



Richard Watts/Macrotronics

## MORSE CODE TUTOR

Tutorial and drills for recognizing Morse code

Cassette: 16K (APX-10092)

Diskette: 24K (APX-20092)

User-Written Software for ATARI Home Computers

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#### INTRODUCTION

#### OVERVIEW

MORSE CODE TUTOR is a comprehensive and enjoyable program for learning to recognize Morse code. You learn at your own pace and you can accelerate the transmission speed of the code as you gain proficiency. The tutorial section contains eleven 4-character lessons. In each lesson you can specify the character to be sent and then listen to the signal, or you can have the program send any of the lesson's characters at random. You can also choose to have random characters sent from the current and all earlier lessons. As you become familiar with each code, you can increase the transmission speed, from 5 words per minute, to as fast as 60 words per minute.

Once you become familiar with all the characters, MORSE CODE TUTOR offers five different practice options. One lets you specify the Morse character to be sent; the character displays in blue on your TV screen as it's sent and then changes to yellow, so you always know which character you're hearing. In two other options, the program sends random characters in groups of five or it sends random words. For all these options, you can vary the speed according to your needs. Another option lets you increase the space between character or word transmission. And if you're preparing for the FCC code test for ham radio operation, you can listen to randomly generated ham radio call signs using another option; each calls displays as it's transmitted.

#### REQUIRED ACCESSORIES

Cassette version
16K RAM
ATARI 410 Program Recorder
Diskette version
24K RAM
ATARI 810 Disk Drive
ATARI BASIC Language Cartridge

#### CONTACTING THE AUTHOR

Users wishing to contact the author about MORSE CODE TUTOR may write to him at:

2333 Village Circle Atwater, CA 95301

#### GETTING STARTED

## LOADING MORSE CODE TUTOR INTO COMPUTER MEMORY

1. Insert the ATARI BASIC Language Cartridge in the (Left Cartridge) slot of your computer.

## 2. If you have the cassette version of MORSE CODE TUTOR:

- a. Turn on your TV set.
- b. Connect your program recorder to the computer and to a wall outlet.
- c. Slide the MORSE CODE TUTOR cassette into the program recorder's cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY.
- d. Turn on your computer while holding down the START key, then press the RETURN key. The tape will load into computer memory and start.

### If you have the diskette version of MORSE CODE TUTOR:

- a. Turn on your disk drive.
- b. When the BUSY light goes out, open the disk drive door and insert the MORSE CODE TUTOR diskette with the label in the lower right-hand corner nearest to you. Close the door.
- c. Turn on your computer and TV set. MORSE CODE TUTOR will load into computer memory and start automatically.

#### THE FIRST DISPLAY SCREEN AND PROGRAM MENU

The program title, author, and copyright information display on your TV screen, followed a few seconds later by the program's menu:

> MORSE CODE TUTORIAL by Richard Watts | COPYRIGHT 1980 Macrotronics, Inc. |

- | 1 | MORSE CODE TUTORIAL
- | 2 | SEND CODE FROM KEYBOARD
- | 3 | SEND RANDOM WORDS
- | 4 | SEND RANDOM CHARACTERS | 5 | SEND RANDOM CALL SIGNS
- | 6 | CHANGE INTER-CHARACTER &

| | INTER-WORD SPACING

ENTER SELECTION? \_

Figure 1 First Display Screen & Menu

#### USING MORSE CODE TUTOR

#### INTRODUCTION

As shown in Figure 1, MORSE CODE TUTOR has five different options for sending Morse characters. Select an option by typing its number and pressing the RETURN key. If you're unfamiliar with Morse code, start with option 1, MORSE CODE TUTORIAL, which teaches the characters. Once you've learned all the characters, select one of the other options to practice identifying characters sent randomly. As you practice, copy the code without watching the screen, and then compare your copy with that on the screen.

The program can send Morse code from 5 words per minute (WPM) to 60 WPM. Use the "<" and ">" keys on the upper right-hand side of the top row of keys to change the speed. Start at a slow speed—around 7 or 8 WPM—and build your speed gradually.

To change from one option to another, press the "ESC" key (at the upper left-hand corner of the top row of keys) to return to the menu. Descriptions of each option follow.

#### OPTION 1 -- MORSE CODE TUTORIAL

Option 1 offers you eleven lessons. Each lesson teaches four characters. Start with lesson 1 and work through the lessons in numeric order. To select a lesson, type its number and press the RETURN key. The lessons are as follows:

-							
1	LESSON	1	F	V	E:	1	1
1	LESSON	2	R	· L	I	2	1
1	LESSON	3	G	К	T	3	ļ
1	LESSON	4	0	Z	D	4	Ì
1	LESSON	5	Υ	A	M	5	1
1	LESSON	6	С	Q	S	6	1
I	LESSON	7	Н	X	J	7	1
1	LESSON	8	W	N	•	8	1
I	LESSON	9	F'	3	,	9	1
1	LESSON	10	U	E	/	0	1
1	LESSON	11	;	;	-	•	1

ENTER LESSON NUMBER? \_

Figure 2 Option 1--Lessons

#### Commands

Once you've typed your lesson number, you use seven commands to indicate the actions you want to take. The lesson/command display looks approximately like this (using Lesson 1):

LESS	ON 1	F		E	 1	
KEY	C	OMMAND		SFEED	=13	
↑	SEND FR SEND FR LE SELE DECR INCR	FROM K RANDOM OM THIS RANDOM OM THIS SSONS CT ANOT EASE SP EASE SP RN TO M	CHAR LESS CHAR AND HER L EED EED	ACTER ON ACTER EARLI	S	

ENTER COMMAND? \_

Figure 3 Lesson and Command Display

Select a new command at any time by pressing the proper command key. Below are descriptions of each command. When a command requires a combination of keystrokes, the combination appears in parentheses next to the command.

