

# Ultimate ROM II

# Club 100: A Model 100 User Group

Supporting Tandy/Radio Shack Model 100, 102, 200, WP-2 and NEC8201 Laptop Computer Owners Since 1983. P.O. Box 23438, Pleasant Hill, CA 94523-0438 725 510/932-8956 voice, 937-5039 fax, 939-1246 bbs

This manual is a duplicate of the original manual supplied with this program by Traveling Software; the originators. Only slight changes were made to fit Club 100's economics and distribution needs.

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# The Ultimate ROM II

THE Ultimate ROM II combines these programs on one chip:

- T-Word The word processor and text formatter that improves on the text-editing capabilities of your computer and produces professional-looking documents with ease and considerable flexibility
- IDEA! The outline processor with capabilities that let you organize anything from simple lists to complex documents
- T-base The database management system that lets you determine the kinds of files you want to set up, the kinds of reports you want to produce, the data to be shared between files, the calculations to be performed
- ROM-View 80 The display-enhancement that allows you to view 50% more characters per line—up to 80 characters on a line with scrolling (not included on the Tandy 200 version)
- TS-DOS On the Tandy 100/102 and the NEC (PC-8201 or PC-8300), allows you to print and preview documents directly from the Tandy Portable Disk Drive; on the Tandy 200, also allows such operations as saving the entire contents of RAM to disk and accessing the disk with BASIC

Once you have installed the Ultimate ROM II, you will have added programs that would have occupied 32K of memory if stored in the RAM of your laptop computer.

# Installing and Initializing the Ultimate ROM II

# Installing the Chip

Follow these steps to install the Ultimate ROM II chip in your computer.

■ Note: Handle your ROM II chip with care. Do not touch the contact pins, and leave the label in place; by removing it, you may destroy the programs.

- 1. Exit any application on your computer and return to the main system menu.
- 2. Make sure that the main system menu shows at least two empty slots for new files and 500 bytes free. Delete files if necessary.
- 3. Turn the computer of f.
- 4. Turn the computer bottom side up, so that the type on the labels on the bottom of the computer is right side up.
- 5. Locate the ROM module expansion compartment and gently remove the cover.

Tandy 100:	The ROM module expansion compart-
	ment is located at the bottom center of
	the Tandy 100.
Tandy 102:	The ROM module expansion compart-
	ment is located near the lower right
	corner of the Tandy 102.
Tandy 200:	The ROM module expansion compari-
•	ment is the one at the lower right corner
	of the Tandy 200.
NEC:	The ROM expansion compartment is
	located at the bottom of the NEC.
	(Remove the three screws.)

- 6. Locate the receptacle into which you will place the Ultimate ROM II chip.
- Tandy 100:The receptacle is the lower of the two in<br/>the compartment.
- **Tandy 102:** The receptacle is on the far right side of the compartment.
- **Tandy 200:** The receptacle is the one on the left side of the compartment.
- **NEC:** The receptacle, labeled *ROM 1*, is the second one from the left side of the compartment.
- 7. Tandy 100/102/200: Hold the Ultimate ROM II chip label side up, so that the type on the label is right side up. Evenly and steadily press the chip into the receptacle. The top of the chip should be flush with the top of the receptacle.

• Note: The Tandy 100, 102, and 200 versions of the Ultimate ROM II are not interchangeable. Installing a Tandy 100 or 102 version in a Tandy 200, or vice versa, will cold start the computer and destroy all data in RAM.

NEC: Hold the Ultimate ROM II chip so that the notch on the chip is toward you. Align the pins with the receptacle and gently but firmly press the chip into the receptacle. Make sure all the pins are inserted.

8. Replace the cover, turn the machine over, and turn the computer on. If the main system menu reappears on your computer, the Ultimate ROM II chip is properly seated, and you are ready to initialize it.

■ If the screen is blank, immediately turn the computer of f, return to the ROM module expansion compartment, and repeat the entire installation process.

### Initializing the Programs

Once your Ultimate ROM II chip is properly installed, you must initialize it before you can begin using its programs.

