ROM-View 80

ROM-View 80™

An LCD Display Enhancement

For the Tandy 100
and the NEC PC-8201

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TRADEMARKS

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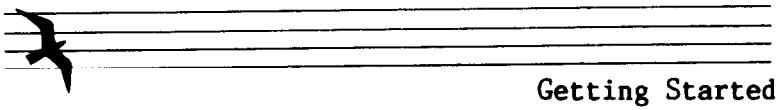
Section 1

Getting Started



INTRODUCING ROM-View 80

ROM-View 80 is a display enhancement program that expands the 40-column screen capacity of the Tandy Model 100 and the NEC PC-8201.

With ROM-View 80, your computer can now display 8 lines by 60 columns at once, and scroll up to 8 lines by 80-columns. Capital and lowercase letters in the 80-column enhanced mode are easily readable.

ROM-View 80 works with all the applications on the ULTIMATE ROM II as well as with your built-in TEXT, BASIC, and TELCOM programs. ROM-View 80 is easily switched on and off from the main ULTIMATE ROM menu. The following is a brief description of what ROM-View 80 has to offer in each program.

TEXT-80

With **TEXT-80**, you have all the capabilities of your existing TEXT program in addition to those new features that T-WORD has added. The only difference is that now you will be able to view up to 50% more text on your display at once. Like all ROM-View 80 applications, you are free to set your right margins anywhere from 10 to 80-columns. You may select TEXT-80 directly from the main ULTIMATE ROM II menu or enter it directly from T-WORD. See Section 2 of this manual for details.

BASIC-80

With **BASIC-80**, you can both edit and run BASIC programs that use the ROM-View 80 LCD driver.

Special calls are documented so you can develop your own ROM-View 80 applications. See Section 3 of this manual for details.

TELCOM-80

With **TELCOM-80**, you can send and receive telecommunications from other computers while using the 80-column display format. TELCOM-80 has been proven to reduce your connect time while downloading files because it speeds up your computers "throughput" rate. With TELCOM-80 you have on-screen compatibility with computers whose screen capacities are greater than that of your notebook computer. TELCOM-80 operates much like the TELCOM program built into your computer. See Section 4.

OTHER ROM-View 80 APPLICATIONS

ROM-View 80 may also be used while using T-WORD, IDEA!, and T-BASE. If ROM-View 80 is on, several options in these programs will use the enhanced 80 column display. T-WORD allows for the TEXT, Page Break, and Display options to use the 80-column display. IDEA! allows for a special multi-level preview mode and editing of notes, and T-BASE will provide the capability to define 80-column LCD reports. See Section 5 for more detail about other ROM-View 80 applications.

Note: This manual is written on the assumption that you are already familiar with the TEXT and TELCOM programs of your computer. If you are not, please familiarize yourself with these matters before using ROM-View 80.

CONVENTIONS

Use of the <Angle> Brackets

In this book you will read sentences like these:

> Press <ESC> to continue.
>
> Use the <CTRL> key to do this.

What these have in common is the use of the < > brackets. The brackets tell you the exact keys you should use.

Read the above sentences as:

> Press the key labeled ESC to continue.
>
> Use the key labeled CTRL to do this.

<ENTER> Key

<ENTER> is the key you press to make the computer respond to your entry.

On the Model 100, this key is actually identified as <ENTER>. But on the NEC PC-8201, it is marked like the example at the right.

If you have a NEC PC-8201, remember to press this key wherever in this manual I indicate to press <ENTER>.

MEMORY CONSIDERATIONS

Unlike all the other applications on the ULTIMATE ROM II, ROM-View 80 is a RAM-resident "background" utility similar to many of the popular utilities available for the IBM PC.

This means that if you activate ROM-View 80 there is the chance it will conflict with software from other vendors which use machine-code routines in upper memory. We have made every effort to avoid any conflicts, but please be forewarned. If you suspect a conflict, it is a good idea to do some tests so that you don't inadvertently cold start your computer and lose valuable data.

If you happen to have another machine-code program in high memory when you try to start ROM-View 80, you will see this prompt: **Change HIMEM?** Press <Y> to remove the other program; then enter a width for ROM-View 80. (If you press any other key but <Y>, the other program will remain in high memory, and you will not be able to use ROM-View 80.)

If you are just using the ULTIMATE ROM II and no other machine-code programs at the same time, there is no danger of software conflicts.

Since ROM-View 80 is RAM-resident, it does occupy RAM memory while active. You need about 4K of memory to operate ROM-View 80. ROM-View 80 will operate only inside the ULTIMATE ROM II "shell" and will automatically clear itself from memory whenever you return to the main menu of your computer.

Section 2

Using TEXT-80

INTRODUCTION

TEXT-80 operates identically to your regular TEXT program except that your display will show up to 8 x 60 columns of text at one time. You will also have all the features that T-WORD has added to the TEXT program while in TEXT-80.

The width of your display may be set anywhere from 10 to 80 columns before entering TEXT 80. This is easily accomplished from the main Ultimate ROM II menu by selecting View80 "on" and setting a width.

All TEXT functions are available while using TEXT-80 including cut and paste, find, and T WORD features like search and replace, overwrite toggle, and character/word count. TEXT-80 will automatically word wrap at what ever column you have set your width -- anywhere from 10 to 80 columns. If you are writing an article that needs to fit in a 30 character column width, using ROM-View 80 with a width set to 30 will show you how your actual document will look.

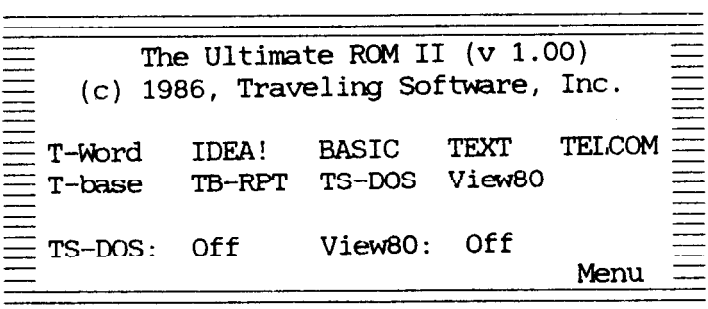
TEXT-80 will automatically scroll horizontally if you have set a width greater than 60 columns. This scrolling will occur anytime the cursor is positioned to a column greater than 60. All regular TEXT cursor movement options are supported by ROM-View 80 including <SHIFT> and <CTRL> arrow keys. See appendix A for a summary.

