TRS-80® VIDEOTEX PLUS User's Guide Tandy Model 2000

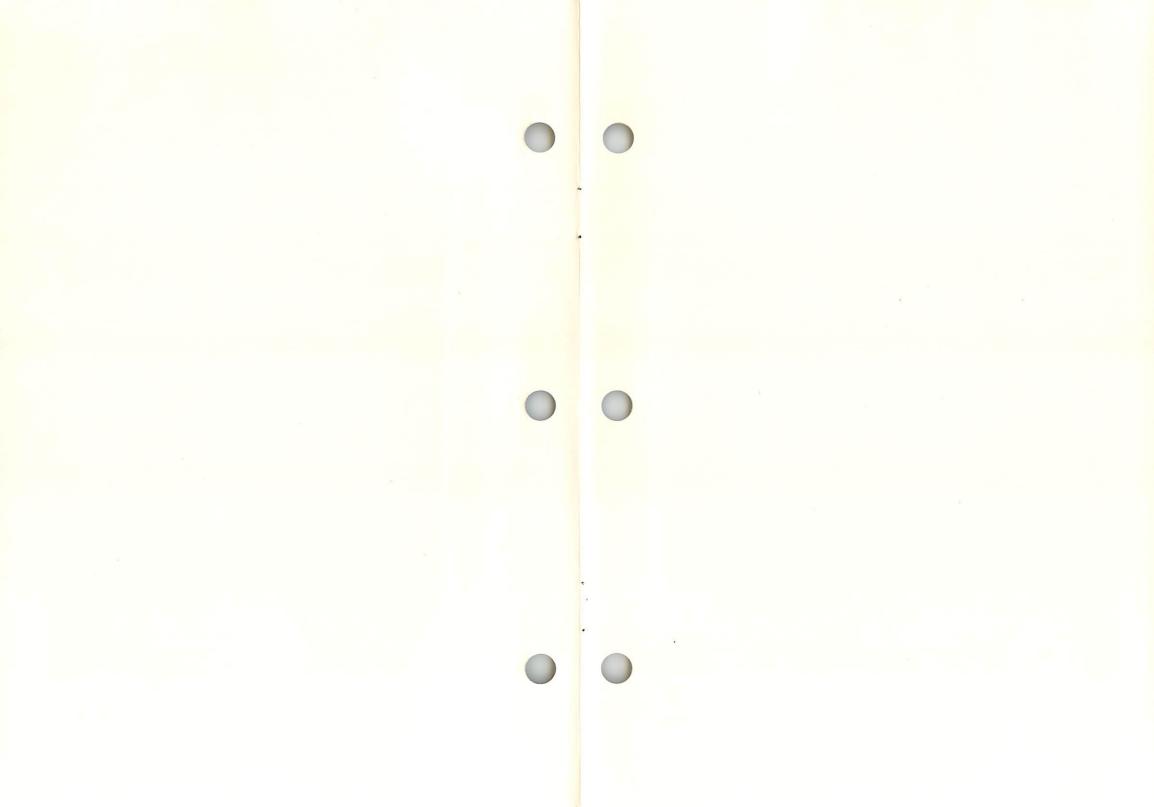
RADIO SHACK, A DIVISION OF TANDY CORPORATION

U.S.A.: FORT WORTH, TEXAS 76102 CANADA: BARRIE, ONTARIO L4M 4W5

TANDY CORPORATION

AUSTRALIA BELGIUM U. K.

91 KURRAJONG ROAD PARC INDUSTRIEL DE NANINNE BILSTON ROAD WEDNESBURY
MOUNT DRUITT, N.S.W. 2770 5140 NANINNE WEST MIDLANDS WS10 7JN



- 1. Turn on your Model 2000 and start up MS-DOS.
- 2. At the C> prompt, insert the diskette containing your backup files into Drive A.
- 3. Type:

BACKUP *.* A: \M (ENTER)

MS-DOS copies to the diskette all the files in the current directory that have been modified since the last backup. (See the MS-DOS Command Reference manual for an explanation of "current directory.")

Restoring Files to Hard Disk

If you keep a complete set of backup diskettes, restoring your hard disk system is straightforward. Simply follow these steps:

- 1. Turn on your Model 2000 and start up MS-DOS.
- 2. At the C > prompt, insert a backup disk into Drive A and type:

RESTORE A: C:\ /S (ENTER)

RESTORE copies all files from the diskette to Drive C. The RESTORE command works only with diskettes that have been created using the BACKUP command.

TERMS AND CONDITIONS OF SALE AND LICENSE OF RADIO SHACK AND TANDY COMPUTER EQUIPMENT AND SOFTWARE PURCHASED FROM A RADIO SHACK COMPANY-OWNED COMPUTER CENTER, RETAIL STORE OR FROM A RADIO SHACK FRANCHISEE OR DEALER AT ITS AUTHORIZED LOCATION

LIMITED WARRANTY

CUSTOMER ORLIGATIONS

- CUSTOMER assumes full responsibility that this computer hardware purchased (the "Equipment"), and any copies of software included with the Equipment or licensed separately (the "Software") meets the specifications, capacity, capabilities, versatility, and other requirements of CUSTOMER.
- CUSTOMER assumes full responsibility for the condition and effectiveness of the operating environment in which the Equipment and Software are to function, and for its installat

RADIO SHACK LIMITED WARRANTIES AND CONDITIONS OF SALE

- For a period of ninety (90) calendar days from the date of the Radio Shack sales document received upon purchase of the Equipment, RADIO SHACK warrants to the original CUSTOMER that the Equipment and the medium upon which the Software is stored is free from manufacturing defects. This warranty is only applicable to purchases of Radio Shack and Tandy Equipment by the original customer from Radio Shack company-owned computer centers, retail stores and from Radio Shack franchisees and dealers at its authorized location. The warranty is void if the Equipment's case or cabinet has been opened, or if the Equipment or Software has been subjected to improper or abnormal use. If a manufacturing defect is discovered during the stated warranty period, the defective Equipment must to improper or annormal use. If a manufacturing defect is discovered during the stated warranty period, the defective equipment must be returned to a Radio Shack rack Computer Center, a Radio Shack rack, participating Radio Shack fuse or Radio Shack rack dealer for repair, along with a copy of the sales document or lease agreement. The original CUSTOMER'S sole and exclusive remedy in the event of a defect is limited to the correction of the defect by repair, replacement, or return of the purchase price, at RADIO SHACK'S election and sole expense. RADIO SHACK has no obligation to replace or repair expendable items.
- RADIO SHAKOK makes no warranty as to the design, capability, capacity, or suitability for use of the Software, except as provided in this paragraph. Software is licensed on an "AS IS" basis, without warranty. The original CUSTOMER'S exclusive remedy, in the event of a Software manufacturing defect, is its repair or replacement within thirty (30) calendar days of the dot of the Radio Shack sales document received upon license of the Software. The defective Software shall be returned to a Radio Shack Computer Center, a Radio Shack for the Computer Center, a Radio Shack Computer Center
- Shack retail store, participating Radio Shack franchisee or Radio Shack dealer along with the sales document. Except as provided herein no employee, agent, franchisee, dealer or other person is authorized to give any warranties of any nature of behalf of RADIO SHACK.
- Except as provided herein. Radio Shack makes no express warranties, and any implied warranty of merchantability or fitness for a particular purpose is limited in its duration to the duration of the written limited warranties set forth berein
- Some states do not allow limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to CUSTOMER

- Except as provided herein. Radio Shack shall have no liability or responsibility to customer or any other person or entity with except as provided interfair, nadio shack shall have no liability for responsionity to customer or any other persons or entity respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by "Equipment" or "Software" sold, leased, licensed or furnished by Radio Shack, including, but not limited to, any interruption of service, loss of business or analicipatory profits or consequential damages resulting from the use or operation of the "Equipment" or "Software". In no event shall Radio Shack be liable for loss of profits, or any indirect, special, or consequential damages arising out of any breach of this warranty or in any manner arising out of or connected with the sale, lease, license, use or anticipated use of the "Software".
- Notwithstanding the above limitations and warranties. Radio Shack's liability hereunder for damages incurred by
- others shall not exceed the amount paid by customer for the particular "Equipment" or "Software" involved.

 RADIO SHACK shall not be liable for any damages caused by delay in delivering or furnishing Equipment and or Software.

