

HP700/43



HEWLETT
PACKARD

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in strict accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits of a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protections against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever steps may be required to correct the interference.

For Germany

This equipment has been certified to comply with the German PTT regulations FTZ 1046/84.

Notice

The information contained in this document is subject to change without notice. Hewlett-Packard makes no warranty of any kind with regard to this material including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Copyright © 1988 Hewlett-Packard Company

Roseville Terminals Division
8020 Foothills Blvd.
Roseville, CA 95678-6502

The ADDS Viewpoint A2 Video Display Terminal is a product of Applied Digital Data Systems, Inc.

The Hazeltine 1500 Video Display Terminal is a product of Hazeltine Corporation.

The ADM 3A and ADM 5, and ADM 31 Terminals are products of Lear Siegler, Inc.

The QVT-101 Video Display Terminal is a product of Qume Corporation.

The TeleVideo 905, 910+, 925E, and 950 Video Display Terminals are products of TeleVideo Systems, Inc.

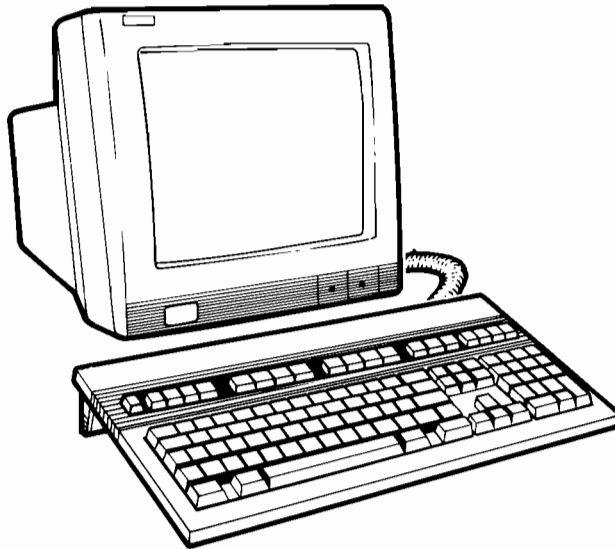
The WY-30 and WY-50 Display Terminals are products of Wyse Technology.

Printing History

First Edition—February 1988 (Printed in Singapore)

Preface

The HP 700/41 and HP 700/43 Display Terminals are high-performance, low-cost ASCII terminals. Designed and built in the Hewlett-Packard tradition of quality, the terminal offers ergonomic features, powerful functionality and exceptional display quality.



HP 700/41 Features

Ergonomic Features

- Tilt and swivel display screen
- Etched/dark anti-glare screen
- Brightness control
- Detached, slant adjustable, low-profile keyboard
- Small footprint

Compatibility Modes

- WY-30 terminal
- TeleVideo 905, 910+ and 925E terminals
- ADDS Viewpoint A2 terminal
- Hazeltine 1500 terminal
- Lear Siegler ADM 3A and ADM 5 terminals
- Qume QVT-101 terminal

Display Screen

- 14 inch, green or amber phosphor
- 27 lines by 80 columns
- 7 x 11 dot matrix in a 9 x 14 character cell
- Superior character formation: half dot shift and true descenders
- CRT screen saver

Keyboard

- Enhanced, 106-key keyboard
- 16 function keys (shiftable to 32)
- Tactile feedback
- 58 programmable keys (total)
- National language keyboards and character sets available
- Keyclick, enable/disable

Communications

- Two fully independent serial ports for computer and local printer connections
- Baud rates up to 38400

Additional Features

- Easy-to-use Setup menus
- Smooth scroll
- Non-volatile RAM for saving setup values and programmed keys
- Split screen capability
- Copy and transparent print modes
- Keyclick enable/disable
- 16-character line drawing character set

HP 700/43 Features

In addition to the HP 700/41 features, the HP 700/43 has the following features:

Ergonomic Features

- Contrast control

Display Screen

- Soft white screen phosphor
- 27 lines by 80 or 132 columns

Compatibility Modes

- WY-50 terminal
- TeleVideo 950 terminal
- Lear Siegler ADM 31 terminal

Memory

- Four pages of display memory

Additional Features

- Bidirectional auxiliary port
- Downloadable character set

Where to Find More Information

If you need more detailed information about the terminal, or intend to write programs for the terminal, refer to the “*HP 700/41–HP 700/43 Reference Manual*” (part number 5959-5013). You can obtain it by contacting your local HP Sales Office, or call HP’s Direct Marketing Division at (800) 538-8787.