TEXT-80

To begin using TEXT-80, you must first select the View80 option from the main Ultimate ROM II menu and set a width between 10 and 80 columns. The following is a detailed summary for getting started using TEXT-80.

Entering TEXT-80

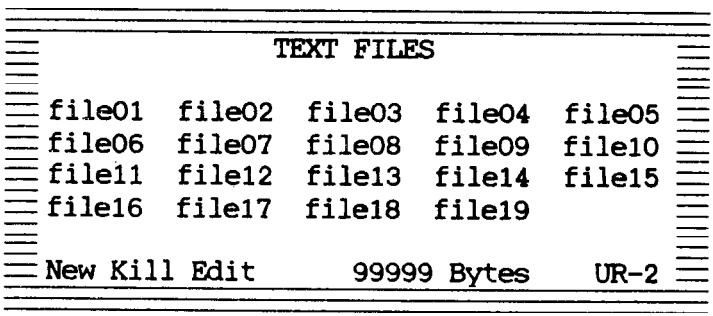
Locate View80 in the Ultimate ROM II main menu screen. Place the cursor over the name and press <ENTER> to start the program. Your display will look something like this:



Notice that on the bottom of the display View80 will now be labeled as "ON" and that you will be asked to supply a width. Type any width between 10 and 80 columns. We recommend 60--the default--for most TEXT uses.

Now go ahead and place the cursor on the main Ultimate ROM II menu over TEXT and press <ENTER>.

The menu clears from the screen, and you will now see a second menu with only your existing ".DO" files displayed.



You may now either select an existing TEXT file displayed on the menu using the bar cursor, or you can press function key <F1> labeled <New> to create a new TEXT file.

To create a new file, press the <New> function key (F1) and type a name of up to six characters and then press <ENTER>; you do not need to type the you can begin entering text just as you do in the regular TEXT program, using any of the editing functions available there.

PLEASE NOTE: TEXT-80 function key labels are displayed using the 80 column font and are designed to work on an 80 column display. Thus, not all labels will be visible at once while using TEXT-80. If your display is set greater than 40 and less than 80, some labels will not be visible at all. **BUT THEY ALL WORK JUST THE SAME!**

Horizontal Scrolling

If your ROM-View 80 width has been set to a value greater than 60, you will not be able to see the far right margins of your display without horizontal scrolling. ROM-View 80 will automatically do this for you anytime your cursor is moved to a column position that is greater than 60.

For example, say you are typing in a letter and your TEXT-80 width has been set at 80 columns. You will notice as you type a line greater than sixty columns that your display automatically shifts to the right as you type. The following table of cursor movement keys are also helpful for TEXT-80 horizontal scrolling. Please note these are the same commands that are used by your TEXT program.

Cursor Movement	Keys-to-Press M100/200 & NEC-PC-8201
To right end of line	<CTRL> --> or <CTRL> R
To left end of line	<CTRL) <-- or <CTRL> Q
Right one word	<SHIFT> --> or <CTRL> F
Move left one word	<SHIFT> <-- or <CTRL> A
To end of preceding line	<left arrow> at column 1

Adjusting Display Width

Adjusting the TEXT-80 display width must be done using the View80 option on the main Ultimate ROM II menu. Refer to the begining of this section for details on how to set the ROM-View 80 display width.

Exiting TEXT-80

When you are finished with TEXT-80, press <F8> on the Model 100 or <SHIFT> <f5> on the NEC PC-8201. Any text you have entered is saved, and you are returned to the main Ultimate ROM II menu screen.

Section 3

Using BASIC-80

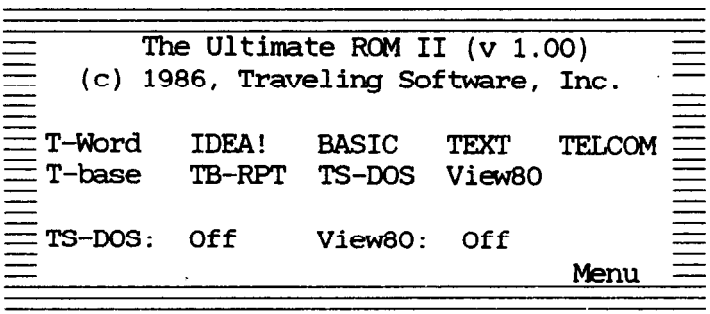
INTRODUCTION

BASIC-80 works almost identically to your regular BASIC program, only now you can both edit BASIC programs using the enhanced ROM-View 80 column display as well as write specific BASIC programs that utililize the capabilities of ROM-View 80. With BASIC 80, it is now possible to design your own programs using all the features contained in ROM-View 80. The following section provides all the specific addresses and programming techniques you will need to know to develop your own BASIC-80 programs.

BASIC-80

Entering BASIC-80

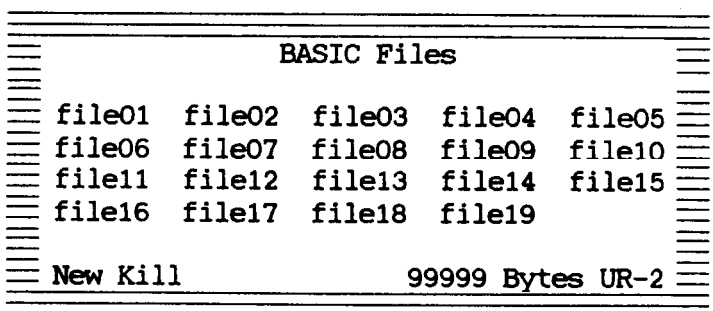
To start using BASIC-80, you will first need to turn ROM-View 80 on. Locate View80 on the ULTIMATE ROM II main menu screen. Place the cursor over the name and press <ENTER> to start the program. Your display will look something like this:

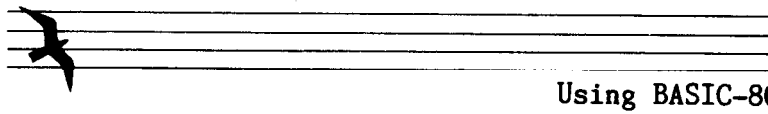


Notice that on the bottom of the display, View80 will now be labeled as "ON" and that you will be asked to supply a width. Type any width between 10 and 80 columns. We recommend 60--the default--for most BASIC uses.