- 1. Turn your computer on and remain in the main system menu.
- 2. With the cursor over **BASIC**, press < ENTER >.
- 3. Type the command appropriate to your computer; then press < ENTER >:

On the Tandy	100 or 102:	CALL 63013,1	
On the Tandy .	200:	CALL 61167,2	
On the NEC:		POKE 63911, 1:	EXEC 62394

- Note: If your computer has more than one memory bank or if you have a memory expansion device, you must perform this step for each of the banks in which you want to make these programs available.
- 4. As soon as you perform the previous step, you are in the Ultimate ROM II menu, where you can select the program you want.

# Using Programs on the Ultimate ROM II

Once the Ultimate ROM II chip is correctly installed and initialized in your computer, you see the Ultimate ROM II menu of programs:

			I (v.2.0 oftware,	
T-Word	IDEA!	BASIC	TEXT	TELCOM
T-base	TB-RPT	TS-DOS	View80	SARDIN
		0ff	Off	Off
		•		Menu

The Ultimate ROM II Menu

# Selecting Programs

To select a program, press < ENTER > after placing the cursor over the appropriate file name:

	1 · · ·
T-Word	for T-Word
IDEA!	for IDEA!
T-base	for the data-entry and retrieval component of T-base
TB-RPT	for the report-printing component of T-base
TS-DOS	for TS-DOS
View80	for ROM-View 80
BASIC	for the BASIC program built into your computer
ΤΕΧΤ	for the TEXT program built into your computer
TELCOM	for the TELCOM program built into your computer

*Note:* The **TS-DOS** file name appears in the Ultimate ROM II menu in all versions—whether for the Tandy 100, 102, or 200, or the NEC. This option is not usable, however, without the TS-DOS disk, included with the Tandy 200 version of the Ultimate ROM II and available separately for the Tandy 100 and 102 and the NEC.

# Instructions on Using the Programs

For instructions on T-Word, IDEA!, and T-base, consult the manuals for those programs.

For instructions on starting TS-DOS and ROM-View 80, see page 8 of this guide.

For instructions on using BASIC, TEXT, and TELCOM while in the Ultimate ROM II, see page 9 of this guide.

# Entering and Leaving the Ultimate ROM II

It is through the menu shown on the previous page that you enter and have the Ultimate ROM II. Notice the Menu prompt in the lower right corner.

■ To leave the Ultimate ROM II menu and return to the main system menu, press < f8 > on the Tandy 100/102/200; < SIHFT > < f5 >, on the NEC.

Once back in the main system menu, you will see this prompt: UR-2.

■ To enter the Ultimate ROM II from the main system menu, place the cursor over UR-2 and press < ENTER >. You are then in the menu of the Ultimate ROM II, where you can select any of its programs.

# Starting TS-DOS and ROM-View 80

Of all the programs on the Ultimate ROM II chip, only TS-DOS and ROM-View 80 function outside of the chip; they function in the high memory of your computer.

To operate these programs, therefore, you must clear from high memory any other machine-language program you may have there. Both TS-DOS and ROM-View 80 give you the chance to do this by pressing a single key.

■ Start in the Ultimate ROM II menu, place the cursor over **TS-DOS** or **View80** and press < ENTER >. If there is another machine-language program in high memory, you will see this question on your screen:

#### Change HIMEM?

Press (Y) to remove the other program from high memory and put either TS-DOS or ROM-View 80 in its place. If you press any other key, you will keep the other program in high memory, but you won't be able to use either TS-DOS or ROM-View 80.

■ Note: You cannot operate TS-DOS and ROM-View 80 at the same time. You must select one or the other. Selecting one while the other is activated will turn the other off.

If you have no other machine-language program in high memory, the **Change HIMEM?** question will not arise.

For further instructions on use of TS-DOS, see the TS-DOS manual.

For further instructions on use of ROM-View 80, see either the ROM-View 80 manual or the T-Word manual.

# Using TEXT, BASIC, and TELCOM with the Ultimate ROM II

For your convenience, the Ultimate ROM II has been designed so that you can select TEXT, BASIC, or TELCOM from the Ultimate ROM II menu, without having to exit to the main system menu. But remember that if you select TEXT, BASIC, or TELCOM from your main system menu, ROM-View 80 is not then available.

# TEXT

Once you enter TEXT from the Ultimate ROM II menu, you see a menu of all your document files—without the .DO extensions that appear in the main system menu.

While in this menu, you can use function keys to create new files, edit or kill existing files, and return to the Ultimate ROM II menu. There are prompts on the screen to indicate the keys to press. A table of these prompts and function keys appears on the next page.

