, and do not wish to disconnect them, connect your ATARI 410 Program Recorder to the I/O CONNECTOR of the last unit in the chain.

3. Make sure that at least 16K of RAM is installed in your ATARI Personal Computer System. See your ATARI 800 Operator's Manual for Memory Module loading instructions, if necessary.

4. Insert the ATARI BASIC (Computing Language) Cartridge into the computer console cartridge slot. (Insert in the LEFT CARTRIDGE slot on the ATARI 800 Personal Computer System.)

5. Turn on your television set.

6. Turn on your ATARI Personal Computer System by pressing the POWER switch on the right side of the console to ON.

7. If all equipment is properly connected and powered up, your television screen should be displaying the READY prompt, with the white square cursor immediately below.

See NOTE 2 at the end of these Installation and Loading instructions if you have loading problems.

8. Press OPEN on your ATARI 410 Program Recorder to open the cassette door.

9. Hold the TOUCH TYPING Program Cassette A so that Side 1 is up and the tape leader is facing you.

10. Slide the cassette into the cassette holder and close the door.

11. If necessary, press REWIND and rewind the tape to the beginning. When the tape is rewound, press STOP/REWIND.

12. Type LOAD on the console keyboard and press the ENTER key.

13. When the beep sounds, press CROWN on the Program Recorder and press CROWN again.

14. Wait for the operating system to load the program.

15. When the READY prompt appears on the screen again, type RUN and press ENTER on the console keyboard. The ATARI logo and the message LOADING TOUCH TYPING appear on the screen.

16. A second beep will sound and the computer system will automatically load the BEGINNING TYPING program. When loading is complete, the screen will display the BEGINNING TYPING display with the message LET'S PRACTICE.

Additional directions for using Side 2 of ATARI's TOUCH TYPING program Cassette A and Sides 1 and 2 of Cassette B are provided in the step-by-step procedures for INTERMEDIATE & ADVANCED TYPING. See PART TWO: SAMPLE SESSIONS WITH THE ATARI TOUCH TYPING Cassettes.

NOTE 1: If an ATARI Disk Drive is connected to the computer, the Disk Operating System and system software use some of available RAM. This overhead needs to be taken into account when calculating the amount of RAM required to run a program.

NOTE 2: If you have problems loading the program, and if you have other peripherals in addition to the Program Recorder attached to the computer console, try disconnecting the other peripherals and connecting the Program Recorder directly into the console to isolate the problem. If loading problems persist, consult the ATARI 410 Program Recorder Operator's Manual.

HOW TO USE THIS MANUAL

This manual is in three parts. PART ONE is a general description of the ATARI TOUCH TYPING program. PART TWO is a step-by-step tutorial describing how to use the TOUCH TYPING program. PART THREE briefly describes the instruction keys you'll use in the TOUCH TYPING program.

The best way to use this manual is to read all the way through PART ONE before going on to the step-by-step instructions. PART ONE provides details you need to know to understand and use PART TWO effectively. The information is presented in building-block fashion, and you'll need to read each section thoroughly before you go on to the next one.

After you have read PART ONE, follow the instructions in PART TWO. It takes you through some sample sessions and shows you exactly how to use the TOUCH TYPING program cassette. You will probably need to refer back to PART ONE occasionally while you're using PART TWO, to refresh your memory.

PART THREE is provided as a quick reference to use after you're familiar with the TOUCH TYPING program. You may need to use the summary in PART THREE once in a while to find out what happens if you push a certain instruction key on the console or keyboard.

1 PART ONE

GENERAL DESCRIPTION

The ATARI TOUCH TYPING program cassette teaches you how to type on a standard typewriter or a console keyboard at increasing speeds and without looking at your fingers. The keys on the computer console are arranged in the same order as the keys on most typewriters so that you don't have to relearn the fingering when you transfer back and forth from the console to the typewriter.

The ATARI TOUCH TYPING program is on Cassette A and is accompanied by a second cassette containing practice material for more skillful typists.

A. PROGRAM ORGANIZATION

The ATARI TOUCH TYPING program is in two levels:

- BEGINNING TYPING (Side 1 of Cassette A)
- INTERMEDIATE & ADVANCED TYPING (Side 2 of Cassette A)

The program presents a series of typing drills for three levels of skill: Beginning, Intermediate, and Advanced.
BEGINNING TYPING starts with drills consisting of three-character groups—first the letters of the alphabet (A-Z), then the numeric characters (1-9 and 0), and finally the symbols and punctuation marks. The characters are not in sentences or words; they are arbitrary character combinations presented for practice only.