Now go ahead and place the cursor on the main Ultimate ROM II menu over BASIC and press <ENTER>.

The menu clears from the screen, and you will now see a second menu with only your existing ".BA" files displayed.





You may now either select an existing BASIC program displayed on the menu using the bar cursor, or you can press function key <F1> labeled <New> to go directly into the BASIC-80 editor.

WARNING! -- DO NOT ATTEMPT TO EXECUTE AN EXISTING BASIC PROGRAM USING ROM-View 80 BEFORE READING THE SPECIAL PROGRAMMING CONSIDERATIONS SECTION. MOST BASIC PROGRAMS WILL NEED TO BE MODIFIED TO USE ROM-View 80. FAILURE TO DO THIS MAY CAUSE YOUR COMPUTER TO LOCK UP AND COLD START LOSING ALL EXISITING FILES IN MEMORY.

To start up an existing BASIC program, move the wide bar cursor over its name on the menu and press <ENTER>. You will now see that program operating using the ROM-View 80 character font.

To create a new programm, press the <New> function key (F1). You are now in the BASIC-80 program editor. On the blank screen that appears, you can begin entering BASIC statements just as you do in the regular BASIC program, using any of the editing functions available there.

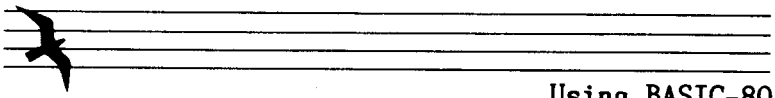
PLEASE NOTE: BASIC-80 function key labels are designed to be displayed using a width setting of either 40 or 80 columns. Any other width setting will produce a strange looking label line. If you are using a width of 80, several labels will appear when you horizontally scroll. All BASIC function keys are still active using BASIC-80 regardless of how the function key labels appear.

Horizontal Scrolling

If your BASIC-80 width has been set to a value greater than 60, you will not be able to see the far right margins of your display without horizontal scrolling. BASIC-80 will automatically do this for you anytime your cursor is moved to a column position that is greater than 60.

For example, say you are typing in a program and your BASIC-80 width has been set at 80 columns. You will notice as you type a line greater than sixty columns that your display automatically shifts to the right as you type. The following table of cursor movement keys are also helpful for BASIC-80 horizontal scrolling while editing a BASIC-80 program. Please note these are the same commands that are available to you while editing a regular BASIC program.

Cursor Movement	Keys-to-Press M100/200 & NEC-PC-8201
To right end of line	<CTRL> --> or <CTRL> R
To left end of line	<CTRL) <-- or <CTRL> Q
Right one word	<SHIFT> --> or <CTRL> F
Move left one word	<SHIFT> <-- or <CTRL> A
To end of preceding line	<left arrow> at column 1



To control ROM-View 80 horizontal scrolling from within BASIC programs, see the following section titled "Writing Your Own BASIC-80 Programs".

Adjusting Display Width

Adjusting the BASIC-80 (editor) display width must be done using the View80 option on the main Ultimate ROM II menu. Refer to the begining of this section for details on how to set the ROM-View 80 display width. To adjust display width from a BASIC-80 program, refer to the following section titled "Writing BASIC-80 Programs".

Exiting BASIC-80

When you are finished with BASIC-80, press <F8> on the Model 100 or <SHIFT> <f5> on the NEC PC-8201. If you were writing a new BASIC program, don't forget to first SAVE your new file before exiting.

Writing Your Own BASIC-80 Programs

The following four "hooks" into the BASIC-80 LCD display driver are provided to allow you to control the "VIEW-80" display from your own BASIC programs.

Remember: View-80 must be first turned "on" from the main Ultimate ROM II menu before BASIC-80 programs can execute.

1) To activate the ROM-View 80 LCD display driver:

Model 100:

```
IF PEEK(MAXRAM)=64
   THEN CALL MAXRAM+10
   ELSE PRINT TAB(85)"ROM-View 80 IS NOT ON"
```

NEC PC-8201:

```
MR!=PEEK(63948)+PEEK(63949)*256
IF PEEK(MR!)=64
   THEN EXEC MR!+10
   ELSE PRINT TAB(85)"ROM-View 80 IS NOT ON"
```

If you are writing BASIC-80 programs it is a good idea to first check to see if the ROM-View 80 driver is on before attempting to set any of the BASIC-80 display options. (Both of the above routines perform this check). Otherwise you will run the risk of poking values up in high memory that may cause your computer to do unpredictable things. Performing this check will also act as a safeguard in the event you accidentally start up a BASIC-80 program while outside of the Ultimate ROM II environment.

2) To deactivate the ROM-View 80 LCD display driver:

Model 100:

```
CALL MAXRAM+13
```

NEC PC-8201:

```
MR!=PEEK(63948)+PEEK(63949)*256:
EXEC MR!+13
```

If the ROM-View 80 driver is turned on from the

main Ultimate ROM II menu, you may want to use the enhanced 80-column character font only at certain times in your program. It is easy to switch back and forth at any time by activating and deactivating the VIEW 80 driver--but this may affect how your display print statements look. Please refer to page 3-8, Special Programming Considerations.