Table of Contents

Chapter 1. Installation

Getting Ready	1-1
Preparing the Terminal for Use	1-3
Turning the Terminal On and Off	1-4
Adjusting for Comfort	1-5

Chapter 2. Terminal Setup

Introduction	2-1
The Status Line in Setup Mode	2-2
Entering Setup Mode	2-3
Exiting Setup Mode	2-4
Using the Setup Menus	2-5
How to Access the Setup Menus	2-5
How to Change Setup Values	2-6
Terminal Setup Menu (HP 700/41)	2-8
User Setup Menu (HP 700/43)	2-12
System Setup Menu HP 700/43)	2-15
Main Port/Printer Port Setup Menu (HP 700/41)	2-18
Main Port/Auxilliary Port Setup Menu (HP 700/43)	2-20
Keyboard Setup Menu	2-24
Programming the Terminal's Keys	2-28
Programmable Keys Setup Menus	2-29
Function Keys Setup Menus	2-32



HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Chapter 3. Using the Terminal

Introduction	3-1
The Display Screen.....	3-2
The Screen Areas	3-2
The Cursor.....	3-3
Status Line Messages	3-3
The Keyboard	3-6
Typewriter Keys	3-6
Terminal Control Keys	3-7
Editing Keys	3-10
Numeric Keypad	3-11
Function Keys	3-11
Entering Data	3-12
Memory Pages.....	3-12
Windows	3-12
Window/Page Data Capacity	3-12
Printing	3-13
Printing the Screen Contents	3-13
Copy Print Mode.....	3-13
Transparent Print Mode.....	3-13

Chapter 4. Troubleshooting and Maintenance

Problems and Solutions	4-1
Preventive Maintenance	4-4

Appendix A. Connector Pin Assignments

Appendix B. Terminal Commands Summary

Appendix C. International Keyboards

Index

List of Illustrations

Figure		Page
1-1	Terminal Components	1-2
1-2	Terminal Rear Panel Connections	1-3
1-3	Terminal Controls.....	1-4
1-4	Keyboard Angle Adjustment.....	1-5
2-1	Status Line in Setup Mode	2-2
2-2	Terminal Setup Menu (HP 700/41)	2-8
2-3	User Setup Menu (HP 700/43)	2-12
2-4	System Setup Menu (HP 700/43)	2-15
2-5	Main Port/Printer Port Setup Menus (HP 700/41)	2-18
2-6	Main Port/Auxilliary Port Setup Menus (HP 700/43)	2-20
2-7	Keyboard Setup Menu (HP 700/41)	2-24
2-8	Keyboard Setup Menu (HP 700/43)	2-25
2-9	Programmable Keys Setup Menu (Typical) (HP 700/41).....	2-29
2-10	Programmable Keys Setup Menu (Typical) (HP 700/43).....	2-30
2-11	Function Keys Setup Menu (Typical)	2-32
3-1	Display Screen	3-2
3-2	Status Line (HP 700/41)	3-3
3-3	Status Line (HP 700/43)	3-3
3-4	Terminal Keyboard.....	3-6
A-1	Connector Pin Locations	A-1



Installation

This chapter tells you how to install the terminal, turn it on and off, and adjust the terminal for your comfort.