 No action ansing out of any claimed breach of this Warranty or transactions under this Warranty may be brought more than two (2). years after the cause of action has accrued or more than four (4) years after the date of the Radio Shack sales document for the
- Equipment or Software, whichever first occurs Some states do not allow the limitation or exclusion of incidental or consequential damages, so the above limitation(s) or exclusion(s may not apply to CUSTOMER.

RADIO SHACK SOFTWARE LICENSE

- RADIO SHACK grants to CUSTOMER a non-exclusive; paid-up license to use the RADIO SHACK Software on one computer, subject to the
- tollowing provisions:

 A. Except as otherwise provided in this Software License, applicable copyright laws shall apply to the Software
- Title to the medium on which the Software is recorded (cassette and or diskette) or stored (ROM) is transferred to CUSTOMER, but not title to the Software.

 CUSTOMER may use Software on one host computer and access that Software through one or more terminals if the Software permits
- this function.

 CUSTOMER shall not use, make, manufacture, or reproduce copies of Software except for use on **one** computer and as is specifically
- provided in this Software License. Customer is expressly prohibited from disassembling the Software.

 CUSTOMER is permitted to make additional copies of the Software only for backup or archival purposes or if additional copies are
- required in the operation of one computer with the Software, but only to the extent the Software allows a backup copy to be made However, for TRSDOS Software, CUSTOMER is permitted to make a limited number of additional copies for CUSTOMER'S own use.
- CUSTOMER may resell or distribute unmodified copies of the Software provided CUSTOMER has purchased one copy of the Software for each one sold or distributed. The provisions of this Software License shall also be applicable to third parties receiving copies of the Software from CUSTOMER.

 All copyright notices shall be retained on all copies of the Software

APPLICABILITY OF WARRANTY

- The terms and conditions of this Warranty are applicable as between RADIO SHACK and CUSTOMER to either a sale of the Equipment and or Software License to CUSTOMER or to a transaction whereby RADIO SHACK sells or conveys such Equipment to a third party for
- lease to CUSTOMER.

 The limitations of liability and Warranty provisions herein shall inure to the benefit of RADIO SHACK, the author, owner and or licenso of the Software and any manufacturer of the Equipment sold by RADIO SHACK

The warranties granted herein give the original CUSTOMER specific legal rights, and the original CUSTOMER may have other rights which vary

	3. At the A > prompt, type:
	FORMAT (ENTER)
	FORMAT displays this message:
0 (Insert new diskette for drive A: and strike any key when ready
•	4. When the drive light goes out, remove the system diskette from Drive A and insert the blank diskette to be formatted (target diskette). (First, make sure the diskette's write-protect notch is not covered by a foil tab.) Press the Spacebar.
•	5. MS-DOS begins formatting the target diskette. It displays:
	Formatting tracks
	Each dash represents an area on the disk. As an area is formatted without error, the corresponding dash is replaced with a period (.). If an area contains a flaw, FORMAT replaces the dash with a question mark (?); FORMAT then locks out the flawed portions of that area so that MS-DOS never writes to them.
	6. When finished, FORMAT displays this message:
\bigcirc	Format complete
	nnnnnn bytes total disk space nnnnnn bytes in bad sectors nnnnnn bytes available on disk
	Format another (Y/N)?
	Press (Y). Format several other diskettes in the same manner. After doing so, press (N) at this same prompt. MS-DOS exits the FORMAT command and returns to the system prompt.
•	7. To return to hard disk control, type:
	C: (ENTER)
•	8. To copy all files from the hard disk to the diskette in Drive A, type: BACKUP C:\ A:/S (ENTER)
	Whenever the BACKUP command fills a diskette, it prompts you to insert another. Follow the prompts until BACKUP is finished.
	Backing Up Modified Files from Hard Disk
	Often you may want to copy only those files modified since the last backup. To do so, follow these steps:

You can skip this question by pressing **ENTER**. If you want to set the time, enter it in the 24-hour format, *hh:mm:ss.cc.* (*cc* represents hundredths of a second.) Include as much or as little of the time as you want.

For example, type:

14:30 (ENTER)

for 2:30 p.m

6. After you enter the time, MS-DOS displays its system prompt, C>, which indicates that your system is under hard disk control. (If the screen is blank or shows an error message, take action as instructed in the "Starting Up MS-DOS" procedure.)

Note: If the prompt is A>, the system is under floppy disk control. To operate under hard disk control, type:

C: (ENTER)

MS-DOS displays the \mathbb{C} > prompt.

7. At this prompt, type:

COPY A: *.* (ENTER)

8. After the files are copied, MS-DOS exits the COPY command and returns the C> prompt. You are now ready to run the application under hard disk control.

Backing Up All Files from Hard Disk

Loss of information stored on hard disk, although not likely, can be disastrous—simply because of the amount of information. Therefore, you should always keep and update floppy diskette copies of all hard disk information. Make copies immediately, then store them in a safe place.

To make copies, first use the FORMAT command to organize a blank diskette into a filing system in which you can put disk files. Then use the BACKUP command to copy all files from the hard disk to the formatted diskettes. Follow these steps.

- 1. Turn on your Model 2000 and start up MS-DOS.
- 2. At the C> prompt, insert a diskette containing MS-DOS into Drive A. Then switch to floppy disk control by typing:

A: (ENTER)







VIDTEX™ is a trademark of CompuServe Information Service, Inc.

Videotex Plus has been certified by the CompuServe Information Service to be **B** protocol compatible. **B** protocol is a videotex interface standard copyrighted by CompuServe.

TANDY Model 2000 Videotex Plus User's Guide

Copyright © 1983, Tandy Corporation All Rights Reserved.

Reproduction or use, without express written permission from Tandy Corporation, of any portion of this manual is prohibited. While reasonable efforts have been taken in the preparation of this manual to assure its accuracy, Tandy Corporation assumes no liability resulting from any errors or omissions in this manual, or from use of the information contained herein.

Appendix B/ Information for Hard Disk System Users



Transferring Your Application to Hard Disk

This procedure needs to be done only the first time you use an application. All subsequent times, follow the steps in "Starting Up MS-DOS."

Your hard disk must be formatted before you can use it. If it is not formatted, see instructions in your *Introduction to Model 2000* manual.

Once the hard disk is formatted, follow these instructions to transfer your application to hard disk.

Note: MS-DOS gives you the advantage of being able to put each application in a separate directory. After becoming familiar with MS-DOS, you may want to do this. If so, see the MKDIR, CHDIR, and PATH commands in the *MS-DOS Commands Reference* manual.

- 1. Turn on your Model 2000.
- 2. Insert your application program diskette into Drive A, the lower floppy disk drive. Be sure the diskette's read/write window (oval-shaped window) points into the drive and the diskette's label faces up. After fully inserting the diskette, turn the drive latch so that it blocks the drive opening.
- 3. Press the RESET switch.
- 4. MS-DOS loads into memory. Then the screen shows a startup/copyright message. The message ends with this prompt:

Enter new date:

Enter the current date in the mm-dd-yy format.

To specify the month (mm), use a 1- or 2-digit number from 1-12.

To specify the day (dd), use a 1- or 2-digit number from 1-31.

To specify the year (*yyyy*), use a 2-digit number from 80-99 (for 1980-1999) or a 4-digit number from 1980-2099.

For example, for June 14, 1984, type:

6-14-84 (ENTER)

5. The screen shows the time elapsed since you loaded MS-DOS and asks for the new time:

Current time is 0:00:11.59 Enter new time:

3. At the system prompt, type:

DISKCOPY A: B: (ENTER)

MS-DOS displays:

Insert source diskette in drive A:
Insert target diskette in drive B:
Strike any key when ready

When the drive light goes out, remove the system diskette from Drive A and insert the data diskette to be copied (your "source" data diskette). Insert a blank, formatted diskette in Drive B. (First, make sure the diskette's write-protect notch is not covered by a tab.) Press the Spacebar.

4. When DISKCOPY Is finished, it displays:

Copy complete

Copy another (Y/N)?

5. If you don't want to copy another diskette, press **N**. If you do, press **Y**; MS-DOS performs another copy in the same drives.