INTERMEDIATE TYPING involves sentence drills. The only non-alphabetic character used in INTERMEDIATE TYPING is the period.

ADVANCED TYPING consists of full paragraphs and all symbols and punctuation marks.

For BEGINNING TYPING, you need only:
- Side 1 of Cassette A

For INTERMEDIATE TYPING, you need:
- Side 2 of Cassette A

For ADVANCED TYPING, you need both cassettes in the set:
- Side 2 of Cassette A

The Practice Text cassette (Cassette B)

It is practical to load the Practice Text cassette (B) every time you load Side 2 of the program cassette (A), so you can switch between INTERMEDIATE & ADVANCED TYPING whenever you want. (Refer to the loading instructions in PART TWO.)

If you are just learning to type, start with BEGINNING TYPING; if you already know how to type, but want to increase your speed, select either INTERMEDIATE or ADVANCED TYPING for practice. Progress at your own speed—as quickly or as slowly as you want—and repeat drills if you make a mistake, or go on to the next.

Typing Errors

The ATARI TOUCH TYPING program checks for three kinds of typing errors:
- Mistypes—incorrectly typed characters
- Extra characters
- Missing characters

When you finish typing an individual drill, pushing returns causes a screen display that shows mistyped words in a different color. If you omit a word in INTERMEDIATE or ADVANCED TYPING the screen displays the word you omitted in black on a colored background (this is called inverse video). At the bottom of the screen, the program displays the total number of errors you made in the drill as well as your typing speed, along with the message RETURN TO CONTINUE. (In INTERMEDIATE & ADVANCED TYPING, the screen also displays the letter you most frequently mistyped in the exercise.)

Word Error Count

During the time you're practicing drills (and making mistakes), the program counts the words in which you made mistakes. The count is always zero at the beginning of each drill. The program counts one error for each word you mistype. When you complete a drill and push returns, the program displays your total error count at the bottom of the next screen.

Letter Error Count

In INTERMEDIATE & ADVANCED TYPING, the program counts one error for each letter you mistype as well as for each word. It totals your errors for each letter while the EVALUATING message is being displayed, then determines the letter you most frequently mistyped and displays the letter at the bottom of the screen after WORST, which always shows the letter you had the most trouble with in the drill you just finished. In INTERMEDIATE TYPING the program remembers letter errors from past drills, too, and gives you drills containing the letters with which you had trouble. This is explained in more detail in the section describing INTERMEDIATE TYPING.

Typing Speed

At the start of any drill, as soon as you strike a key that produces a letter, a number, a punctuation mark, or a symbol, the program begins timing you. (Keys with instructions on them, such as ^ and _, do not initiate timing.) At the end of the drill, the program calculates your typing speed in words per minute (WPM) and displays your score at the bottom of the screen.

B. BEGINNING TYPING

In BEGINNING TYPING (Side 1 of Cassette A), the drills consist first of alphabetic letters, then numeric characters, then the symbols and punctuation marks. In the alphabetic drills, the screen displays sets of three letters from the left side of one row of typewriter keys for the left hand, then three-letter sets from the right side of one row of typewriter keys for the right hand. This process is alternated for the left and right hands until all rows and all 26 letters are covered. At this point the screen displays randomly chosen letters for both hands to practice, again in three-letter sets. Only uppercase (capital) letters are used in BEGINNING TYPING. The program is set to produce uppercase letters automatically.

When all the alphabetic exercises are finished, the program proceeds through the numeric drills, and then the symbol and punctuation drills, in the same way.

Drills

The screen display for any drill shows the five-character pattern on the keyboard, the three characters that are to be practiced, the hand that is to be used, the exact order in which you are to type the characters, and the spacing you are to use.

The order in which the program presents the alphabetic character patterns to be practiced is this:

- ASDFG (for the left hand)
- HJKLM (for the right hand)
- QWERT (for the left hand)
- YU IPO (for the right hand)
- ZXCVB (for the left hand)
- NMHJK (for the right hand)

The program selects the first three characters from the first pattern and displays five three-letter combinations to be practiced. Then it takes one of the letters from the previous three-letter group, adds the remaining two letters you haven't practiced yet, and displays five combinations of those three letters. After you've finished these two drills, the program repeats them. In the ASDFG row, for example, the sets are:

<table>
<thead>
<tr>
<th>ASD</th>
<th>SDS</th>
<th>DSD</th>
<th>SDA</th>
<th>DAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGD</td>
<td>GGD</td>
<td>DGD</td>
<td>GDF</td>
<td>DFG</td>
</tr>
<tr>
<td>ASD</td>
<td>SDS</td>
<td>DSD</td>
<td>SDA</td>
<td>DAS</td>
</tr>
<tr>
<td>FGD</td>
<td>GGD</td>
<td>DGD</td>
<td>GDF</td>
<td>DFG</td>
</tr>
</tbody>
</table>
After it has given you practice drills for all the three-letter combinations in the first pattern, the program continues the same process with the next pattern (HJKLH), and so on through the rest of the five-letter patterns.