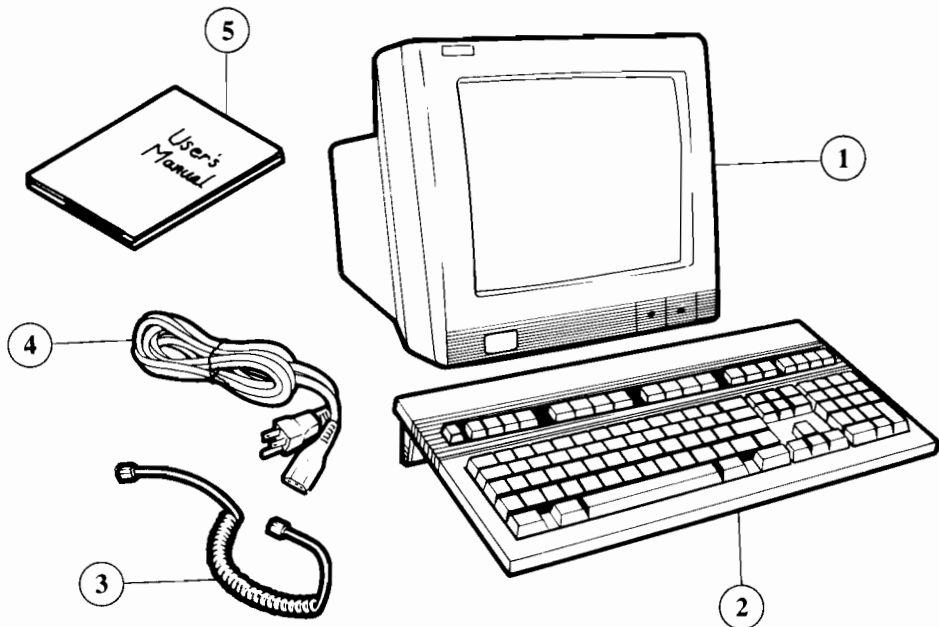
Getting Ready

If the terminal is still in its shipping container, unpack the terminal. You should have the display unit, keyboard, keyboard cable, power cord, and User manual. Keep the container and other packing material in case the terminal has to be repacked at a later date.

Visually inspect the contents. If any of the components are missing or appear damaged in any way, do not install the terminal. Instead, contact an HP Sales and Service Office.

CAUTION

Under no circumstances should you open your terminal to expose its internal circuitry. Only a qualified service engineer should perform maintenance procedures that require opening the terminal case.



- 1) Display Unit 2) Keyboard 3) Keyboard Cable
4) Power Cable 5) User Manual

Figure 1-1. Terminal Components

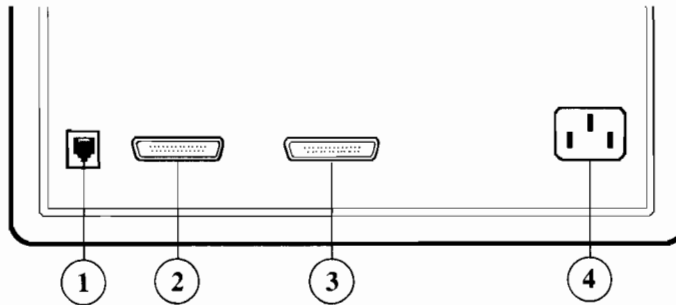
You will need a 25-pin male RS-232 cable to connect the terminal to a computer or modem. If you also are going to connect the terminal to a printer, you will need a 25-pin male cable for that purpose as well.

The cable(s) must match the pin assignments specified in Appendix A; otherwise, the terminal will not work properly. If the cables supplied to you do not match the terminal's requirements, contact your computer department manager or an HP Sales and Service Office.

You will have to plug the power cord into a grounded power outlet. The terminal works with any voltage rating from 100 to 240 VAC. There is no voltage setting for you to adjust on the terminal.

Air ventilation for the terminal is through the top, rear and bottom. Do not obstruct its ventilation. Don't set anything on top of the terminal or close to its rear panel.

1-2 Installation



**1) Keyboard Connector 2) Data Comm Port
3) Printer Port (HP 700/41) or Auxiliary Port (HP 700/43) 4) Power Connector**

Figure 1-2. Terminal Rear Panel Connections

Preparing the Terminal for Use

Follow these steps to connect the terminal to your computer or modem, and to a printer.

- 1.** Make sure the power on/off button is set to off (pushed in is on, out is off) and the power cord is not connected to the terminal.
- 2.** Connect the keyboard cable. Both ends are identical. Plug one end into the receptacle on the rear of the keyboard. Plug the other end into the keyboard cable receptacle on the left rear of the terminal.
- 3.** Connect the computer interface cable to the DATACOMM port on the terminal. This is the left port on the rear of the terminal. The port is shaped so that the connector fits in only one way. The other end of the cable must be connected to a RS-232 computer port or modem. If you are connecting to a modem, follow the installation instructions in its manual.
- 4.** If you have a printer, connect the printer's interface cable to the Printer port on the center rear of the terminal. Make sure the other end of this cable is correctly fastened to the printer.
- 5.** Make sure the cables are fastened securely. To do this, use a 1/8th inch flat blade screw driver to tighten down the screws on the cable connectors.
- 6.** Now connect the power cord. Plug the slotted end into the AC socket on the right rear of the terminal. Plug the three-pronged end into the electrical power outlet.