3) Adjusting Display Width:

Model 100:

```
POKE 61072,59:POKE 63036,PEEK(61072)+1
              (sets width to 60 col)
              use any value between 9 and 79
```

NEC PC-8201:

```
POKE 60455!,79:POKE 62440!,PEEK(60455!)+1
               (sets width to 80 col)
               use any value between 9 and 79
```

BASIC-80 will allow you to adjust your display width at any time while using the enhanced 80-column character font. Please note that the width setting determines how you address your display.

For example, if you have a statement that says PRINT@65,"this is a test", with the normal 40-column font this would appear on the second line of your display and indented 14 spaces. If you performed the same statement using BASIC-80 with a width set at 60, it would still appear on the second line of your display but indented 4 spaces. A width setting of 80 would print the same statement on the first line of your display starting at

column 65.

4) Turning Horizontal Scrolling ON and OFF

Model 100:

POKE 61803,58 (scrolling on) POKE 61803,201 (off)

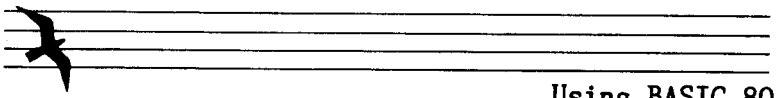
NEC PC-8201:

POKE 61186!,58 (scrolling On) POKE 61186!,201 (off)

The default setting of ROM-View 80 is for horizontal scrolling to be on. In most cases you will want to leave it this way. There may be applications where you are listing 80 column text and you do not want the distraction of the display shifting back and forth and therefore would want to temporarily turn off the automatic horizontal scrolling feature.

Special Programming Considerations

Before executing any existing BASIC programs under ROM-View 80, you should check for the existence of the following BASIC commands. These commands are divided into two categories; level one fatal commands and level two modified commands. All commands are listed as Tandy 100/200 unless otherwise noted.



Level One BASIC commands to avoid:

CALL	EXEC (NEC)
POKE	
LOADM	BLOAD (NEC)
SAVEM	BSAVE (NEC)
RUNM	
CLOADM	BLOAD"CAS:" (NEC)
CSAVEM	BSAVE"CAS:" (NEC)
SCREEN	

The existence of any of the above commands may cause your computer to do a "cold restart" clearing your existing memory.

If you need to use the SCREEN command, substitute the following calls instead:

Model 100	CALL 17064 (labels on)
	CALL 17034 (labels off)
NEC 8201	EXEC 17124 (labels on)
	EXEC 17091 (labels off)

The following level two commands will likely operate somewhat differently with ROM-View 80 but should not cause any fatal cold restarts of your computer:

FILES	PRINT@ or PRINT@ USING	LOCATE (NEC)
INKEY$	PSET	
INPUT$	TAB	
LINE		
LINE INPUT		
POS		
PRESET		

PSET, PRESET, and LINE will appear more compact under most circumstances because of ROM-View 80's pixel mapping. Values used should stay within the width setting of ROM-View 80. Also, any special graphics characters will look different from normal when using ROM-View 80.

When using PRINT@, PRINT SPACE$, PRINT TAB, or POS, you must be careful to determine your screen position. Your actual screen location will depend on your ROM-View 80 width setting.

The following formula should be useful in determining your screen location:

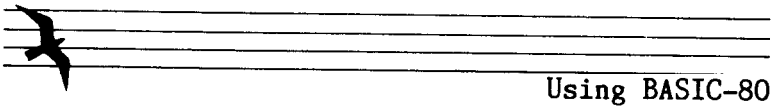
ROM View 80 Print@ value=(Width*(line #-1)+column)

For example, to print at the 30th column of the third line with a ROM-View width set to 50, the PRINT@ value would be 130:

(50*(3-1)+30) = 130

NOTE FOR NEC OWNERS: The LOCATE command will work normally, but with ROM-View 80 you may use a horizontal coordinate value between 0 and 79, depending on the width setting. Please be sure that your LOCATE horizontal value is always **less than** the current width setting of ROM-View 80.

If a width is set greater than 60 and you wish to scroll the display over to view information, ROM-View requires that a visible cursor be present to "hold" your shifted display. If you are using the INKEY$ command to do this, you should execute a PRINT CHR$(27)"P" immediately before the INKEY$ to



turn on the cursor. To get a better idea of what is required to perform horizontal scrolling in ROM-View 80, please refer to the routines published in Appendix B of this manual.

One final consideration when programming with ROM-View 80, both the INPUT and LINE INPUT commands will allow a longer prompt line than normal if you have your width set greater than 40 columns.

Have fun writing your own ROM-View 80 programs! We look forward to hearing about your applications.

Program Examples Using BASIC-80

Appendix B of this manual contains a BASIC program example using the features of ROM-View 80. You will find many of these routines helpful in developing your own ROM-View 80 programs.

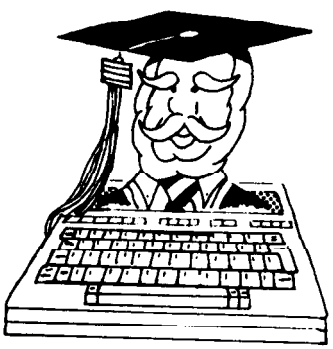
Pay particular attention to the cursor scrolling routines. These should be very helpful in setting up 80 column display programs.

Section 4

Using TELCOM-80

INTRODUCTION

TELCOM-80 lets you see communications from other computers using the ROM-View 80 display, freeing you from the 40-column limitation of your computer.



You may use TELCOM-80 either in an interactive exchange of information with another computer or in receiving and storing data files. Now, for instance, you can read columns of figures as they were entered on screens of 80 columns, without having to resort to a printer. TELCOM-80 brings immediate readability to incoming files, allowing you to make decisions on the spot.

You may set your own text width--anything from 10 to 80 columns--and switch back and forth between the regular mode and the enhanced mode any time while you are telecommunicating.

TELCOM-80 does not affect the way in which your computer stores incoming files or transmits your files to other computers. Of course, any file you receive using TELCOM-80 can be viewed later using the TEXT-80 option explained earlier in this book.