Contents

1/	Introduction	1 2 2 2
2/	System Start-Up Using the VIDTEX Program. Setting Terminal Functions Mode. How to Log On. Using a Printer with VIDTEX. Using the RAM Buffer with VIDTEX Exiting the Interactive Terminal Mode.	4 6 11 13 13
3/	Auto Log On Files Overview of Creating Auto Log On Files Powering-Up The System. Using the Auto Log On Editor. Creating an Auto Log On File Saving Auto Log On Files Printing an Auto Log On File Editing an Auto Log On File Using an Auto Log On File Automatic Log On Commands A Sample Log On File Naming Files Using the Directory Deleting an Auto Log On File	166 177 177 199 211 222 222 233 288 300 300 300
4/	Using the Model 2000 Keyboard with VIDTEX	
5/	Technical Information. Cursor Positioning. VIDTEX Escape Sequences Data Transmission Flow Control.	37 37 38 38
Ap	pendix A/Information for Floppy Diskette Users	39 40 40
А р	pendix B/Information for Hard Disk System Users Transferring Your Application to Hard Disk Backing Up All Files from Hard Disk Backing Up Modified Files from Hard Disk Restoring Files to Hard Disk	42 43 44

Press (N). MS-DOS exits the FORMAT command and returns to the system prompt.

5. To copy all files from your source diskette onto the target diskette, type:

DISKCOPY A: B: (ENTER)

MS-DOS displays:

Insert source diskette in drive A: Insert target diskette in drive B: Strike any key when ready

The disks are already in the drives. Press the spacebar to continue.

6. When DISKCOPY is finished, it displays this message:

Copy complete Copy another (Y/N)?

Press N. MS-DOS exits the DISKCOPY command and returns to the system prompt.





A data diskette is a formatted diskette that does not contain an operating system (MS-DOS) or any system files.

To create a data diskette, follow these steps:

- 1. Turn on your Model 2000.
- 2. Insert a system diskette in Drive A and start up MS-DOS.
- 3. Follow Steps 2 through 4 in the previous section. This time, however, do not use DISKCOPY to copy the source diskette to the formatted diskette.

With a diskette that contains MS-DOS in Drive A, you can now use your data diskette in Drive B.





Copying Data Diskettes

If something happens to a data diskette and you don't have a copy of it, you might spend hours re-entering information. To avoid this, copy your data diskettes periodically, following the steps below.

- 1. Turn on your Model 2000.
- 2. Insert a system diskette into Drive A and start up MS-DOS.

Appendix A/ Information for Floppy Diskette Users

Copying Program Diskettes

To protect information that you store on diskettes, copy all your diskettes. Make copies of your application diskettes immediately; then store the originals in a safe place and use them only for making copies.

To make copies, first use the **FORMAT** command to prepare a blank diskette for information storage. Then use the **DISKCOPY** command to copy all files from the program diskette to the newly formatted diskette. Follow these steps.

- 1. Turn on your Model 2000. Insert the diskette to be copied (source diskette) into Drive A and load MS-DOS.
- 2. Insert a blank diskette (target diskette) into Drive B (the upper drive). (First, make sure the diskette's write protect notch is not covered by a foil tab.) At the system prompt, type:

FORMAT B: (ENTER)

FORMAT displays this message:

Insert new diskette for drive B: and strike any key when ready

3. Press the spacebar. **FORMAT** begins formatting the target diskette. The screen shows:

Formatting tracks

Each dash represents an area on the disk. As an area is formatted without error, the corresponding dash is replaced with a period (.). If an area contains a flaw, FORMAT replaces the dash with a question mark (?); FORMAT then locks out the flawed portions of that area so that MS-DOS never writes to them.

4. When finished, FORMAT displays this message:

Format complete

nnnnnn bytes total disk space nnnnnn bytes in bad sectors nnnnnn bytes available on disk

Format another (Y/N)?

1/ Introduction

The Tandy *Model 2000 Videotex Plus* system is an easy to use, yet powerful and sophisticated communications package. Using this package, you will be able to communicate with a variety of information services and host computer systems. Videotex Plus has many features to assist in efficient and flexible information handling. **VIDTEX** consists of three modules which are:

Auto Log On Mode — Used to create, load, save, edit and execute auto log on files.

Set Terminal Functions Mode — A function which lets you set up communications parameters.

Terminal Mode — A mode used for interactive communications with a host computer, information service, or another terminal. (Upon power-up, the system will be in Terminal Mode.)

VIDTEX is a program for communication with information services and systems. This program lets your Tandy Model 2000 communicate with any computer information service (i.e., a host system) that has the same communications protocol as Videotex Plus. The Auto Log On Mode lets you create and edit log on sequences and save them on to a drive for use by the VIDTEX log on procedure.

VIDTEX is used to set your system up for a particular host and then perform the communications function. A special set of function keys allows you complete communications control and provides the flexibility necessary to utilize a variety of host systems.

A special feature of VIDTEX is that it lets you use the computer's memory (referred to as the RAM Buffer) for information retrieval. Received information can be saved, printed, or stored on diskette for later reference.

VIDTEX features an automatic log on function that saves time and effort when logging on to an information service. The "automatic log on" uses log on files you create containing the information to automatically dial and sign-on to the system. These automatic log on files are created using a special editor function in the Videotex Plus Auto Log On Menu.

In addition to the three modules that compose the basic structure of the package, Videotex Plus offers many features which will help you minimize connection time.

Other special features include:

- File capabilities that let you save information for later viewing, editing, or transmission.
- Function keys that you can define for special applications.
- Printer control for "hard-copy" output of received information.
- · Screen control for variable screen displays.

Required Equipment

This manual explains Model 2000 Videotex Plus software only and should be used with an information service user's guide. Your information service user's guide will tell you how to contact and use a particular network and service. To use this Videotex Plus package, you will need:

- Tandy Model 2000 Computer with at least 128K of RAM
- Either the VM-1 Tandy High Resolution Monitor (Catalog Number 26-5111), or the CM-1 High Resolution Color Display Monitor (26-5112). **Note:** Videotex Plus displays text in monochrome regardless of monitor selected.
- An acoustic coupler or modem such as the TRS-80 Telephone Interface II, Acoustic Coupler, Modem IB, Modem II, or DC-1200 High Speed Modem
- Telephone

Optional Equipment

- Although it's not required, you can use any Radio Shack Printer that is compatible with a Model 2000
- The TRS-80 PTC-64 Printer Controller (26-1269)

Using this Manual

It is recommended that you start at the beginning and work through the manual log on procedure if you are not already familiar with Videotex Plus. Practicing manual log ons should make it easier to create your Auto Log On files later.

There are two sample sessions given in this manual — one for a manual log on so that you can immediately use your software by following simple instructions; and, another sample session that shows you how to create, save, edit, and use an Auto Log On file with the Auto Log On Mode. The sample sessions will show you how to use the program and introduce you to some of the more advanced techniques that can enhance your communications.

The remainder of the manual will explain many of the operations that were introduced in the sample sessions.

VIDTEX Escape Sequences

VIDTEX lets the host computer perform screen control functions through escape sequences. Remember that these are remote functions executed by the host and cannot be performed from the keyboard. The following table summarizes the screen control sequences and the functions they perform. Note the difference between lower and uppercase.

Escape Control Sequence Summary				
Sequence	Function			
(ESC) (ESC) ()	Open RAM buffer			
ESC) ESC) C	Close Ram buffer			
(ESC) (ESC) Z	Zero RAM buffer			
(ESC) A	Cursor up			
(ESC) B	Cursor down			
(ESC) C	Cursor right			
ESC) D	Cursor left			
ESC H	Home cursor			
ESC) J	Clear to end of page			
ESC) K	Clear to end of line			
ESC Y line col	Position cursor			
ESC e	Disable display			
ESC f	Enable display			
ESC j	Clear Page			
DC1	XON			
DC2	Printer on			
DC3	XOFF			
(DC4)	Printer off			

Data Transmission Flow Control

VIDTEX recognizes the standard ASCII flow control characters, XOFF (Control-S) and XON (Control-Q). With XON/XOFF enabled, when VIDTEX receives an XOFF from the host, it will halt transmission. If an XON is not received, transmission will be resumed automatically.

VIDTEX expects the host to observe the same rules. There are several instances where an XOFF is sent to temporarily halt transmission from the host (RAM Buffer almost full, printer buffer full, menu selected). If the host does not respond to flow control, characters may be lost.