When all the letters have been presented, three at a time, and you've finished the accompanying drills, the program selects sets of five different letters at random from the keyboard, and displays them, three letters at a time, for practice with both hands.

The numeric drills are then shown in the same manner as the five-letter patterns, as follows.

- **12345** (for the left hand)
- **67890** (for the right hand)

The numbers are given in three-digit sets for one hand, as they were for the letters, and are followed by three-digit sets from randomly chosen five-character practice combinations for both hands.

In the symbol and punctuation drills, the program presents the characters on the upper halves of the number keys in the same manner as for the letter and number drills, then the semicolon, comma, period, and question mark, and then all the characters in the random drills. After you've gone through all the symbol and punctuation drills, the program returns you to the alphabetic letters (ASDFG) at the start of the BEGINNING TYPING program.

**Fingering for Typing**

The fingering described below is only a general guide. If you've never typed before and plan to use a typewriter as well as the computer console, it would probably be to your advantage to consult a book about the mechanics of the typewriter for margin setting and use of the typewriter fixtures. The bibliography at the end of this manual lists a few such books, and your local library has others. The basic fingering, however, is the same for the computer console as it is for the typewriter.

The keyboards for both the computer console and the typewriter are divided into two sections by an imaginary diagonal line. The following illustration of the console keyboard shows the division.

All the keys to the left of imaginary line are for left-hand use, and all the keys to the right of the line are for right-hand use.

The screen for the BEGINNING TYPING drills shows the keyboard separated into the left- and right-hand sections. It also indicates whether the letters in the drill (shown below the keyboard) are for the left hand or the right hand.

In the following illustration, the small number under each key and the numbers at the ends of the fingers indicate standard fingering that is taught for touch typing in schools. You are not obligated to use it, but you will probably increase your typing speed faster if you do.

Each of the fingers in the illustration also shows a character at the base of the fingernail. Whenever you begin a typing session, place your fingers on the keys shown for the fingers in the illustration (ASDF for the left hand, and JKLI for the right hand). This is your home position—the row of keys from which you stretch your fingers up, down, and sideways to reach the other rows and keys. After a few sessions this position will become more comfortable and will seem natural to you.

Unfortunately, the longest stretches must be made by your fourth fingers. But take heart—your fourth fingers will become stronger with practice, and eventually the keys won't seem so far apart as they did at first.

**Instruction Keys**

In the illustration shown for fingering, only the keys containing the letters, numbers, symbols, and punctuation marks are shown. You also need to know about the instruction keys used in BEGINNING TYPING drills before you can start typing from the computer console.

The following illustration shows four additional keys: the space bar (the long bar at the bottom of the keyboard), two shift keys, and the return key.
SPACe BAR

• Use the space bar to put spaces between the letter groups when you're typing the drills. Press the space bar with your right thumb.

• Press the 1 key and hold it down while you're typing the symbols and punctuation marks shown on the upper half of the screen. Fingering for the symbols and punctuation characters is the same as for the numbers, symbols, or punctuation marks shown below them on the same key. Press the 1 key with the index finger of the hand opposite the one you use for the symbol or punctuation mark.

• Use the 1 key only when the display instructs you to, and be sure to push it only once. In normal typing, the 1 key returns you to the beginning of the next line so you can continue typing, but in BEGINNING TYPING the 5 key causes the program to return a screen displaying the errors you typed (in a different color). Since the ATARI computer console keyboard contains several special function keys, the 5 key is farther away from the character keys than it is on a standard typewriter keyboard. If you are already familiar with the typewriter keyboard, you may accidentally press the wrong key when you're reaching for it.

• 1 key. Hitting the ATARI logo key causes a buzzer to sound when you try to type the next character. Type the character you want again—it works the second time around.

(If you leave the program for a long time and the screen begins to change color every few seconds, don't worry. The operating system in your computer is designed to do this so that image shadows won't permanently mar your television screen. Typing 1 restores the screen to its original colors.)