TELCOM-80

Using TELCOM-80 to communicate with other computers is identical in many respects to using the TELCOM program built into your computer. The main difference is the additional functions in TELCOM-80 that give you access to the enhanced mode.

Most of what you must know about operating TELCOM-80, therefore, is explained in the manuals for your computer and for the external modem, if you have one. Before reading further in this section, make sure that you are familiar with the instructions in those manuals.

You should know about these matters in particular:

- how to connect your computer to the telephone lines--whether by built-in modem, or an external modem via the serial RS232 port
- how to set communication parameters to match those of the computer with which you are communicating
- how to dial the number of the other computer--whether manually or automatically, through your computer or a telephone
- whether to select half or full duplex

Starting Up TELCOM-80

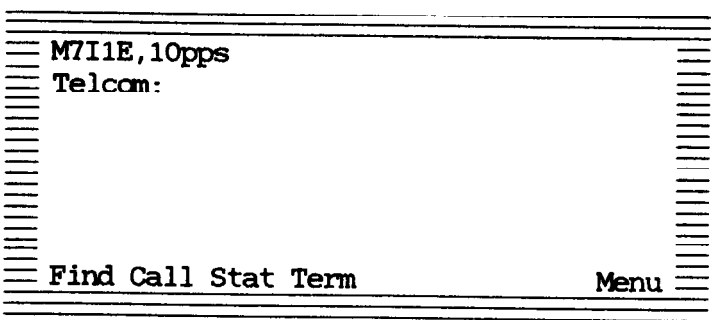
To select TELCOM-80, make sure you have turned ROM-

VIEW 80 on from the main Ultimate ROM II menu and then move your menu cursor over TELCOM (on the main ULTIMATE ROM menu) and press <ENTER>. Like all ROM-View 80 applications, TELCOM-80 must be accessed from within the Ultimate ROM II menu.

The screen that now appears is identical to the one you see when you enter the TELCOM program built into your computer. For a quick review of what you must do next, continue reading--either in the section dealing with the Tandy Model 100 or in the one dealing with the NEC PC-8201.

If you already know the ins and outs of TELCOM, turn to "Operating in Enhanced Mode" on page 4-7.

Model 100. This is the first screen to appear on the Model 100 once you select TELCOM-80:



The functions available to you in this screen are identical to those available through TELCOM:

F1/Find	Finds and dials the number you select from your ADRS.DO file
F2/Call	Dials the number you type and enter

F3/Stat	Changes the TELCOM parameters to whatever you type and enter
F4/Term	Enters the terminal mode, in which you may begin sending and receiving
F8/Menu	Returns you to the main system screen of your computer

Before proceeding, make sure that the <ANS/ORIG> switch on the left side of the computer is set to ORIG. If you are using the built-in modem, set the <DIR/ACP> switch, also on the left side of the computer, to DIR; if you are using an acoustic coupler, set it to ACP. Then follow these steps:

1. Check the default parameters listed in the upper left corner of the screen. You may want to go ahead with the defaults as they are; then if you are unable to establish a connection with the other computer, check the parameters required by that computer and change the default parameters on your computer to match.

2. Dial the number--by using your ADRS.DO file, by typing the number on your keyboard, or by dialing the number on a telephone attached to your computer.

3. Then, when the connection is made, press <F4> to enter the terminal mode. (The Model 100 may enter the terminal mode automatically if you have used the computer to dial the number.)

4. Once in the terminal mode, you see a screen that is blank except for these prompts:

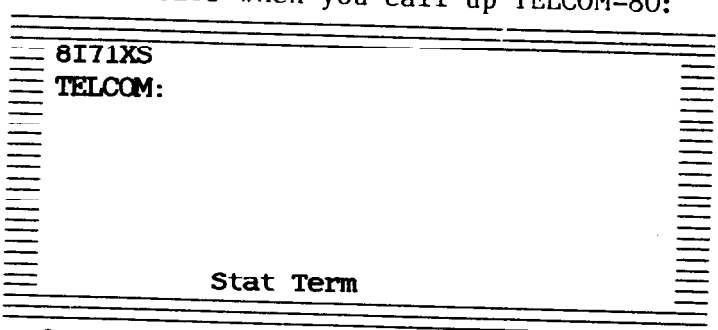
Prev	Down	Up	Full	Bye
[F1]	[F2]	[F3]	[F4]	[F8]

The only matter you must concern yourself with here is whether to select full or half duplex. Pressing <F4> switches between the two.

The general rule is to accept the default--full duplex. But if you notice that characters you type to another computer do not appear on your own screen, return to this screen and switch to half duplex by pressing <F4>.

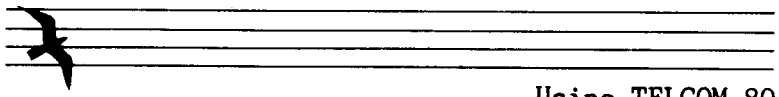
Note: The Echo, Upload, and Previous commands available in TELCOM will not be available once you enter enhanced mode.

NEC PC-8201. This is the screen that appears on the NEC PC-8201 when you call up TELCOM-80:



The functions available to you in this screen are identical to those in TELCOM:

f4/Stat Changes the TELCOM parameters to



Then if you notice that characters you type to another computer do not appear on your own screen, switch to half duplex by pressing <f2>.

Note: The Echo, Upload, and Previous commands available in regular TELCOM will not be available once you enter enhanced mode.

Operating in Enhanced Mode

As soon as you enter the terminal mode and have determined the duplex setting, you are ready to enter the enhanced mode of TELCOM-80.

TO ENTER THE TELCOM-80 Enhanced Display Mode:

Press <down arrow>.

The first thing you see in the enhanced mode is a blank screen. Though they lack prompts, there are four functions available here. With these functions you can

- prepare to receive a file from another computer and store it as a .DO file in your own computer
- adjust the text width to any number of columns from 10 to 80
- display on your screen special control characters instead of processing those characters
- exit to the terminal mode of TELCOM-80

Download. The download mode allows you to receive text files from other computers. Press <F1> <D>, and this message appears: File to Download?