To leave a file selected in this menu, press  $\langle \mathbf{f8} \rangle$  on the Tandy 100/102/200;  $\langle \mathbf{SHIFT} \rangle \langle \mathbf{f5} \rangle$ , on the NEC. You are returned to this menu.

# BASIC

Once you enter BASIC from the Ultimate ROM II menu, you see a menu of all your BASIC files—without the .BA extension with which they appear in the main system menu.

While in this menu, place the cursor over the file name of a program you want to run, and press < ENTER >. You can also use function keys to begin entering BASIC commands, to kill a .BA file, and to return to the Ultimate ROM II menu. A table of the function keys and the prompts for these keys appears on the next page.

# TELCOM

Once you enter TELCOM from the Ultimate ROM II menu, everything including the function key options is the same as though you had entered TELCOM from the usual route—the main system menu.

When you exit TELCOM, you are returned to the main system menu.

#### Function Key Options in TEXT

		ction Key ndy NEC	Function
New	f1	fl	Creates a new file. Type a <i>new</i> file name and press < ENTER > to begin typing the file.
Kill	ſ2	ſ2	Prepares to kill the file marked by the cursor in the file-selection screen. Then press $\langle \mathbf{Y} \rangle$ to kill the file, any other key to leave it intact.
Edit	ſ4	f4	Takes you directly into the file marked by the cursor.
UR-2	81		Exits TEXT and returns you to the Ultimate ROM II menu.

Function Key Options in BASIC

Prompt	<u>Functic</u> Tandy		Function
New	fl	fl	Takes you into the BASIC program of your computer, where you can enter BASIC commands
Kill	f2	f2	Prepares to kill the file marked by the cursor in the file-selection screen. Then press $\langle \mathbf{Y} \rangle$ to kill the file, any other key to leave it intact.
UR-2	f8 、		Exits BASIC and returns you to the Ultimate ROM II menu.

# Memory Necessary to Operate the Programs

Though the Ultimate ROM II programs do not reside in RAM, they do require a small amount of RAM to operate.

■ At a maximum, allow 1K to operate T-Word; 3-4K to operate IDEA! or ROM-View 80; and 4-5K to operate TS-DOS or either component of T-base.

The T-base manual provides formulas for more exact determinations of the memory required to operate the two components. These formulas take into account the kinds of T-base files that have been created. Refer to the formulas on pages 2A-30 and 3-17 of the T-base manual, and add 1,000 bytes when you make your calculations.

# Removing the Ultimate ROM II from Your Computer

Once you have installed and initialized the Ultimate RCM II, you are not committed to having its programs in your computer forever. Because the UR-2 file, which contains the programs, takes up only about 80 bytes of your computer's memory, it is unlikely you will want to remove it except to replace the Ultimate ROM II chip with another.

Before removing the Ultimate ROM II chip, you must first remove the programs by killing the UR-2 file.

## Removing the Programs

To delete the UR-2 file—and the Ultimate ROM II programs with it—begin in the main system menu of your computer.

- 1. In the main system menu place the cursor over **BASIC**, and press < ENTER >.
- 2. Type

KILL "UR-2"

and press **< ENTER >**.

3. Then to return to the main system menu, press < f8 > on the Tandy 100/102/200, < SHIFT > < f5 > on the NEC.

• Programs removed this way can be restored only by initializing the chip again. See page 5 of this guide for help.

■ To remove the CONFIG. DO file, follow the steps above, substituting CONFIG. DO for UR-2.

# Removing the Chip

Once you have killed the UR-2 file, turn the computer off, remove the cover from the ROM expansion compartment, and *gently* pry the chip free.

# Replacing the Chip

Each time you replace the Ultimate ROM II chip in your computer, you must follow the installation and initializing steps outlined beginning on page 3 of this guide.

■ Failure to re-initialize and re-install the chip each time you replace it in your computer may cause your computer to cold start and lose all the contents of its memory.

# Modifying the Programs

As explained in the program manuals, you can make certain modifications to IDEA!. T-base, and T-Word that will customize the programs to your particular needs. With IDEA! and T-base, for example, you can change the program to utilize all of the lines of an external monitor. With T-Word, you can customize certain print commands to your printer.