DRILL When either of these messages appears at the bottom of the screen, the program does not allow you to type in characters. You must push either the 5 key or the 1 key. The program does not accept 5 while it is displaying the 5 message on the screen, but it accepts 5 at all times.

Pushing 5 at the end of any drill causes the screen to display the same drill with your error results shown. If you made a mistake or did not complete the drill, the words you typed incorrectly are displayed on the return screen in a different color, and the words you omitted are shown on the return screen's TYPE line in a different color. If you didn't make any mistakes, all the characters you typed are displayed in the same color as those shown in the program's TYPE line. If you press 5 again, the program displays the next drill.

Pushing 5 on the computer console always causes the next five-character pattern to be displayed. You can push 5 any time except when the screen is displaying the 5 message. If you want to advance to the next pattern, either by interrupting the current exercise or at the completion of the current one, press the 5 key. If you want to skip one or more patterns, hold 5 down until you obtain the one you want. Holding 5 down causes the program to run through all the BEGINNING TYPING patterns, starting with the pattern following the one you just worked on and continuing until you release the 5 key.

After you've typed enough drills to accustom yourself to the fingering, begin working on your rhythm. Some character groups are easier to type than others, and because of this, beginning typists often type them more rapidly than other characters. Professional typists, however, press all the keys with uniformly smooth, even strokes. The sooner you start to develop an even typing rhythm, the more rapidly you'll be able to increase your speed.

Typing Mistakes

In BEGINNING TYPING, the program treats each of the three-character sets you type as a word. An error consists of an incorrectly typed word; multiple errors within a single word count as one error. Any time you type one or more characters incorrectly in a word, the screen displays the error word in a different color in the return display.

Typing mistakes are counted against you in the error count record that the program maintains. Your accumulated error count for the drill is then used as a base to calculate your typing speeds in words per minute. When you've finished typing a drill, the bottom of the screen displays the number of words you mistyped after ERRORS: your typing speed after WPM:, and the 5 TO CONTINUE instruction.
Word Errors

The BEGINNING TYPING program compares the text you type, word for word, against the text in the drill displayed for you to copy. If you type a word incorrectly, it highlights the mistyped word on the return screen.

If you leave out a word or type an extra one, the program checks the next two words in your drill to decide which of these things you did. If it still can't find the word it's looking for, the program knows you've missed typing the word, and highlights that word in the TYPE: text. The following example illustrates a missing word (the typist gets one error for this).

**TYPE:**
ASD SDS DSD SDA

**YOU:**
ASD DSD SDA DAS

If the program finds the word it's looking for in the next one or two words you type, it determines that you've typed an extra word or two and highlights the word (or words) in a different color in the text you typed. In the drill below, the typist gets three errors—one for a missing word (DAS), one for an extra word (ASD), and one for a mistype (DSD).

**TYPE:**
ASD SDS DSA DSA

**YOU:**
ASD DAS SDS DSD

C. INTERMEDIATE TYPING

In INTERMEDIATE TYPING (Side 2 of Cassette A), the program follows most of the rules described for BEGINNING TYPING and introduces some new ones. Changes and additions to the BEGINNING TYPING functions and procedures are given below.

Drills

Drills consist of full sentences ending with a period. The period is considered part of the word it follows. Alphabetic letters and the period are the only characters used in INTERMEDIATE TYPING. Two pushes of the CLEAR key or a period followed by one CLEAR ends your typing input for each drill.

INTERMEDIATE TYPING allows a maximum of six lines of typed input for each drill. If you try to exceed six lines, a buzzer sounds.

Instruction Keys

INTERMEDIATE TYPING uses the same instruction keys described in BEGINNING TYPING, but it uses two of the instruction keys in a different way:

- **CLEAR** Hold the CLEAR key down to type a capital letter. Unlike BEGINNING TYPING, INTERMEDIATE TYPING accepts both uppercase and lowercase letters. You need the CLEAR key because the INTERMEDIATE TYPING program automatically causes typing to be in lowercase letters. You will notice that several of the practice sentences in INTERMEDIATE TYPING use capital letters at the beginning of some words—usually in the first word of the sentence and in the names of people.

Remember that the CLEAR key is further away from the character keys on the ATARI computer console keyboard than it is on a standard typewriter keyboard.

The keys available to you for the INTERMEDIATE TYPING exercises are shown in the keyboard illustration below.