In lower- or uppercase, type a name to identify the file you are to receive. Type up to six characters; you do not have to include the .DO suffix. Press <ENTER>.

When naming a file to be downloaded, type a file name that does not already exist. Should you type the name of a file already in your computer, the contents of that file will be lost.

You are now ready to receive the file and view it in enhanced mode as it comes across the telephone lines. The file will be stored in your computer's memory under the file name you have assigned it.

TO EXIT DOWNLOAD AT ANYTIME -- PRESS <F1> D
you will then see the following message:
Download Aborted

On the Model 100 press <F8>; on the NEC PC-8201, <SHIFT> <f5>. You are then returned to the terminal mode. Any information received to that point will have been saved in your computer. Should your computer run out of memory while receiving a file, download will be aborted automatically and you will receive this message:

Download Aborted

Text Width. When you enter the enhanced mode, the text width defaults to the value you set in the Ultimate ROM II main menu.

To change the text width, press <F1> <W>. You then see this message:

Width:

Type a number from 10 to 80 and press <ENTER>.

You may change the text width any time while you are telecommunicating. The transmission halts as soon as you press <F1> <W> and resumes as soon as you type a new width and press <ENTER>.

Snoopy Mode. Snoopy mode, a feature designed for advanced users of TELCOM, allows you to see on your screen any special, non-printing control characters in a data file you are receiving.

If you are receiving tabulated data in snoopy mode, for instance, columns of figures may appear on your screen not in columns but in an unformatted form, each tabulated figure preceded by the character "H".

The default is snoopy mode off. To turn it on, press <F1> <S>.

More often than not, you will want to see the file as it was formatted on the other computer--that

is, with snoopy mode off. Once in a while, however, control characters from another computer may produce undesired effects on your screen. One such character might delete a line; another might clear the screen entirely. Switching to snoopy mode will solve the problem and help you identify the offending characters.

The rule of thumb is to start with snoopy mode off. Then if you run into problems of the sort just described, turn snoopy mode on. You may change snoopy mode any time during a transmission. Note: Snoopy mode affects only what appears on your screen. It does not affect the way data is received and stored in your computer.

Exit. Use Exit to return to the terminal mode. Press <F8> on the Model 100 or <SHIFT> <f5> on the NEC PC-8201.

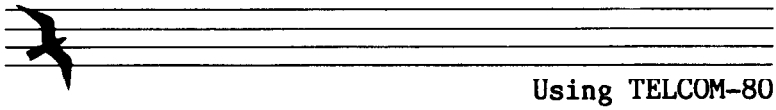
Exiting TELCOM-80

While in the enhanced mode, you may use the Exit command to terminate a transmission or to begin signing off once the transmission is complete.

Once back in the terminal mode, heed the Bye prompt to disconnect the telephone lines and leave the terminal mode: Press <F8> on the Model 100 or <SHIFT> <f5> on the NEC PC-8201.

On the Model 100 this prompt appears:

Disconnect?



Once you type "Y", press <ENTER>, and press <F8>, you are back at the main system screen.

After using the Bye command on the NEC PC-8201, press <SHIFT> <f5> to return to the main system screen.

Section 5

Other ROM-View 80 Applications

ROM-View 80 has also been designed to work with the other ULTIMATE ROM applications such as T-WORD, IDEA!, and T-base. Because ROM-View 80 is always active, running in the background, certain options will automatically use the View 80 enhanced display if it has been activated from the main Ultimate ROM II menu.

T-Word

If ROM-View 80 is turned on from the main ULTIMATE ROM II menu, then T-Word will use the enhanced 80 column display for both the <Page Break>, <TEXT> <Display> options. These options are available on the main T-Word formatting menu (refer to tne T-WORD manual). The following is a brief description of each T-Word option that works when ROM-View 80 is active:

TEXT - If ROM-View 80 is on, then this option will take you directly into TEXT-80. Refer to TEXT-80 section in this manual.

PBrk - Page break option will display text using the line width set by ROM-View 80.

Disp - Display formatted text option will use a screen width set by ROM-View 80.

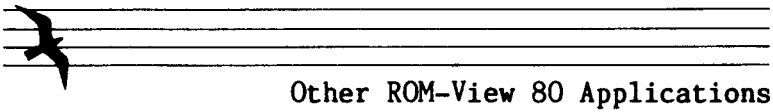
IDEA!

The Ultimate ROM II IDEA! has two powerful new features that can take advantage of the ROM-View 80 enhanced display. The following is a brief description of these features:

Preview - The preview mode is invoked anytime while using IDEA! by pressing the <space bar>. Preview mode will allow you to view and scroll though an outline showing headings and all levels of subheadings at once. With ROM-View 80 turned on, preview mode will show up to 50% more on your display at one time using a full 60 column display.

Notes - The notes feature of IDEA! has been expanded to include all the features available in TEXT. In fact, while using the IDEA! notes feature you will also have all TEXT enhancements added by T-Word available, such as search and replace, overtype, and word/line count. If ROM-View 80 is turned on, IDEA! notes will have all the features and capabilities of TEXT-80. (refer to the TEXT-80 Section in this manual).

Please refer to the "What's New" insert in your IDEA! manual for more details about using the View 80 options.



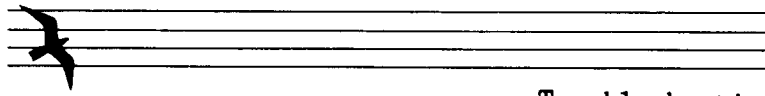
T-base

ROM-View 80 will allow T-base to set up report files that have been designated to print on the LCD display using a full 60-column display. Due to the nature of the complexity of T-base sharing information from multiple files and the advanced calculation functions added, it is not possible to set up screen files that use ROM-View 80.