5/ Technical Information

Cursor Positioning

VIDTEX also supports remote cursor positioning sequences that allow the host to position text anywhere on the screen. Remember that this is a remote function executed by the host and cannot be performed from the keyboard. The character sequence for remote cursor positioning is:

ESC Y <Line code character> <Column code character>

where "line code" and "column code" are from the following table:

	Cu	ırsor F	osition	ing Se	quence	s	
Line Code					n Code		~*
Line	Char.	Col.	Char.	Col.	Char.	Col.	Char.
1	Space	1	Space	23	6	45	L
2	!	2	!	24	7	46	M
3	"	3	"	25	8	47	N
4	#	4	#	26	9	48	О
5	\$	5	\$	27	:	49	P
6	%	6	%	28	;	50	Q
7	&	7	&	29	<	51	R
8	,	8	,	30	=	52	S
9	(9	(31	>	53	Т
10)	10)	32	?	54	U
11	*	11	*	33	@	55	V
12	+	12	+	34	A	56	W
13	,	13	,	35	В	57	X
14	_	14	_	36	C	58	Y
15		15		37	D	59	Z
16	/	16	/	38	E	60	[
17	Ø	17	Ø	39	F	61	\
18	1	18	1	40	G	62]
19	2	19	2	41	Н	63	^
20	3	20	3	42	1	64	_
21	4	21	4	43	J		
22	5	22	5	44	K		

The Technical Information section contains information on the internal operations of Videotex Plus and detailed explanations of certain special functions and characters that can occur during the interaction between the host and Videotex Plus.

Another section is devoted to processing retrieved information with word processing software and spreadsheet applications. This procedure is particularly useful to edit extraneous characters that occur when RAM Buffer contents are saved.

Hints and Tips

- You may be inadvertently disconnected from the network if you have a "call-waiting" service and there is an incoming call signal.
- If an extension phone is picked up, you may receive data errors (normally, you will not be disconnected).







The screen shows:

DEFINE ALTERNATE FUNCTION KEY MODE ALT F1: F2: F3: F4: F5: F6: F6: F7: F8: F9: F10: F11: F12: PRESS FUNCTION KEY TO REDEFINE OR (ESC)

- To redefine a function key, press the key. If you select a key that already has a
 definition, the existing definition will be erased. You may then enter a new
 definition. The screen will then display that key with the cursor to the right of
 the key.
- Type the phrase or character you wish the function key to be (*up to 15 characters*) and press (ENTER). The new alternate function key definition will then be saved in a disk file but can be changed at any time.
- The Define Alternate Function Key Mode is displayed showing all current alternate function key definitions, including the one you just redefined. You can then redefine other function keys or press (ESC) to return to Terminal Mode.

Any alternate function key can be initated by pressing (ALT) and the function key.

Note: Most host computers do not recognize a command until **ENTER** is pressed. Therefore, most function key definitions should include **ENTER**. It is not advisable to define a function key for your password.

2/ System Start-Up

This section introduces the operation of Videotex Plus and will use a specific log on sequence to illustrate the operation of this program. See your acoustic coupler or modem operation manual, if necessary, before proceeding.

Using the VIDTEX program:

- 1. Turn on any peripheral equipment, such as a printer.
- Modem IB and Acoustic Coupler Users. The ORIG/OFF switch should be set at OFF.
- Modem II Users. If you are using the TRS-80 Modem II, the DTR Switch at the rear of the modem must be in the OFF position. The POWER switch should be ON. The MODE switches should be set at AUTO and ORIG.
- 2. Press the POWER switch on the main unit. The switch illuminates, indicating the power is on.
- 3. Make sure that the monitor is turned on.

IMPORTANT: Before using the Videotex Plus, make a backup copy. You should never use your original master diskette except to make working backup copies. Consult the Appendix at the back of this manual for Backup/Format instructions.

4. **Floppy Disk Users:** Insert your Videotex Plus diskette into Drive A, the lower floppy disk drive.

Be sure the diskette's read/write window (oval-shaped window) points into the drive and the diskette's label faces up. After fully inserting the diskette, turn the drive latch so that it blocks the drive opening.

Note: You must use the MS[™]-DOS shell when running Videotex Plus. The BREAK option must be ON in the configuration system file if you are not using the one provided with the Videotex Plus diskette.

- 5. Floppy Disk Users: Press the RESET switch.
- 6. MS-DOS loads into memory. This loading takes about five seconds. Then the screen shows a startup/copyright message. The message ends with this prompt:

Enter new date:

7. Enter the current date in the mm-dd-yy format.

To specify the month (mm), use a 1- or 2-digit number from 1-12.

To specify the day (dd), use a 1- or 2-digit number from 1-31.

To specify the year (*yyyy*), use a 2-digit number from 80-99 (for 1980-1999) or a 4-digit number from 1980-2099.

For example, for June 14, 1984, type:

6-14-84 (ENTER)

The screen shows the time elapsed since you loaded MS-DOS and asks for the new time:

Current time is 0:00.11.59 Enter new time:

You can skip this question by pressing **ENTER**). If you want to set the time, enter it in the 24-hour format, *hh:mm:ss.cc.* (*cc* represents hundredths of a second.) Include as much or as little of the time as you want.

For example, type:

14:30 (ENTER)

for 2:30 p.m.

8. After you enter the time, MS-DOS displays its system prompt, which is **A**> if you are operating under floppy disk control or **C**> if you are operating under hard disk control. Your Model 2000 is now under the control of MS-DOS and is ready for use.

If the screen is blank or shows an error message, instead of the startup message...

- The diskette may be in backwards. Remove the diskette even if the drive light is on and correctly insert it.
- Adjust the video controls that are on the front of the monitor.
- · Press RESET to reload MS-DOS.

If your screen is still blank, it may be because you're using a monitor other than the one in the normal configuration. To let the computer know your configuration is different, press (F12), and without releasing (F12), press RESET.

9. At the system prompt, type **VIDTEX** (ENTER).

F9 Open Disk

Use of both the **F9** and **F10** Keys is dependent upon your response to the Communications to Disk File function at the Terminal Functions Mode. At the Terminal Functions Mode, you should have entered an existing filename which you intend to receive. Entering the filename automatically enables the **F9** and **F10** keys. Upon pressing **F9**, the file you designated in Communications to Disk File will open and the received information will be channeled into that file. Press **F10** to close the file and stop transmission to that file.

F10

Close Disk

To terminate the transmission of a downloaded file, press **F10**. The transmission will stop and the system will return to Terminal Mode.

F11 Send Disk

This is used to upload a file from Terminal Mode. This function can save on connect time since it lets you load information into disk memory before you log on, then transmit it to a host (e.g., transmitting a message through electronic mail) after you have signed on. Press **F11** and the screen shows:

ENTER FILENAME

• Type a filename and press **ENTER**).

When **ENTER** is pressed, the system will immediately begin transmitting that file. The transmission stops after the entire contents of the file are sent. The system then returns to Terminal Mode.

Note: You can transmit and receive files from word processing and spreadsheet software programs provided the files are in ASCII form.

F12

Define Alternate Function Keys

All 12 function keys can be defined with alternate commands. To use redefined function keys, you press (ALT) and then the function key. These keys can be redefined as any arbitrary phrase you choose to assign to frequently used commands, providing the phrase does not exceed 15 characters. For example, you could store your CompuServe User ID by defining a function key.

To define a function key, press **F12**.

F2

Main Menu

Press **F2** to exit Terminal Mode and return to the Main Menu.

F3

Wordwrap Clean Enable

Press (F3) and words will no longer be split at the end of lines (e.g., "wrap-around" is prevented). This resumes the "word cleaning" characteristic of VIDTEX if you have previously selected the "Break Words" function.

F4

Wordwrap Clean Disable

Press **F4** to stop the "word cleaning" characteristic of VIDTEX. This function causes the words to be "split" as the text reaches the end of a line. This function is useful for saving tables or graphs into memory.

F5

Open RAM

VIDTEX lets you channel received information into the unused portion of your computer's memory. This memory area is called the RAM Buffer. This process is known as "data-capturing" because the received data is saved rather than discarded as soon as it is received. By using the available memory space, you can "capture" text from the host if you want to save it for future reference.

When VIDTEX is started, the computer's RAM Buffer will be empty and closed. To open the Buffer and save the information, press (F5). All subsequent received characters will be added to memory until it becomes full or until you press (F6) (Close RAM).

F6

Close RAM

Press **F6** to close memory (i.e. the RAM Buffer). Further transmission of data will not be saved in memory.

F7

Display Buffer Contents

Memory contents ("captured data" can be displayed by pressing **[7]**). After the entire RAM Buffer contents have been displayed, communications resumes.

F8

Save RAM

To save the RAM Buffer contents on disk, press (F8) and the screen shows:

ENTER FILENAME

• Type a filename and press **ENTER**). After the file is saved, Terminal Mode resumes.