Typing a Drill

In INTERMEDIATE TYPING remember that you must copy each drill exactly as the program shows it, even if the sentence is not grammatically or syntactically correct. The words in each drill are randomly selected from long lists of nouns, pronouns, verbs, and other parts of speech, and are put together in a randomly selected sentence structure. Some of the sentences may seem a little odd—questions, for example, end with a period instead of a question mark—but the exercises are designed to give you experience in copying accurately and help you build your speed, not to teach you grammar and punctuation.

Lines in INTERMEDIATE TYPING are a maximum of 37 characters long; the 38th position on the line is reserved for CLEAR. A beep sounds five characters before the end of a line. If you try to type a character in position 38, a buzzer sounds. If you accidentally type beyond the last word shown in the program sentence, you cannot hyphenate or backspace to try to correct your mistake. The program has already recorded the error. A buzzer sounds if you reach the end of the line or try to backspace.

Word Error Count

Each time you type a word incorrectly, the program adds 1 to your word error count. If you forget to type the period after the last word in the sentence, the program treats the word as an error word and adds to your word error count.

Letter Error Counts

In INTERMEDIATE and ADVANCED TYPING, the program counts one error for each letter you mistype. It totals your errors for each letter while the EVALUATING message is being displayed and adds the error count for each letter to a history file. The program retains these letter error counts in the history file whether or not you erase a new drill. The return screen displays the message LET'S WORK ON: followed by the letter you most frequently mistyped. The accompanying drill contains the letter with the highest error count in several words of the sentence. If you type this sentence correctly, the program updates the error count for that letter with the second highest error count, and so on until you've restored all the letter error counts to zero. If you make a mistake in typing any sentence presented in a LET'S WORK ON: drill, the program adds to the error count for the letters you mistyped and continues returning LET'S WORK ON: screens until you've cleared all the letter error counts in the history file. You can push the CLEAR key at any time during the program; it returns you to the first screen in the program and clears the letter error counts in the history file.

Worst Letter

At the end of each drill, the program also calculates the number of letter errors you made for that specific drill, determines the letter you most frequently mistyped, and
displays it at the bottom of the screen after WORST:. This letter is not the letter with the highest error count in the history file—it is the letter with the highest error count in the drill you just typed. In this way you can correct your typing weaknesses first. If you typed the drill without any mistakes, the program remembers any other errors you made along the way by checking the history file, and returns screens that enable you to correct your past weaknesses.

After you complete a drill and push the OK key, the program displays a message EVALUATING at the bottom of the screen; adds up your error letter counts for that exercise, and returns a screen showing the letter you made the most mistakes with after the message WORST:

Suppose the screen displays the following drill:

**TYPE:**

Will Senator Sims benefit the condition.

And suppose you make a few mistakes when you type the drill.

**YOU:**

Widd Senator Sims benefit the condition.

The program will penalize you for two errors on the letter L, one error for the letter T, and one error for the letter O, and it will display L after WORST:. When you press the OK key, it will display LET'S WORK ON: L and a sentence with the letter L in a lot of the words, since you mistyped that letter most often. After you type that practice sentence correctly, the program will return a sentence containing one of the other letters (T or O) in several words—if the program has the same error count for two or more letters, it arbitrarily selects one of them for the next practice drill. When you type that drill correctly, the program continues with the other letters with the same error count until their error counts are all restored to zero, then goes to the next batch of letters with the next lower error count, and so on. After you type all the practice drills for all the error letters correctly, the program generates a new random sentence for the next drill, since all the letter error counts are zero.

The screen displays other messages besides your worst letter after WORST:. If you don't type anything at all for a drill and push the OK key, it displays MANY. If you don't make any mistakes, it displays NONE. If you omit the period at the end of the sentence, type in an extra word, omit a word, type over the end of the line, or add an extra letter at the end of a word, it displays OTHER.

If you omit the letter a when it stands alone, the program treats it as a word error, rather than a letter error, and adds to the error word count.

If you select another drill before you fully correct the current practice drill, the program retains the error letter counts and goes back to send you the drills for the still uncorrected letters after you complete corrections for the new drill. The only way to clear the letter error counts to zero is to push the OK key and terminate the program.

**Typing Speed**

The program starts timing you as soon as you type a character on the screen. For every mistake on an INTERMEDIATE TYPING drill, the program subtracts five points from your timing score. At the end of the drill, the program posts the message EVALUATING at the bottom of the screen while it calculates your typing speed in words per minute and displays it after WPM:. You can immediately see whether your typing speed is improving.