To use ROM-View 80 with T-base, use the <OUT,REPORT,LCD:> command in a T-base report definition file. If ROM-View 80 is turned on at the time, T-base will automatically format your report on your computer's display using a full 8 x 60 column display. Please refer to the "What's New" insert in your T-base manual for more details.

Section 6

Troubleshooting



KEYS TO AVOID WHILE USING ROM-View 80

While you are using ROM-View 80, it may be possible that by pressing certain keys you are suddenly returned to the main MENU of your computer, or the system locks up.

These are the keys to avoid pressing while using the Ultimate ROM II and ROM-View 80:

Tandy Model 100	<LABEL>, <PRINT>, <PAUSE>, <SHIFT> <BREAK>, <CTRL> <C>, <CTRL> <S>, <RESET>
NEC PC-8201	<INS>, <STOP>, <CTRL> <C>, <CTRL> <S>, <RESET>

SYSTEM LOCKUP

When the system locks up, you remain in the program, but it does not respond to normal commands.

If this happens, try these corrections in the order listed:

1. On the Model 100, press <F8> several times to end the program. On the NEC PC-8201, simultaneously press <SHIFT> <F5>.

2. On the Model 100, press <PAUSE>; on the NEC PC-8201, press <CTRL> <Q>.

3. Press <SHIFT> and <BREAK> simultaneously if you have a Model 100. If you have an NEC PC-8201, press <STOP>. Then type

MENU

Press <ENTER>, and you'll return to the main system screen.

4. If all else fails, press the <RESET> button on the back of your computer.

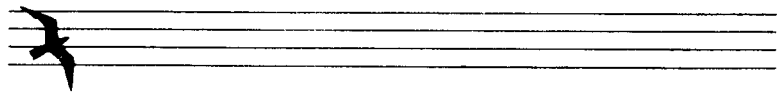
If you encounter an error message while using a BASIC-80 program, please refer to your computer's BASIC manual for a list of BASIC program error messages.

As a final check, make sure that you have enough memory to operate the program.

REMEMBER, ROM-View 80 IS A RAM RESIDENT UTILITY AND REQUIRES APPROXIMATELY 4K OF AVAILABLE MEMORY TO OPERATE

When all else fails, please write to me:

The Traveling Professor
Traveling Software
11050 Fifth Avenue N.E.
Seattle, Washington 98125



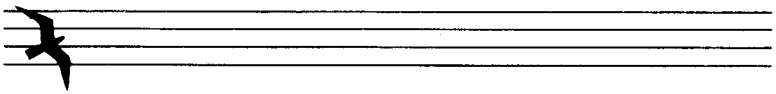
APPENDIX A
SUMMARY OF USEFUL KEYS

TEXT-80

Cursor Movement	Keys-to-Press M100/200 & NEC-PC-8201
To right end of line	<CTRL> --> or <CTRL> R
To left end of line	<CTRL) <-- or <CTRL> Q
Right one word	<SHIFT> --> or <CTRL> F
Left one word	<SHIFT> <-- or <CTRL> A
To end of preceding line	<left arrow> at column 1

TELCOM-80

Model 100	NEC PC-8201	Functions
<down arrow>	<down arrow>	Leaves terminal mode and enters enhanced mode
<F1> <D>	<f1> <D>	Enters download mode, enabling you to receive file
<F1> <W>	<f1> <W>	Allows you to reset text width
<F1> <S>	<f1> <S>	Enters/leaves snoopy mode
<FS>	<SHIFT> <f5>	Returns to terminal mode

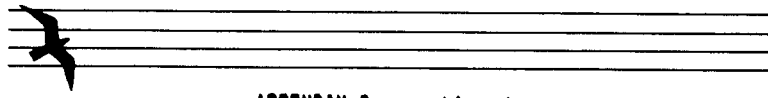


APPENDIX B
SAMPLE ROM-View 80 BASIC PROGRAM

```
10  'Sample program demostrating horizontal scrolling
20  '
30  '::::::::::::::::::::[ List of Varibles to be used ]::::::::::::::::::
40  '
50  X=0 : Y=0                   'integers used for cursor position
60  ES$ = CHR$(27)              'ASCII value for escape
70  LL$ = ES$+"V"               'lock scroll line
80  UL$ = ES$+"W"               'unlock scroll line
90  V1$ = ES$+"p"               'reverse video on
100 V2$ = ES$+"q"               'reverse video off
110 HM$ = ES$+"H"               'Home cursor, do not erase sreen
120 UP$ = ES$+"A"               'move cursor up one line
130 DN$ = ES$+"B"               'move cursor down one line
140 RT$ = ES$+"C"               'move cursor right one line
150 LT$ = ES$+"D"               'move cursor left one line
160 DL$ = ES$+"M"               'delete a line
170 CL$ = ES$+"K"               'erase of cursor to end of line
180 IL$ = ES$+"L"               'insert a line at cursor position
185 CO$ = ES$+"P"               'cursor on (used for inkey)
190 XY$ = ES$+"Y"               'position cursor at xy location
195 BL$ = XY$ + CHR$(39)+CHR$(32) 'positions cursor at bottom of screen
200 G$  = CHR$(7)              'CTRL - G  (used to prompt gotoxy)
210 Y$  = CHR$(25)              'CTRL - Y  (used to delete a line)
220 T$  = CHR$(20)              'CTRL - T  (used to delete to end of line)
230 N$  = CHR$(14)              'CTRL - N  (used to insert a line)
240 CR$ = CHR$(13)              'carriage return
250 LF$ = CR$+CHR$(10)          'carriage return + a line feed
260 BS$ = CHR$(8)               'non-destructive backspace
270 DE$ = CHR$(127)             'destructive backspace
280 A1$ = CHR$(30)              'up arrow key
290 A2$ = CHR$(31)              'down arrow key
300 A3$ = CHR$(28)              'right arrow key
310 A4$ = CHR$(29)              'left arrow key
320 C1$ = CHR$(23)              'CTRL + up arrow key
330 C2$ = CHR$(26)              'CTRL + down arrow key
340 C3$ = CHR$(18)              'CTRL + right arrow key
350 C4$ = CHR$(17)              'CTRL + left arrow key
355 'MR!=PEEK(63948)+PEEK(63949)*256 'FOR NEC MAXRAM
360 '
370 '::::::::::::::::::::[ End of variable list ]::::::::::::::::::::::::
```