10. The screen clears, a Videotex Plus message is displayed, and you are in Terminal Mode.

Note: You must have the ANSI Extended Keyboard/Video Driver in configuration. If not, you cannot use the function keys and unpredictable results may occur.

11. Press (BREAK) for the Main Menu. The screen shows:

TRS-80 MODEL 2000 VIDEOTEX PLUS COPYRIGHT 1983 TANDY CORP. ALL RIGHTS RESERVED VERSION 01.00.00

- 1. AUTO LOG ON MODE
- 2. SET TERMINAL FUNCTIONS MODE
- 3. ENTER TERMINAL MODE

CHOOSE 1-3 OR BREAK TO RETURN TO DOS

Setting Terminal Functions Mode

Before establishing communications, you need to configure the communications parameters to match those of the host you plan to contact. Aside from knowing the required log on sequence, you also need to know the communications parameters at which the host system operates. Otherwise, communications will be garbled. The program, **SET TERMINAL FUNCTIONS MODE**, lets you pre-configure these communications parameters to meet the requirements of the host. Consult your information service user's guide to determine which parameter settings are necessary for communications. Incidentally, the terminal functions are preset to be compatible with CompuServe and Dow Jones information services. Use these settings when you reach the section, **How to Log On**, where you are told how to log on to CompuServe.

To begin setting communications parameters, press 2 at the Main Menu for SET TERMINAL FUNCTIONS MODE.

The screen shows:

SET TERMINAL FUNCTIONS MODE
A. PARITY NONE
B. DUPLEX FULL
C. BAUD RATE 300
D. WORD SIZE 8 BIT
E. AUTO LINE FEED OFF
F. STOP BITS 1 BIT
G. XON/XOFF ENABLE ON
H. WORDWRAP CLEANUP ENABLE OFF
I. COMMUNICATIONS TO DISK FILE
J. UPLOAD FROM DISK FILE
K. COMMUNICATIONS TO PRINTER. OFF
L. PRINTER XON/OFF ENABLE ON
M. DEFINE ALTERNATE FUNCTION KEYS
N. ENTER TERMINAL MODE
CHOOSE A-N OR BREAK TO RETURN TO MAIN MENU

The following discusses all options of the SET TERMINAL FUNCTIONS MODE screen. After selecting any option other than ENTER TERMINAL MODE, the entire SET TERMINAL MODE screen will re-display, giving you the option to change another parameter setting. When you exit VIDTEX, the current functions are stored. Upon running VIDTEX again, these settings are used unless you change them again.

A. Parity

Upon power-up, the parity is set from a default file. Press (A) to list the options:

The screen shows:

TO SET PARITY (1) EVEN (2) ODD (3) NONE

- Press 1 for Even parity.
- Press 2 for Odd parity.
- Press 3 for No parity.
- Press **ENTER**) to keep the existing setting.



While running VIDTEX, whatever you type will in most cases be sent to the host system. Whatever information you receive from the host will usually (but not always) be displayed on your screen.

4/Using the Model 2000 Keyboard

In general, you can use the keyboard as usual. However, under VIDTEX some keys perform special operations such as turning the printer on or off. Others send special characters not normally available on the keyboard. These are Function Kevs. They are used to control the Videotex Plus program and are not transmitted. This section will describe how VIDTEX uses the keyboard.

Repeating Keys

with VIDTEX

During the operation of VIDTEX, key entries will repeat when you hold keys down. For example, if you wish to enter a line of dashes, simply hold down the kev.

Special Videotex Plus Key Functions

The Function Kevs are used to control VIDTEX advanced features. To execute Function Key, simply press the key corresponding to the function you want. While in VIDTEX, press (F1) for the HELP screen. This will produce a display simliar to the following:

F i	HELP
F2	MAIN MENU
F3	WORDWRAP CLEAN ENABLE
F4	WORDWRAP CLEAN DISABLE
F5	OPEN RAM
F6	CLOSE RAM
F7	DISPLAY RAM
F8	SAVE RAM
F9	OPEN DISK
F1Ø	CLOSE DISK
F11	SEND DISK
F12	DEFINE ALTERNATE
	FUNCTION KEY MODE

B. Duplex

Upon power-up, the duplex is set at the default option. Press **B** to change the Duplex setting.

The screen shows:

- TO CHANGE DUPLEX MODE (1) FULL (2) HALF
- Press 1 to change the duplex setting to Full.
- Press 2 to change the duplex setting to Half.
- Press **ENTER** to keep the existing setting.

C. Baud Rate

Upon power-up, the Baud Rate is set at the default setting (300). To change the baud rate setting, press **C**.

The screen shows:

TO CHANGE BAUD RATE (BITS PER SECOND)

- (2) 150 (1) 110 (4) 600 (5) 1200
- (3) 300 (6) 2400

- (7) 4800
- (8) 9600
- Press the appropriate number for the Baud Rate, or press **ENTER** to keep the existing setting.

D. Word Size

Upon power-up, the Word Size is set at the default setting (8). To change the setting, press **D**.

The screen shows:

TO CHANGE WORD SIZE (7) SEVEN BITS (8) EIGHT BITS

• Press **7** for seven bit word length, or press **8** for eight bit word length. Press **ENTER** to keep the existing setting.

E. Auto Line Feed

The default Auto Line Feed setting is OFF. Press **E** to change the Auto Line Feed setting.

The screen shows:



TO CHANGE AUTO LINE FEED (1) ON (2) OFF

• Press 1 for auto line feed, or press 2 for no auto line feed. Press ENTER to keep the existing setting.

F. Stop Bits

The default Stop Bit setting is 1. Press **F** to change the Stop Bit number.

The screen shows:

TO CHANGE THE STOP BITS (1) 1 STOP BIT (2) 2 STOP BITS

- Press 1 for 1 Stop Bit, or press 2 for 2 Stop Bits.
- Press **ENTER** to keep the existing setting.

G. XON/XOFF ENABLE

The default XON/XOFF setting is ON. To change the XON/XOFF setting press (3).

The screen shows:

TO CHANGE XON/OFF MODE (1) ON (2) OFF

• Press 1 to turn on the computer's XON/XOFF. Press 2 to turn off the computer's XON/XOFF. Press ENTER to keep the existing setting.

Note: Some networks and host systems (such as TELENET) do not use XON/XOFF. However, they may use the control characters for other purposes. When using these networks or services, you must turn off the XON/XOFF option.

H. Wordwrap Clean Enable

The default setting is ON. To change the Wordwrap Clean Enable, press ①.

The screen shows:

TO CHANGE WORDWRAP CLEANUP
(1) ENABLE (2) DISABLE

• Press 1 to turn the Wordwrap Clean Enable on. Press 2 to turn the Wordwrap Clean Enable OFF, or press ENTER to keep the existing setting.

I. Communications to Disk File

Activating this function lets you create a file into which you can later save received information from Terminal Mode using the Function Keys **F9** "Open Disk" and **F10** "Close Disk." You specify a filename using this function to be able to capture the received data later. Press **1** for Communications to Disk File.

The screen shows:

ENTER FILENAME

Naming Files

You have virtually unlimited capabilities when naming files. Generally, you need to direct the auto log on file to the proper directory. In this case, you will probably want to direct the auto log on to that Root directory containing VIDTEX. Then, insert the Drive initial followed by a colon. Insert a backslash and then type the directory name which is contained within the Root directory. Insert a backslash and then the filename. Note the following example:

VIDTEX a:\AUTOLOG\CMPUSRV

VIDTEX is the Root directory which is on Drive A. AUTOLOG is the directory within that Root directory. CMPUSRV is the name of an auto log on file.

Using the Directory

Keep in mind that to load a file contained within a Root directory, you must always call up that Root directory. Then, press **ENTER** to view the directories within the Root directory. Keep records of which files are contained within Root directories and sub-directories.

• To list the files currently on a disk, at DOS, type the Root directory filename and **ENTER**). Then, press **ENTER**) to view the first sub-directory, and so on.

Refer to Chapter 1, Section I of the MS-DOS Commands Reference Manual for detailed information on naming files and using the directory.

Deleting an Auto Log On File

• To delete a file from a disk, at DOS Ready, type **DEL filename** (Where **filename** is the name of the file you wish to delete.) Do not **DELETE VIDTEX**.

The Wait (Wx) command is used to pause for two seconds before we try to transmit anything.

The rest of the session simply duplicates the dialog that would normally be done from keyboard.

Line 2

The Hex Byte command is used to transmit a Control-C (Hexadecimal 03) to the IIS system.