**Speed Check**

The TEMPO option in the program encourages you to build up rhythmic, even typing patterns, and allows you to test whether you can type at a specific WPM rate. To use the option, push the HOME key on the console when the screen displays OPTION = TEMPO at the bottom of the screen. The screen then displays a message asking what WPM you want. You must respond with a WPM speed from 60 through 100; if you type in 9 or below or 80 or above, you will hear a buzzer. If you type any other character rather than a number, it appears on the screen in a different color. Once you press HOME, you must enter a valid typing speed before you can start typing a drill.

When the program receives your WPM speed instruction, it sets an electronic rhythm, similar to a metronome beat, at the WPM rate you've selected. Each beat represents one keystroke (not one word). If you can type a character each time you hear a beat, you're typing at the tempo you selected, as well as in the even rhythm that professional typists use. If you're not typing on the beat, your speed is either faster or slower than the tempo you selected, or you are typing your characters in uneven clusters.

While the EVALUATING message is displayed, the program calculates your WPM rate, and the TEMPO rhythm temporarily stops. It resumes when the next drill appears on the screen.

You can change your requested WPM tempo in the middle of a drill or at the beginning of a new drill by pushing HOME again. The program calculates your current WPM and displays it at the bottom of the screen after the message LAST WPM WAS... along with the message WHAT WPM 10-80?

When you type in a new tempo, the beat changes to the newly requested WPM beat and you continue the drill. It's suggested that you select a tempo five to ten beats higher than the previous one, or if the former speed was too fast, five to ten beats slower.

To get out of the metronome mode at any time, press HOME once. The beat continues as long as you hold HOME down, but stops as soon as you release the key.

**D. ADVANCED TYPING**

ADVANCED TYPING (Side 2 of Cassette A and the Practice Text on Sides 1 and 2 of Cassette B) is like INTERMEDIATE TYPING several ways. The program keeps error word and letter counts in much the same manner, calculates your WPM rate the same way, and handles the TEMPO option as it does for INTERMEDIATE TYPING.

ADVANCED TYPING differs from INTERMEDIATE TYPING in the kind of drills it gives you, in the use of the Home instruction key, and in the rules you must follow while typing a drill. The LET'S WORK ON drills are not used in ADVANCED TYPING.

**Drills**

ADVANCED TYPING gives you full paragraphs as drills, and uses all the symbols and punctuation marks. All the keys used in the ADVANCED TYPING drills are shown in the following keyboard illustration.
A number of paragraphs in the drills relate to specific professions such as medicine and law. Some paragraphs use only the keys for the right hand, and some use only the keys for the left hand. The longest word for the left hand in the paragraphs is stewardesses. The longest word for the right hand is hoppity. You must type the drills exactly as you see them, just as you did in INTERMEDIATE TYING. When you see a hyphenated word in ADVANCED TYING, you must hyphenate the word in your typed copy.

The paragraphs displayed in ADVANCED TYING become increasingly more difficult as you progress through the exercises. General paragraphs are presented first, and then those geared to specific professions. (You're sure to increase your vocabulary!) The program keeps 150 paragraphs on hand for you to type. Each paragraph is six lines long.

**Instruction Key**

Use the key for capital letters the same way it was used in INTERMEDIATE TYING. You also need to use the key for the symbols and punctuation marks shown on the upper halves of some keys, as you did for BEGINNING TYING.

**Typing a Drill**

In an ADVANCED TYING drill, you must type the whole paragraph correctly before you advance to the next paragraph. The program keeps returning the same drill until you've typed it exactly as it is shown on the screen. Your lines must end in the same place as those on the screen. You cannot hyphenate a word unless the drill shows a hyphen in the same place. All the capital letters, symbols, and punctuation marks displayed on the screen must appear in the same places in your typed copy. The program treats all symbols and punctuation marks as part of the word they are used with, and adds to your error word count if any of them are missing or incorrect. It also counts a word error if you forget to capitalize where the drill shows an uppercase letter or if you capitalize a letter the drill shows as lowercase.

When you push the key at the end of a drill (sometimes you need to press twice), the program displays EVALUATING at the bottom of the screen, then returns a screen showing your error count for words, your WPM speed, and your worst letter. The words you typed incorrectly are highlighted. Letter error counts are accumulated in the same way as they are in INTERMEDIATE TYING, but if you continue retyping each ADVANCED TYING paragraph drill until you have typed the entire paragraph correctly, your error letter count will be zero for all letters when you go on to the next drill.