# The CONFIG. DO File

The means by which you modify the programs is the CONFIG. DO file.

• On some versions of the Ultimate ROM II. the CONFIG. DO file is included on the chip. On others it is included on the  $3\frac{1}{2}$ -inch disk.

If included on the chip, the **CONFIG.DO** file will appear on your main system screen once you have installed and initialized the chip.

If included on the disk, this file may be loaded into your computer by TS-DOS or entered in the TEXT program of your computer. For instructions on loading a file from disk, see Section 4 of the TS-RANDOM/TS-DOS manual. For instructions on creating the file in TEXT, see page 19 of this guide.

You need not have this file in your computer to operate any of the programs. With T-Word, however, certain of the print commands will not work unless you have CONFIG. DO in your computer in a form suited to your printer.

■ The modifications for T-Word are fully explained in Section 8 of the T-Word manual. Those for IDEA! and T-base are explained below.

Once you modify the CONFIG.DO file, you must keep the

altered file in your computer so that the modifications will take effect as you use the programs. Any changes you make will remain in effect as long as the CONFIG. DO file remains in your computer. Should you delete the file and later restore it to your computer from disk, you will have to make the modifications again.

• To modify any of the programs, place the cursor in the main system menu over CONFIG. DO and press  $\langle ENTER \rangle$ . When you are through, save the modification and return to the main system menu: Press  $\langle \mathbf{f8} \rangle$  on the Tandy 100/102/200,  $\langle SHIFT \rangle \langle \mathbf{f5} \rangle$  on the NEC.

For more information about the changes that can be made, see page B-1 of the IDEA ! manual and page A-1 of the T-base manual.

# Modifying IDEA! and T-base at Once

There are three modifications you can make to the CONFIG. DO file that affect the operation of both IDEA! and T-base. With these changes you can increase string space, add or delete line feeds, and provide for use of an external monitor. (To add or delete line feeds with T-Word, see Section 8 of the T-Word manual.)

■ To increase string space for IDEA! or T-base, alter the first line of the CONFIG. DO file:

From: CLEAR, 1500 To: CLEAR, 1750

Increase the number by increments of 250 as suggested in the manuals.

■ *Tandy 100/102/200:* To add a line feed at the end of each line (in case your printer has printed everything on one line), alter this line to change both IDEA! and T-base:

From: CR\$,N To: CR\$,Y [in uppercase]

**NEC:** To delete a line feed at the end of each line (in case the printer has placed too much space between lines), alter this line:

From: CR\$,Y To: CR\$,N [in uppercase]

■ To use all 25 lines of a video monitor, alter this line: *Tandy 100/102:* From: **SS,8** To: **SS,25**  *Tandy 200:* From: **SS,16** To: **SS,25** *NEC:* From: **SS,8** To: **SS,25** 

# **Modifying IDEA!**

To send IDEA! files to a destination other than a parallel printer, alter this line:

From: D\$,LPT: To: D\$,COM:58N2E (for a serial printer) Or: D\$,LCD: (for your computer display)

• To change the left margin, alter this line:

From: ML,8 To: ML,N where N represents the new column setting for the left margin.

■ To change the right margin, alter this line:

From: MR,73 To: MR,N where N represents the new column setting for the right margin.

 To change the page length setting, alter this line: From: PL,54 To: PL,N
 where N represents the number of lines printed on each page.

• To cause the printer to pause between pages, alter this line:

From: **PN**, **12** To: **PM**, **0** To modify top and bottom margins, type a number other than zero.

#### The CONFIG. DO File

CLEAR, 1500< CR\$,N< SS,8< -\* IDEA! \*-\* D\$,LPTx ML,8< MR,73< PL,54< PM, 12< -\* T-WORD \*-( ^Pc 10,75,6,6,66,N,1,0,N,N,1,N,1,99,1([Tandy only] 10,75,6,6,66,N,1,0,Y,N,1,N,1,99,1([NEC only] ^F∢ 10/27,80< 12/27,774 15/15< ^B0/27,69/27,70< ^D0/27,71/27,72< ^E0/27,77/27,80< ^G0/27 112,1/27,112,0« ^KØ/15/18< ^S0/27,83,0/27,84< ^T0/27,83,1/27,84« ^U0/27,45,1/27,45,0< ~W0/14/20< ^Y0/27,52/27,534

# Creating the CONFIG.DO File

You have no need for the CONFIG. DO file unless you want to modify T-Word, IDEA!, or T-base or, with T-Word, want to use the printer-specific commands for boldface, underlining, and other text-formatting effects.