Line 3

The RC command is specified here to look for the message and determine when to send the Terminal Code. As soon as the message is received, the log on will proceed to the next step.

Line 4

The TR command is used to transmit the "*A" terminal code and a CR (carriage return). This duplicates the action of typing *A ENTER on the keyboard.

Line 5

The RC function is used to look for the Account Code prompt.

Line 6

The TR function is used to transmit the account code followed by a Carriage Return.

Line 7

The RC command is used to look for the Password prompt.

Line 8

The KI (Keyboard Input) function is used if the password is not automatically transmitted or stored in the auto log on file. When this step is reached, the auto log on prompt "TYPE PASSWORD <ENTER>" will be displayed. You will then type the password on the keyboard and press the **ENTER** key. **ENTER** is used to send a carriage return and exit the KI function. Refer to the section of this manual, "Automatic Log On Commands" for other ways to terminate the KI function.

Line 9

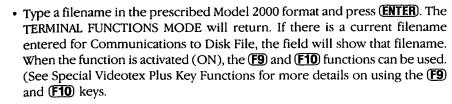
The RC command is used to look for the COMMAND: prompt from IIS. All other information that is received will be displayed but will be ignored by the log on process until the specified prompt is received.

Line 10

The TR command is used to send the FIND MYDATA request (followed by a carriage return) to the IIS service.

Line 11

The END command is used to mark the end of the automatic log on session. When the END is reached, the process is turned over to manual control from the keyboard.



Note: This function will send XON/XOFF if used with large files.

I. Upload from Disk File

When activated, this function lets you upload a file and transmit it using the current Terminal Mode settings. You will be sending the file immediately. Press and the screen shows:

ENTER FILENAME

• Type the filename in the prescribed Model 2000 format and press **ENT5B**.

The file will immediately transmit after loading. After the file has been transmitted, the system will be in Terminal Mode. Press **BREAK** to return to the Main Menu.







K. Communications to Printer

This function temporarily stores data in a RAM Buffer so that communications are not slowed down when using a slow printer. The Model 2000 Videotex Plus package has a built-in printer spooler which can prevent the loss of serial input data. This function should be used in conjunction with the Printer XON/XOFF command.

The screen shows:

TO CHANGE COMMUNICATIONS TO PRINTER (1) ON (2) OFF

• Press 1 to turn the internal spooler On, or press 2 to turn the spooler Off. Press ENTER to keep the current setting.

L. Printer XON/XOFF ENABLE

Sometimes a disparity between the host's baud rate and that of the printer can result in lost data. For example, if you are communicating at 1200 baud, but have a printer with a maximum baud rate of 300, some data may be lost in transmission to the printer. When activated with a compatible host, this function tells the host to temporarily halt data transmission by sending an XOFF until the transmitted data has been printed. At that point, an XON will be sent telling the host to proceed with data transmission. If this function is disabled and the printer buffer overflows, a large block of print data will be lost. This problem also occurs if the host ignores XOFF.

How to Log On

Proceed with the following section if you have a Modem II or other auto dialing modem. If you have a non-dialing modem or acoustic coupler, proceed to the section entitled, For Non-Dialing Modem Users.

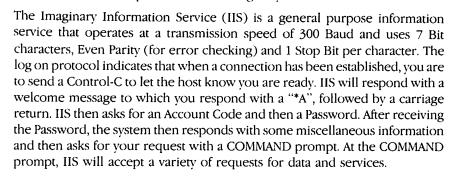
For Auto Dialing Modem Users

This example uses the TRS-80 Modem II to contact the CompuServe Information Service. For this example, you must be in TERMINAL MODE.

- 1. Use one of the following methods to enter Terminal Mode:
 - a. Upon power-up, you are automatically in Terminal Mode.
 - b. At the Main Menu, you can press 3.
 - c. From the TERMINAL FUNCTIONS MODE, you can press **N**.

A Sample Log On File

To illustrate the use of a variety of log on commands, the following sample log on session will be explained for the Imaginary Information Service.



Let's say you wish to create an auto dial log on file for use with your Modem II. With this file, you want to dial the IIS system, log on with a tone phone, and perform a request that you use frequently. The file would look something like this:

```
"S"37E1""T1P-800-555-1212"""W"2
"TR"H\03\
"RC"Welcome to IIS - Terminal Code?
"TR"*A\CR\
"RC"Account Code:
"TR"AC0003\CR\
"RC"Password:
"KI"TYPE PASSWORD <ENTER>
"RC"COMMAND:
"TR"FIND MYDATA\CR\
"END"
```

Let's examine this file line-by-line to see what occurs during the log on:

Line 1

This line contains all of the commands required to set the communications parameters and to dial and establish a connection with the IIS system. (See the SETCOM Code Chart Table 4).

Dialing sequences enclosed in — characters are automatically sent to the modem in 8 bit, no parity, 1 stop bit configuration regardless of the current setting. This is done to support certain Radio Shack modems that require this configuration to dial. After the number is dialed, it automatically sends the dialing commands and a Wait for No Carrier (WN) and then a Wait for Carrier (WC). If you are using a non-Radio Shack modem, you may need to use the TR command followed by the sequence specified in your modem owner's manual.

For example, the setting "S"38N1 means to set the Baud to 300 (where 3 is the code for 300 Baud), and to set the UART at 8 bit words, no parity, and 1 stop bit.

(ESC)

After all elements of the log on file have been entered, press **ESC** to return to the Auto Log On Mode where you can name and save the file for future use.

- 2. Press (SHIFT) (•
- 3. Then, depending on the type of telephone you have, type the CompuServe telephone number you received with the package in one of the following formats:



If you have a Touchtone telephone, type: **DT***number***X** or

If you have a Rotary dial telephone, type: DRnumberX

Note: Consult your Modem owner's manual for other dialing instructions.

The phone number is then dialed. The first three lights on the Modem II (ON, OH, and TR) will illuminate.

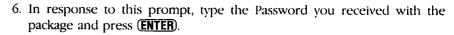
At this point, the connection to CompuServe is complete.

4. Press **CTRL C** and the ^C appears on the screen. The following prompt appears:

User ID:

5. In response to this prompt, type the User ID you received with the package and press (ENTER). The following prompt appears:

Password:



Note: To retain the secrecy of your Password, it will not appear on the screen when you type it.

At this point, you are logged on and may begin using the CompuServe Information Service.

For Non-Dialing Modem Users

- 1. Pick up your phone and dial the CompuServe telephone number included in the package.
- 2. When the phone has been answered, you will hear a high-pitched tone.
 - If you have a Modem I, set it to ORIG. When the tone changes to a lower tone, hang up the phone.
 - If you have a DC-1200 High Speed Modem, press the ORG button.
 Release it when the OH indicator illuminates, then, gently hang up the telephone.
 - If you have an Acoustic Coupler, set it to ORIG. When the phone is answered, wait for the tone, then firmly insert the telephone into the rubber couplers.

3. Press CTRL C and the ^C character appears on the screen. The following prompt appears:

User ID:

4. In response to this prompt, type the User ID you received with the package and press (ENTER). The following prompt appears:

Password:

5. In response to this prompt, type the Password you received with the package and press **ENTER**).

Note: To retain the secrecy of your Password, it will not appear on the screen when you type it.

At this point, you are logged on and may begin using the CompuServe Information Service.

Note: To use other information services and host systems, simply substitute the appropriate dialog as provided in the information service user's guide.

Using a Printer with VIDTEX

Now CompuServe should be up and running. One of the features of Videotex Plus is the ability to use a printer to print screen or RAM Buffer contents. Videotex Plus uses the conventional Model 2000 printout commands. Always make sure your printer is On Line.

• To print out the current screen contents, type **SHIFT PRINT**.

Consult the section of this manual, Setting Terminal Functions Mode, for instructions on using the internal printer spooler.

Using the RAM Buffer with VIDTEX

Videotex Plus lets you store information in memory for use or printing at a later time. While in VIDTEX Interactive Terminal Mode, you can "open" the RAM Buffer and selectively store information in the Buffer. The RAM Buffer can accommodate 16K of storage.

- 1. To open the RAM Buffer, press **F5**. From this point on, the information appearing on the screen will be saved in memory.
- 2. To close the RAM Buffer, press (F6). The information received from this point will not be stored in the Buffer until you reopen it.

The "KI" command will temporarily stop the automatic process and allow you to enter the desired information. When you have entered your response, either press the **ENTER** key to send a carriage return to terminate the "KI" command and resume the automatic process, or press **BREAK** to terminate the Keyboard Input command and resume the automatic process.