If you make four or more consecutive word errors—for instance, if you leave out an entire line from the paragraph—the program cannot calculate the exact number of errors and returns either MANY after ERRORS, or a confusing error count (MANY is more likely to occur).

**SAMPLE SESSIONS WITH THE ATARI TOUCH TYING Cassettes**

The following sections take you through three sample sessions with the ATARI TOUCH TYING program: one for BEGINNING TYING, one for INTERMEDIATE TYING, and one for ADVANCED TYING. Each session is presented as a step-by-step procedure so that you can carry out the step immediately on the computer console. You may need to refer back to PART ONE of the manual for details as you go through the procedures.

**A. BEGINNING TYING**

Before you start, be sure you are inserting Side 1 of Cassette A. Side 2 contains the INTERMEDIATE and ADVANCED TYING drills.

Insert Side 1 of Cassette A in the ATARI Program Recorder and load the program as instructed in steps 11 through 16 of the Installation and Loading Instructions.

**Drills**

After you type RUN on the computer console, the first screen for the alphabetic drills is automatically displayed. It looks like this:

![Screen shot](image)

Some electronic tones play when this screen is showing and the letters you're to practice on the keyboard flash on and off along with the tones. The letters are all for the left hand.

The screen automatically changes in a few seconds, and the next screen again displays the keyboard, but the information underneath is different.

The screen displays various combinations of the first three letters of the ASDFG letter group under TYPE. This is the drill you are to type on the keyboard.

Position the fingers of your left hand in the home position described earlier (on keys ASDF) and your right thumb on the space bar. Type the letters exactly as the screen shows them, putting one space between each letter group. Press the at the end of the drill.

If you typed the drill correctly, the next screen will show the same drill with the characters you typed in the same color as those shown in the program's TYPE line, along with your WPM typing speed. Push to go on to the next drill.
If you make a mistake, the return screen will display your errors in a different color, along with the number of errors you made, your WPM typing speed, and the message RETURN TO CONTINUE.

When the computer finishes loading the program, it displays a screen showing INTERMEDIATE LEVEL and ADVANCED LEVEL and flashes a message at the bottom of the screen asking you to CHOOSE ONE as shown in the diagram. The first letter of INTERMEDIATE and the first letter of ADVANCED are in a different color from the rest of the letters in the words.

Push RETURN again. The screen displays the same drill. Retype the drill. If you type the remedial drill correctly, do one of the following things:

- Push RETURN if you want a return screen showing your WPM. The screen displays the same drill and your typed drill, both in the same color. Push RETURN again to get the next drill.
- Push SELECT to get the next drill.

The next screen shows the next three letters from the five-letter ASDF set:

Position your fingers in the home position and type the drill with your right hand. Push RETURN.

Continue typing the alphabetic drills in the same manner. After drills for all 26 letters have been displayed, the screen displays five letters picked at random for both hands, and the LET'S PRACTICE message. No five-letter group ever contains an individual letter more than once.

Practice the number and punctuation drills the same way.

**B. INTERMEDIATE TYPING**

Insert Side 2 of Cassette A into the ATARI Program Recorder (see steps B-10 of the Installation and Loading Instructions at the beginning of this manual), then REWIND the tape to the beginning of that side and load the program as instructed in steps 12-16.
Type the drill and press RETURN. The screen displays EVALUATING at the bottom while the program calculates your error word count, your letter error counts, your WPM rate, and your most frequently mistyped letter.

After doing the calculations, the program automatically returns a screen showing the number of errors you made, your WPM, and your worst letter, followed by the message RETURN TO CONTINUE. The words you typed incorrectly are displayed in inverse video.

Push the RETURN key. The next screen displays the message LET'S WORK ON: and your worst letter, followed by a practice sentence with your worst letter in several of the words.

Type the practice sentence and push RETURN. Continue in this manner until you've completed all the drills the program presents to you (or until you're tired).

Each time you reduce your letter error count to zero, the screen displays the GETTING MATERIAL message, and the program automatically returns another screen with the message LET'S WORK ON: and another letter for you to work on. This letter is selected randomly, since you have no accumulated letter error counts.

C. ADVANCED TYPING

If you wish to go directly from INTERMEDIATE TYPING to ADVANCED TYPING, press START when the screen displays

SELECT = NEXT DRILL
START = MENU
OPTION = TEMPO

If you choose, you can insert Side 2 of Cassette A into the ATARI Program Recorder (steps 8-10 of the Installation and Loading Instructions at the beginning of this manual), then REWIND the tape to the beginning of that side and load the program as instructed in steps 12-16.