#### ↑ (CTRL↑)

Use the up arrow to signal that you want to press the key of any valid Morse character and have the program send it in Morse code. You can press more keys without having to use the up arrow each time.

#### -> (CTRL ->)

Use the right arrow to have the program send a random character from the current lesson. You then press the key of the character sent. If you press an incorrect key, the program sends first the character you pressed and then the correct character, so you can learn the difference between the two.

#### ↓ (CTRL↓)

Use the down arrow to have the program send random characters from your Lesson 1 to your selected lesson. This command tests you on all the characters you've learned so far.

#### <- (CTRL <- )

Use the left arrow to end the current lesson and return to the option 1 lesson list to select another lesson.

<

Use the left angle bracket to decrease the speed with which the program sends Morse code. SPEED displays in words per minute on the lesson and command display screen, just above the command list.

>

Use the right angle bracket to increase the speed with which the program sends Morse code,

ESC

Use the ESC key to return to the program's menu, to select another option.

When you think you've mastered the Morse characters, increase your speed and proficiency with options 2 through 5.

#### OPTION 2 -- SEND CODE FROM KEYBOARD

Use option 2 to type valid Morse characters that the program then sends and displays on the TV screen. Each character displays in blue as it's sent; otherwise, it displays in yellow. Use the "<" key to increase the transmission speed and the ">" key to decrease it. Speed can vary from 5 to 60 WPM.

When the screen is full and the program has sent all characters, the program asks you to press the SPACE BAR to resend the characters on the screen or to press any letter to begin again with a cleared screen.

#### OPTION 3 -- SEND RANDOM WORDS

Use option 3 to have the program send random words and display them on the TV screen. Each letter in a word displays in blue as it's sent; otherwise, it displays in yellow. Use the "<" key to increase the transmission speed and the ">" key to decrease it. Speed can vary from 5 to 60 WPM.

When the screen is full and the program has sent all words, the program asks you to press the SPACE BAR to resend the words on the screen or to press any letter to begin again with a cleared screen.

#### OPTION 4 -- SEND RANDOM CHARACTERS

Use option 4 to have the program send random characters in groups of five and display them on the screen. The character in a group displays in blue as it's sent; otherwise, it

displays in yellow. Use the "<" key to increase the transmission speed and the ">" key to decrease it. Speed can vary from 5 to 60 WPM.

When the screen is full and the program has sent all groups of characters, the program asks you to press the SPACE BAR to resend the groups on the screen or to press any letter to begin again with a cleared screen.

## OPTION 5 -- SEND RANDOM CALL SIGNS

Use option 5 to have the program send randomly generated ham radio call signs (e.g., KF8WMO) and display them on the TV screen. Each call sign displays in blue as it's sent; otherwise, it displays in yellow. Use the "<" key to increase the transmission speed and the ">" key to decrease it. Speed can vary from 5 to 60 WPM.

When the screen is full and the program has sent all call signs, the program asks you to press the SPACE BAR to resend the call signs on the screen or to press any letter to begin again with a cleared screen.

This option is useful in preparation for the FCC code test. If you're preparing to take an amateur radio operator's code test, you should be familiar with the style of the test. At the time of this writing, the FCC gives its code tests at three speeds: 5 WPM for novice and technician class licenses; 13 WPM for general and advanced class licenses; and 20 WPM for the extra class license. During the test, you're sent a Morse code that's one side of a typical ham operator's conversation. The message might read something like this:

VVV VVV W6XYZ DE KZ6ZZZ Your RST is 479. Thanks for the call Hal. Name here is John and the location is Turlock, California. The rig is a Kenwood TS-120 tranceiver running 100 watts input to a Yagi antenna on a 45 foot tower. Age here is 21. How copy? W6XYZ DE KZ6ZZZ K

The message will be five minutes long. After it's sent, you're expected to answer correctly eight out of ten questions asked about the message.

For more information on the amateur radio test, contact your nearest FCC office, or, better still, purchase the <u>ARRL License Manual</u> from ARRL, 225 Main Street, Newington, CT 06111.

#### OPTION 6 -- CHANGE INTER-CHARACTER & INTER-WORD SPACING

Use option 6 to have the program add more space between the characters and words sent. Enter a "1" for theoretical spacing. To double the amount of space, enter a "2", and so on, up to a spacing of 4. We suggest you learn the code with the spacing set at "1". If you use more spacing, you might have trouble increasing your speed later.

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We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many of our authors are eager to improve their programs if they know what you want. And, of course, we want to know about any bugs that slipped by us, so that the author can fix them. We also want to know whether our

instructions are meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and A	PX number of program.
2. If you have p	problems using the program, please describe them here.
······································	
3. What do you	a especially like about this program?
4. What do you	u think the program's weaknesses are?
5. How can the	e catalog description be more accurate or comprehensive?
6. On a scale o	of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this prog
-	Easy to use
	User-oriented (e.g., menus, prompts, clear language)
	Enjoyable Self-instructive
	Useful (non-game programs)
	Imaginative graphics and sound

8. What did you especially like about the user instructions?	
What revisions or additions would improve these instructions?	
10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "exinstructions and why?	xcellent", how would you rate the user
11. Other comments about the program or user instructions:	
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