For example, to be prompted for the Password, you would enter:

RC Password: ENTER

The screen will show:

"RC"Password:

~KI~

Note: You must press the **ENTER** or **BREAK** key immediately after typing the manual response. This is to allow the automatic process to resume before the host system responds.

"S" XXXX

SETCOM — Set the Baud Rate and UART

 \circ S \circ XXXX

This command lets you set the Baud Rate and UART to match the host with which you are communicating. The first entry is reserved for the Baud Rate Code (see Baud Rate Code Table). The second entry is reserved for the Word Size. The third is reserved for the Parity. The fourth is reserved for the Stop Bits number. (Refer to the following SETCOM chart.) You must enter all four parameters. The codes must be preceded by the "S".

	SETCOM Code	Chart	
Baud Rate	Word Size	Parity	Stop Bits
96 for 9600	8	N	1
48 for 4800	7	E	2
24 for 2400		Ο	
12 for 1200			
6 for 600			
3 for 300			
15 for 150			
11 for 110			

Table 4.

$\mathbf{\tilde{w}}$

Wait for Carrier



This command delays the log on process until a "carrier" (data transmission tone) is detected. After dialing is completed, there will be a brief wait before the carrier is established. (The line could also be busy or dead.) In your auto log on, "WC" is used to specify that you want the process to wait until the host's carrier signal is established before continuing with the next command. In some sequences, this is required to prevent the automatic log on from proceeding without communications being established.

WN

Wait for No carrier



This command is used to pause the log on sequence until there is a "no carrier" condition (carrier lost). The "WN" command is used with certain automatic dialing modems such as the Radio Shack Modem II. The use of the WN command is demonstrated in the section describing the use of the Modem II later in this manual. Be careful when using this command. If you have already made a connection to the host before entering the log on procedure, a "WN" will prevent the log on from continuing.

\mathbf{w} x

Pause 1-9 seconds

_ W _ 2

This command stops the log on process for 1 to 9 seconds. The example indicates a 2 second pause. It is useful in giving the host system time to process a request before proceeding to the next step or waiting for hardware status to change.

"END"

End of File

() END ()

This command must be entered at the end of each log on file.

KI text

Keyboard Input

KI [Optional Keyboard Prompt]

This command is used to allow manual entry of information during an automatic log on process. You might wish to use this feature if you do not want your secret password included in the sequence. "KI" is normally used after receiving a host request for information such as a Password. This prompt displays "text".

- 3. To display RAM Buffer contents, press **F7**. After the RAM Buffer contents have been entirely displayed, on your screen, communications resumes.
- 4. To save RAM Buffer contents, press (F8). You will be prompted to enter a filename. Type the filename and press (ENTER). Communications resumes after the file is saved.

For more detailed information on using the RAM Buffer to retrieve data, see Special Videotex Plus Key Functions later in this manual.

Exiting the Interactive Terminal Mode

- 1. To exit VIDTEX type (BREAK) to return to the Main Menu. Then, type (BREAK) to return to DOS. Never remove the Videotex Plus program diskette until you are at DOS.
- 2. Turn your Modem OFF.



		TR [*] Transmit
		TR text
_	_	This command is used to transmit information to the host system.
		Example:
		TR 10000,100
,		The screen will show: "TR"10000,100
		\CR\ Carriage Return
•	,	
		In the auto log on function, CR can be classified as a sub-command only in the TR and RC fields to specify that a Carriage Return (ASCII code 13) is to be sent to the host (on a TRansmit line), to verify the receipt of a carriage return (on a Receive and verify line). It is not used to terminate a command line. It represents the carriage return character.
		Example:
		TR HELLO CR C
		The screen will show: "TR"HELLO\CR\
		H\##\ Insert a Hexadecimal Byte
		н 🕔 ## 🕔
		This sub-command is used only in the TR and RC fields to enter one or two two-character ASCII representations of hexadecimal values not available on the keyboard. This function can be used in the TRansmit, Receive, and Prompt Operator modes. After the left bracket, type the ASCII codes for the appropriate hexadecimal values and enter the right bracket.
		For example, to send a Control-C (ASCII code 03) you would type the following as part of the text on a TRansmit line:
	1	н 🕥 03 🕥
		The screen will show:
		H/03/
		Note: The previous command can also be entered as H\3\.

There are three methods of logging on with Auto Log On files — each is fast and efficient:

- a. Enter VIDTEX from DOS. (If you have a Hard Disk, remember that you must be at the directory containing VIDTEX to load the program.) At Terminal Mode, press (BREAK) for the Main Menu.
- Press 1 for Auto Log On Mode. Press 1 for Load Auto Log On File.
- Type the Auto Log On filename and press (ENTER).
- Press 4 for Execute Auto Log On.
- b. At DDS, type VIDTEX, the drive initial, a backslash, the directory containing auto log on files, a backslash, the auto log on filename, and (ENTER). The system will automatically start VIDTEX and execute the indicated Auto Log On file.
- c. You can create an auto execute batch file for VIDTEX. When the DOS is booted, the **AUTOEXEC.BAT** will be executed. Refer to your MS-DOS Command Reference Manual for details on creating batch files.

Automatic Log On Commands

This section outlines the commands used when creating an auto log on file. You have already used the majority of these commands in the Sample Session. Most commands are entered using a special key sequence. Each command (TR, RC, etc.) is enclosed in "'s. The Carriage Return and Insert HEX byte commands can be classified as sub-commands. These commands require that you use the backslash mark \. When the command is entered, it will appear on the screen as the command abbreviation. The following explanation begins with the most commonly used commands and ends with those that are not always required.

TRCT

Receive and Verify

RC text

This command is used to look for a specific request or message from the host system. When the "RC" command is used, the log on process will wait for the specified key words to be received before continuing.

For example, if the host system requests you to enter an identification code using a specific prompt, you would enter the "RC" command followed by the text of the prompt.

Example:

~ RC ~ User ID:

The screen will show: "RC"User ID:

3/ Auto Log On Files

One of the most useful features of Model 2000 Videotex Plus is that it lets you save automatic log on files on diskette. There are two types of auto log on files.

- **Auto Dial Log On** files which contain the host's telephone number and can only be used with a Modem II or modems designed for automatic dialing.
- **Auto Log On** files which contain all log on protocol without the host's telephone number. Using an Acoustic Coupler or Modem IB requires that the telephone number be dialed manually.

The directions in this sample session will help you become comfortable with creating, saving, and loading auto log on files. There are certain syntax rules, like the rules of grammar, which have to be followed to successfully create Auto Log On Files. These rules are primarily in the form of Key Commands which are translated by Videotex Plus to contact the host.

At first some of the key commands may seem tedious, but it will not take long for you to become familiar with them. The example given is an Auto Dial Log On for the CompuServe Information Service. This service was chosen because you should already be familiar with it and it is similar to communication protocols used by other information services. So, making the transition from one information network's protocol to the next will not be that difficult.

Overview of Creating Auto Log On Files

Creating and editing of auto log on files is done in the AUTO LOG ON MODE of this package. While in the Auto Log On Mode, you can save new log ons, load existing log ons for editing, print log ons, and end the program.

Creating auto log on files consists primarily of your Auto Log On anticipating the responses and transmissions that occur during a host-to-terminal communication. Your log on should include the prompts, or what is requested from the host. Then, for each of these prompts, you transmit your response. This pattern continues until your final prompt response has been transmitted. At that time, your log on will be complete.

These are the steps you will go through when creating an Auto Log On file:

- 1. Power-Up the system and enter VIDTEX.
- 2. Press (BREAK) for the Main Menu.
- 3. At the Main Menu, press 1 for the **Auto Log On Mode**.
- 4. Press **3** for **EDIT AUTO LOG ON**.



- 5. Enter the protocol using the commands described in this program.
- 6. Save the Log On file using a unique filename.
- 7. Execute the Auto Log On File or exit the Auto Log On Mode.

Powering-Up the System

Insert the backup copy of Videotex Plus into Drive A of your Model 2000 Computer.

- 1. Press the RESET button.
- 2. Type the date in the format MM/DD/YYYY and press (ENTER). Type the time in the format HH:MM:SS and press (ENTER), or just press (ENTER).
- 3. At the prompt (x>), type **VIDTEX ENTER**.
- 4. The screen shows:

TRS-80 MODEL 2000 VIDEOTEX PLUS COPYRIGHT 1983 TANDY CORP, ALL RIGHTS RESERVED VERSION 01.00.00

- 5. Press (BREAK) to exit Terminal Mode and go to the Main Menu.
- 6. Press (BREAK) and the screen displays the Main Menu.