Do NOT attempt to rerun the program by pressing SYSTEM-RESET.

When the computer is finished loading the program, it displays a screen showing INTERMEDIATE LEVEL and ADVANCED LEVEL and flashes a message at the bottom of the screen asking you to CHOOSE ONE. The first letter of INTERMEDIATE and the first letter of ADVANCED are in a different color from the rest of the letters in those words.

Another screen showing a practice paragraph is then displayed. Type the drill and push RETURN. The program evaluates your typing, then returns a screen that highlights your errors and displays your error count, your WPM speed, and your worst letter. Push RETURN and keep retyping the paragraph until you get it right—the program is patient and returns the same paragraph to you each time you type it incorrectly.

When you type the drill correctly and push RETURN, the program displays ERRORS: 0, your WPM typing speed, and WORST: NONE. Push RETURN, and the program will let you try your hand (fingers) at a new drill. Continue in this manner through the remaining 149 drills. Good luck!

When you finally get through all the ADVANCED TYPING drills on Side 1 of Cassette B, the program displays the message END OF TEXT, and you hear a beep. The next screen displays the messages INSERT REWOUND PRACTICE TAPE AND PRESS PLAY & HIT RETURN.

Insert Side 2 of Cassette B, (Practice Text for ADVANCED TYPING) making sure it is rewound, press PLAY, and push RETURN. The program presents progressively more difficult drills until all the exercises on Side 2 of Cassette B have been shown. The screen then displays the END OF TEXT message and instructs you to insert the rewound practice tape again. You can insert either Side 1 or Side 2 of Cassette B to continue.

If you rewind the practice tape and follow the instructions given at the beginning of the ADVANCED TYPING practice session, the program returns you to the beginning of the ADVANCED TYPING program.

CAUTION: DO NOT REWIND THE PRACTICE TAPE UNTIL THE END OF THE TEXT MESSAGE IS DISPLAYED OR YOU HAVE ADVANCED THE TAPE TO THE END. THIS PREVENTS THE TAPE FROM BEING DAMAGED.
3. **PART THREE**

**QUICK GUIDE TO KEYBOARD INSTRUCTIONS**

<table>
<thead>
<tr>
<th>KEY</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Buzzes when you type the next character.</td>
</tr>
<tr>
<td><strong>BREAK</strong></td>
<td>Not used.</td>
</tr>
<tr>
<td><strong>CAPS LOCK</strong></td>
<td>Buzzes.</td>
</tr>
<tr>
<td><strong>CLEAR</strong></td>
<td>Buzzes. (Not used.)</td>
</tr>
<tr>
<td><strong>CLR DEL TAB</strong></td>
<td>Buzzes. (Not used.)</td>
</tr>
<tr>
<td><strong>CTRL</strong></td>
<td>None. (Not used.)</td>
</tr>
<tr>
<td><strong>DELETE BACK SP</strong></td>
<td>Buzzes. (Not used.)</td>
</tr>
<tr>
<td><strong>ESC</strong></td>
<td>None. (Not used.)</td>
</tr>
<tr>
<td><strong>UNSEL</strong></td>
<td>Buzzes. (Not used.)</td>
</tr>
<tr>
<td><strong>OPTION</strong></td>
<td>Sets the TEMPO option in INTERMEDIATE and ADVANCED TYPING. Allows you to select a WPM speed and type in time to an electronic metronome. Terminates input for the current drill and displays EVALUATING at the bottom of the screen. <strong>BEGINNING</strong>: Causes a bell to ring as a signal to check the keyboard position of your right hand. <strong>SELECT</strong>: Causes a new pattern to be displayed. INTERMEDIATE and ADVANCED: Causes a new drill to be displayed. <strong>SHIFT</strong>: Allows you to type punctuation marks shown on the upper halves of some keys while you hold the <strong>SHIFT</strong> key down. <strong>INTERMEDIATE</strong>: Allows you to type uppercase letters when you hold the key down. <strong>ADVANCED</strong>: Allows you to type uppercase letters and the punctuation marks shown on the upper halves of some keys while you hold the <strong>SHIFT</strong> key down. <strong>BEGINNING</strong>: Nothing happens. Not used. <strong>INTERMEDIATE</strong> and <strong>ADVANCED</strong>: Zeros out all error counts, returns you to the menu at the beginning of the INTERMEDIATE and ADVANCED program. Terminates the program. Rewind your cassette to the beginning and start again.</td>
</tr>
</tbody>
</table>

**BIBLIOGRAPHY**