On some versions of the Ultimate ROM II, the CONFIG. DO file is loaded into your computer along with the programs. On other versions, it is contained on the 3<sup>1</sup>/<sub>2</sub>-inch disk. If you prefer to enter the file instead of loading it from disk, follow these steps:

1. Install and initialize the Ultimate ROM II.

2. In the main system menu of your computer, place the cursor over TEXT and press < ENTER >.

3. In response to the question File to edit?, type CONFIG. DO and press < ENTER >.

4. Type the file printed on the opposite page. When through, press < f8 > on the Tandy 100/102/200; < SHIFT > < f5 >, on the NEC.

Note: There are several commands in the CONFIG. D0 file that appear with the  $^$  symbol:  $^P$ ,  $^F$ ,  $^B$ , and so on. To enter these commands, hold down < CTRL > and press < P > and then the command character: < P >, < F >, < B >, and so on.

# **T-Word Reference Guide**

#### Print Menu Options

Left margin	(L]eft
Right margin	(R)ight
Top margin	tTlop
Bottom margin	[B]ottom
Page length	[P]g Len
Justification yes/no	[J]ustify
Line spacing	[\$]pacing
Font (pitch)	[F]ont
Line feeds yes/no	[A]dd LF
Pause printer yes/no	[W]ait Pgs
Number of first page in file	[N]um Start
Automatic page	
numbering yes/no	[0]uick Num
First page to be printed	[1]st Print
Last page to be printed	[E]nd Print
Copies to be printed	[C]opies

#### **Print** Commands—Universal

Center text	<u>^</u> C
Enter headers	^H^H
Enter footers	^F^F
Change left margin	~L
Change right margin	^R
Hanging indentation	^x^x
Alter page numbers	^NØ-^N250
Page break	^P
Conditional paging	^V1-^V250
Alter line spacing	^A1-^A250
Justification on/off	^0^O

#### Print Commands—Printer-Specific

Boldface	^В^В
Double strike	^D^D
Elite type	ΓΕΓ <b>Ε</b>
Proportional spacing	^G^G
Condensed print	^K ^K
Subscripts	^S^S
Superscripts	^T^T
Underlining	^J^U
Wide type	°W °W
Italics	^Y ^Y

#### Merge Commands

Print current date	101D
Print current time	101T
Merge block	<u>^0</u>
Merge from data file	^01-^099
Merge entire file from RAM	^O[file]
Merge entire file from disk	^Q[0:file]
Chain print files from RAM	^O[file1]^O[file2]
Chain print files from disk	^Q[0:file1]^Q[0:file2]

#### Word Processing Enhancements

Insert/overwrite	< CTRL > < 0 >
Search and replace	< CTRL > < L >
Byte and word count	< CTRL > < J >

# **IDEA!** Reference Guide

Keys to Press	Functions Performed
<pre> «ENTER » </pre>	<b>Expand/Compress:</b> As Expand, reveals subideas under idea marked by cursor. As Compress, hides those subideas.
	Quick Select: In Outline mode, selects/deselects the idea marked by the cursor. For use with Copy and Move.
 ( <shift> (/&gt;)</shift>	Quick Copy: In Outline mode, copies Selected idea, placing it just ahead of idea marked by the cursor.
< >	Quick Move: In Outline mode, moves Selected idea, placing it just ahead of idea marked by the cursor.
<tab> or &lt; +&gt;</tab>	In Outline mode, expands idea marked by the cursor and moves to the first subidea.
< BKSP > of < + >	In Outline mode, moves from subidea to "home" idea and compresses the idea.
< SPACE >	<b>Preview:</b> Expands outline, revealing all levels. Used with cursor-control keys, lets you move quickly through outline and locate an idea. Press < SPACE > or < ESC > to leave Preview and return to outline at idea on top line of screen.
« SHIFT » « ♥ »	<b>Fage Down:</b> In Outline or Preview mode, moves down one page at a time.
< SHIFT > < 🕈 >	<b>Page Up:</b> In Outline or Preview mode, moves up one page at a time.
< CTRL > < 🗢 >	Home: In Outline mode, returns to the "home" idea of a subidea if outline is expanded, to top of outline if outline is compressed. In Preview mode, returns to top of outline.
< CTRL > < 🖶 >	End: In Outline mode, moves to end of a list of subideas if outline is expanded, to end of outline if outline is compressed. In Preview mode, moves to end of outline.
< ESC >	<b>Exit:</b> Exits Preview and any function key option and returns you to the Outline mode (press twice while in Notes). In Outline, use to exit IDEA.