TRS-80 MODEL 2000 VIDEOTEX PLUS COPYRIGHT 1983 TANDY CORP. ALL RIGHTS RESERVED VERSION 01.00.00

- 1. AUTO LOG ON MODE
- 2. SET TERMINAL FUNCTIONS MODE
- 3. ENTER TERMINAL MODE

CHOOSE 1-3 OR BREAK TO RETURN TO DOS

Using the Auto Log On Editor

Press 1 on the Main Menu for the Auto Log On Mode.

The screen shows:

AUTO LOG ON MODE

- li, LOAD AUTO LOG ON FILE
- 2. SAVE AUTO LOG ON FILE
- 3, EDIT AUTO LOG ON FILE
- 4. EXECUTE AUTO LOG ON

Printing an Auto Log On File

If you have a printer, you can print a copy of the Log On file you just created. The brackets may appear on the printout as characters (arrow keys, for example) other than those appearing on the screen.

To print a copy of the Log On file currently in memory:

- 1. Make sure the printer is properly connected to the Model 2000 and is ready to print.
- 2. Press **SHIFT (PRINT)** while in Edit Mode with the file on the screen and the Log On file currently in memory will be printed.

Editing an Auto Log On File

To edit an Auto Log On File, you first need to load the file into memory using the LOAD function.

1. To load an Auto Log On File for editing, at the Auto Log On Mode, press 1 for Load File. The screen shows:

ENTER FILENAME

- 2. Type an existing filename and press **ENTER**.
- 3. You have just loaded the file into your computer's memory. To edit this file, press 3 for EDIT LOG ON FILE. The file will appear as you entered it earlier.

To change items in the file, use the key functions listed in Tables 1, 2, and 3.

Press (ESC) when you are finished editing the file. To retain these changes in the file, you must Save the file again. You may rename the file at this point. If so, the previous name and unedited file will remain on the disk.

Using an Auto Log On File

Videotex Plus is designed to let you save many Auto Log On files on diskette. If you have one disk drive, your only limitation is the amount of space on one disk. If you run out of space on your program diskette, make a backup of it and delete all Auto Log On files from the backup. This lets you have several program diskettes that contain different log on files. If you have more than one disk drive, you can make data diskettes and save files to the appropriate drive. Be sure to note which diskettes contain which Auto Log On files.

the phone number easier to read but which will not affect the dialing. For example, if you had to read the number 918005551212, it is certainly easier to read with punctuation, 9-1-800-555-1212.

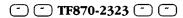
	Auto Dial Syntax Summary For Auto Dialing Modems
Т	Tone Dialing
R	Rotary Dialing
F	Fast at 20 pulses per second
S	Slow at 10 pulses per second (default value)
P	Pause during dialing
(,),-	Optional punctuation used to separate elements of phone number such as area code, or prefix

Table 3.

The first line of an auto dial file for a fast tone dialing will be similar to the following:

~~TF870-2323~~

To enter this information, at the Edit Auto Log On screen, type:



Press **ENTER** to move to the next line.

If you are using a different automatic dialing modem, refer to the dialing instructions for that modem and modify the first line to correspond to your modem's dialing instructions.

Saving Auto Log On Files

Your next step is to save the file you just created.

1. At the Auto Log On Menu, press 2 for SAVE AUTO LOG ON FILE.

The screen shows:

ENTER FILENAME

- 2. You are being asked to enter a unique filespec (filename) for the file you just created. (For detailed instructions, see Naming Files later in the manual.) For this example, type **COMPUSRV.ALO** and press **ENTER**).
- 3. When the file has been saved successfully onto the diskette, the AUTO LOG ON MODE menu appears.

CHOOSE 1-4 OR BREAK FOR MAIN MENU

LOAD AUTO LOG ON FILE lets you load an existing file into the RAM Buffer for editing or execution.

SAVE AUTO LOG ON FILE lets you save a new file or an edited file for future use.

EDIT AUTO LOG ON FILE lets you edit existing files or create new files stored in the RAM Buffer.

EXECUTE AUTO LOG ON starts Auto Log On from the RAM Buffer.

Press 3 for EDIT AUTO LOG ON function. The screen will clear except for the Cursor in the upper-left corner of the Screen.

At the EDIT Screen, you will be entering the necessary components to establish communications with a host system. Your settings must match those of the host. You must also conform to the upper/lowercase requirements of the host system.

In this Sample Session, all of the commands are given step-by-step. If, when following this lesson, you accidentally make a mistake, refer to the following VIDTEX Editing Functions table which shows all of the key editing functions of the EDIT.

EDIT Functions				
Function	Result			
Œ	Move up 1 line			
CAPS	Upper/Lowercase toggle switch			
●	Non-destructive Backspace			
BACKSPACE	Destructive Backspace			
(INSERT)	Insert characters			
DELETE	Deletes character under cursor			
SPACEBAR	Move right 1 character (destructive)			
(T)	Advances Cursor to next line			
ESC	Return to Menu			
HOME	Home Cursor (extreme upper left)			
→	Advance right 1 character			
	(non-destructive)			

Table 1.

After you create several log on files, you will probably remember most of the functions.



The syntax commands you use to create Auto Log On files are shown in the following chart. Refer to this chart any time you need a review of the syntax commands. Keep in mind that T, R, F, S, P, and optional punctuation apply only to those using automatic dialing modems.

	Syntax Command Summary
~TR~	START TRANSMIT BLOCK
~RC~	START RECEIVE BLOCK
~KI~	STOP AND WAIT FOR KEYBOARD INPUT
~WC~	WAIT FOR CARRIER DETECT
~WN~	WAIT FOR LOST CARRIER DETECT
~W~x	Wait 1 to 9 SECONDS
~S~XXXX	SET Baud Rate, Word Size, Parity, Stop Bits
~END~	END OF AUTO LOG ON PROCEDURE
~XXX~	AUTO DIAL MODEM DATA
	Transmit/Receive Functions
H\###\	HEX BYTE
\CR\	CARRIAGE RETURN

Table 2.

Creating an Auto Log On File

If you have a non-dialing modem, use the following instructions to create an Auto Log On file. The following example is a hypothetical CompuServe log on. Use the CompuServe log on information provided with the package to create an actual log on. If you make a mistake while following the detailed instructions, refer to Table 1 for the editing functions.

This is what a CompuServe Information Service log on would look like (the user ID, and password are imaginary). Substitute the user ID and password included with the CompuServe packet.

~WC~~W~2 ~TR~H\Ø3\ ~RC~User ID: ~TR~73357,524\CR\ ~RC~Password: ~TR~SECRET\CR\ ~END~

Follow the steps below to create a similar file.

1. At this point, you should be at the EDIT function of the Auto Log On Mode. If you are not, press 3 at the Auto Log On Mode

20

- 2. The cursor should be at the upper left corner of the Screen. If it is not, press (HOME) to move the Cursor to that position. Do not press (ENTER) until instructed.
- 3. To enter the first line of the example, type:

- WC - 2

and press **ENTER** to move to the next line.

This line waits for Carrier Detect then pauses 2 seconds before starting.

- 4. To enter the second line which transmits a Hex Byte 03, type:
- TR H 03 (ENTER)
- 5. the third line tells the modem to wait for the response from the host. In this case, the response is a request for User ID. To enter the third line, type:
- RC User ID: ENTER.
 - 6. The fourth line transmits your response to the previous User ID: request. To enter the fourth line, type:
- TR 73333,221 CR (\) (ENTER).
- 7. The next anticipated request from the host will be your Password. The fifth line says to wait until the Password request is received. Type:
- RC Password: ENTER.
- 8. The next line of the log on will be your response to the previous request for the Password. To transmit your Password, type:
- TR SECRET
 CR (SENTER)
- 9. It is mandatory that you indicate that the procedure is complete when creating any Auto Log On file. This is done with the Auto Log On "END" command. To enter the final END command for any Auto Log On file, type:
- END E
- 10. Press BREAK to return to the Auto Log On Menu.

Auto Dialing

If you have a Modem II, you can make an auto dial log on file by adding the dialing sequence to auto log on. You can specify whether you want Fast or Slow Tone or Rotary dialing. If you do not specify the dialing type, the number is dialed at the default value, Slow Rotary (10 pulses per second). As noted in Table 3. Auto Dial Syntax Summary, you can insert characters which will make