APPENDIX B - continued

```
390 ':::::::::::::::::[ See if ROM-VIEW 80 is on ]:::::::::::::::::::::::
400 '
410 IF PEEK(MAXRAM)=64 THEN GOTO 500 'for TANDY
420 'IF PEEK(MR!)=64 THEN GOTO 501 'for NEC
430 'If ROM-VIEW 80 is not on then tell user and end program
440 CLS : PRINT : PRINT : PRINT : PRINT TAB(7)"ROM-VIEW 80 IS NOT ON"
450 BEEP : BEEP : GOTO 830
460 '
470 ':::::::::::::::::::[ Start of Main Program ]:::::::::::::::::::::::
480 '
490 'activate ROM-VIEW 80 and set to 80 Columns
500 CLS:CALL MAXRAM + 10 'for TANDY
501 'CLS:EXEC MR! + 10 ' for NEC
505 POKE 61072,79:POKE 63036,PEEK(61072)+1    'for TANDY 100
506 'POKE 60455!,79:POKE 62440!,PEEK(60455!)+1 'for NEC
510 PRINT LL$;                                'no scrolling past line 7
520 PRINT V1$;                                'turn reverse video on
530 PRINT "+++++++++1+++++++++2+++++++++3+++++++++4+++++++++5+++++++++
6+++++++++7+++++++++8";
540 PRINT V2$;                                'turn reverse video off
541 'for faster right scrolling change line 545 to A$=INPUT(1)
542 'and delete line 550
545 PRINT CO$;                                'turn cursor on
550 A$=INKEY$ : IF A$="" THEN 550             'get character
560 '
570 'Process command or print character
580 '
590 IF A$ = ES$ THEN GOTO 810                 'escape?, then quit
600 IF A$ = CR$ THEN GOSUB 900               'carriage return?
610 IF A$ = DE$ OR A$ = BS$ THEN GOSUB 930 'del or bs key?
620 '
630 'The next command process the arrow keys if entered?
640 IF A$=A1$ OR A$=A2$ OR A$=A3$ OR A$=A4$ THEN GOSUB 990
650 '
660 IF A$=C1$ OR A$=C2$ OR A$=C4$ THEN GOSUB 1000
680 IF A$=C3$ THEN GOSUB 1120                 'CTRL + right arrow key?
690 '
700 'CTRL Y, T or N ?
710 IF A$=Y$ OR A$=T$ OR A$=N$ THEN GOSUB 1170
720 IF A$=G$ THEN GOSUB 1230                  'CTRL-G?
730 'A character or decimal or special character?
```




```
740 IF A$>CHR$(31) AND A$<CHR$(127) THEN GOSUB 960
750 '
760 'A$ should be set "" by now or user hit a wrong key
770 'if it is "" then go back and get another character
780 'else ring bell and go get another character
790 IF A$="" THEN GOTO 545
800 BEEP : BEEP : GOTO 545
810 PRINT UL$                   'unlock line 7
820 CLS                         'clear the screen
830 END                         'All Done
840 '
850 '::::::::::::::::::::::::[ End of the Program ]::::::::::::::::::::::::
860 '
870 ':::::::::::::::::::::::::[ Subroutines ]:::::::::::::::::::::::::::
880 '
890 'print a carriage return
900 PRINT LF$; : A$=""
910 RETURN
920 'delete a character
930 PRINT DE$; : A$=""
940 RETURN
950 'print a character
960 PRINT A$; : A$=""
970 RETURN
980 'cursor movement
990 IF A$=A1$ THEN PRINT UP$;
1000 IF A$=A2$ THEN PRINT DN$;
1010 IF A$=A3$ THEN PRINT RT$;
1020 IF A$=A4$ THEN PRINT LT$;
1030 IF A$=C1$ THEN PRINT HM$+CR$
1035 IF A$=C2$ THEN PRINT BL$;
1040 IF A$=C4$ THEN PRINT CR$:    'horizontal scroll left
1050 A$=""
1060 RETURN
1110 'horizontal scroll right
1120 PRINT CR$;     'puts cursor in column 1
1130 FOR I = 1 TO 80 : PRINT RT$; : NEXT I 'gets use to column 80
1140 A$=""
1150 RETURN
1160 'delete and inserting lines
1170 IF A$=Y$ THEN PRINT DL$;
1180 IF A$=T$ THEN PRINT CL$;
```

APPENDIX B - continued

```
1190 IF A$=N$ THEN PRINT IL$;
1200 A$=""
1210 RETURN
1220 'cursor positioning
1230 PRINT BL$;:PRINT "      ROW:"; : PRINT CR$; : INPUT Y : PRINT DL$;
1240 PRINT BL$;:PRINT "     COLUMN:"; : PRINT CR$; : INPUT X : PRINT DL$;
1250 X=X+31 : Y=Y+32
1260 PRINT XY$ + CHR$(Y) + CHR$(X);
1270 X=0 : Y=0 : A$=""
1280 RETURN
```

For NEC:

Uncomment lines 355, 420, 501, 506
Comment lines 410, 500, 505

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Name_____

Street_____

City_____ State ____ Zip _____

Phone_____ Date_____

Nature of Problem

_____Software _____Documentation

Software Description

Traveling Software Product_____

Version_____ Lot Number_____
Serial Number_____
Other Software Used_____

Hardware Description

Manufacturer_____ Model_____ Memory_____K

Peripherals_____

_____

_____

_____

_____

Describe the problem in enough detail to allow our technicians to reconstruct it. Include any diagnosis and suggestions you may have. Give error and line number. Attach a program listing if available. (Consult your computer manual for instructions on printing a program listing.)

Error Number_____ Line Number_____

For Traveling Software Use Only:

Technician_____

Date Received_____

Date Resolved_____

Action Taken:

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