# T-base Reference Guide

#### Screen Definition Descriptors—Primary

Text	Т
Integer	I
Collar and two-place decimal	S
Floating decimal	F
Date	D
User-defined	U

#### Screen Definition Descriptors—Secondary

Borrowed	В
Borrowed and stored	BS
Calculated	С
Calculated and stored	CS
Mandatory	М

#### Report Definition Commands

Database name	DB,xxxx
Sort	SO,FIELD2,FIELD3,etc.
Sort and resort	SR,FIELD2,FIELD3,etc.
Page length	PL,nn
Page width	PW,nn
Redirected output	OUT,FILE(or REPORT
Heading	or SDF),destination:
Column position	HE,Report Heading
Column label	CO,nn,nn,nn,etc.
Source of detail	CL,LABEL,LABEL2,etc.
data item Subtotal Grand total Forced page break	DE, FIELD3, FIELD2, etc. ST, BREAKFIELD, FIELD2, FIELD3, etc. GT, FIELD1, FIELD2, etc. FP, BREAKFIELD

#### Numeric Expressions

Addition	+
Subtraction	_
Multiplication	*
Division	1
Integer division	١
Modulus arithmetic	MOD
Parentheses	()
Exponentiation	^

#### **Relational Expressions**

Less than	<
Greater than	>
Equal to	-
Not equal to	< > or > <
Less than or equal to	= < 10 > =
Greater than or equal to	= > or > =
Not equal to	= < 10 > =

#### Numeric Functions

Get ASCII codeASCCompute arctangentATMConvert to double-precisionCDBConvert to integerCINCompute cosineCOSConvert to single-precisionCSNCompute natural exponentialEXPTruncate to whole numberFIXSearch a string for à substringINS'Compute length of stringLEN	I SL T G
Convert to double-precisionCDBConvert to integerCINCompute cosineCOSConvert to single-precisionCSNCompute natural exponentialEXPTruncate to whole numberFIXSearch a string for à substringINS'Convert to integerINTConpute length of stringLEN	T G
Convert to integerCINCompute cosineCOSConvert to single-precisionCSNCompute natural exponentialEXPTruncate to whole numberF1XSearch a string for à substringINS'Convert to integerINTCompute length of stringLEN	T G
Convert to integerCINCompute cosineCOSConvert to single-precisionCSNCompute natural exponentialEXPTruncate to whole numberF1XSearch a string for à substringINS'Convert to integerINTCompute length of stringLEN	G
Compute cosineCOSConvert to single-precisionCSNCompute natural exponentialEXPTruncate to whole numberF1XSearch a string for à substringINS'Convert to integerINTCompute length of stringLEN	G
Compute natural exponential Truncate to whole numberEXP FIXSearch a string for à substring Convert to integerINS' INT LEN	-
Truncate to whole numberFIXSearch a string for à substringINS'Convert to integerINTCompute length of stringLEN	,
Search a string for a substring INS' Convert to integer INT Compute length of string LEN	
Convert to integerINTCompute length of stringLEN	
Convert to integerINTCompute length of stringLEN	ΓR
	[
Compute natural logarithm LOC	;
Return pseudo-random number RNI	)
Return algebraic sign SGN	ſ
Compute trigonometric sine SIN	
Compute square root SQR	
Compute tangent TAN	
Compute tangent TAN	

#### String Functions

Return ASCII character Return system's date "MM/DD/YY" Return system's day of the week Return left portion of a string Return middle portion of a string Return right portion of a string Returns a string of spaces Convert numer.c to string type Return a string of characters Return system's time "HHMM:SS" Used for concatenation of strings CHR\$ DATE\$ DAY\$ LEFT\$ MID\$ RIGHT\$ SPACE\$ STR\$ STRING\$ TIME\$ +