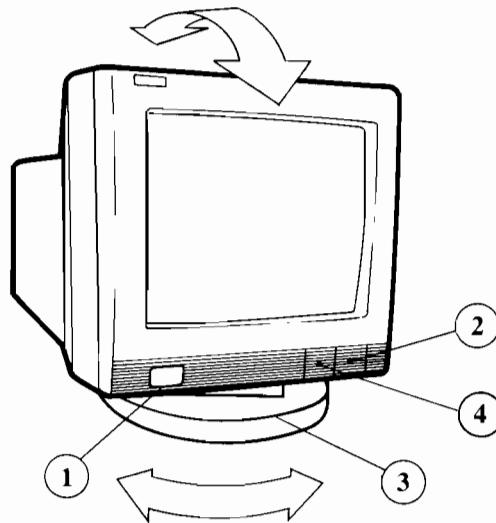
Turning the Terminal On and Off

After following the installation steps listed above, you're ready to turn on the terminal. Press the power button on the front left of the terminal. The button remains pushed in while the terminal is on.

You'll hear a beep when you turn on the terminal. The terminal performs a quick self-test every time it's powered on. If there are any problems, refer to *Chapter 4, "Troubleshooting"*.

After the self-test is done, the screen display comes on. In *Chapter 3, "The Display Screen"* section provides an illustration of what the screen may look like when it comes on.

To turn the terminal off, push the power button again so that it protrudes.



- 1) Power Switch 2) Brightness Control
3) Tilt and Swivel Pedestal 4) Contrast (700/43)

Figure 1-3. Terminal Controls

Adjusting for Comfort

The brightness control is a slide switch under the front right corner of the display unit. To increase or decrease display brightness, slide the switch to the left or right.

The contrast control on the HP 700/43 terminal is also a slide switch, which can be moved to left or right to increase or decrease the contrast.

To adjust the tilt, move the top of the display unit gently up or down until the angle is most comfortable for you. The display unit remains tilted at the angle in which you leave it.

The base of the display unit allows you to swivel the unit freely to the right and left.

The keyboard can either lie flat or be raised at an angle. To raise the keyboard at an angle, flip down the bar on the rear underside of the keyboard.

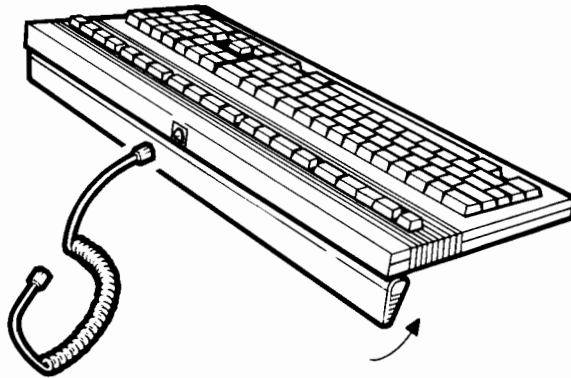


Figure 1-4. Keyboard Angle Adjustment



Terminal Setup

Introduction

This chapter tells you how to use the terminal's Setup Mode.

Setup Mode consists of a series of menus which let you adjust the terminal so that it can communicate properly with your computer, application programs and peripherals. You can also use Setup Mode to choose the features that make using the terminal most convenient.

You won't use Setup Mode very often. For instance, you'll use Setup Mode when you first set up your terminal to work with a computer or printer. And occasionally you may want to use Setup Mode to make minor adjustments to specific features of the terminal.

Ask your EDP department or consult your system software documentation regarding the parameter values that should be entered in Setup Mode to ensure the terminal communicates correctly with your computer. If there's a printer connected to the terminal, look up its communication requirements in its manual. Use the worksheet on the inside back cover of this manual to write down the Setup information you need.

Using Setup Mode is summarized as follows:

- Enter Setup Mode.
- Access a Setup Menu that contains fields you want to change.
- Make the changes. Setup value changes can be temporary, lasting until you turn off or reset the terminal. Or you can save the changes for ongoing use.
- Continue to another Setup Menu and make more changes as needed.
- Exit Setup Mode when you are finished changing Setup values.

The Status Line in Setup Mode

When a setup menu is displayed, the status line display is different from normal (Figure 2-1). Table 2-1 describes the messages.

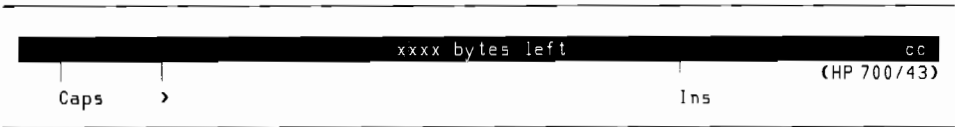


Figure 2-1. Status Line in Setup Mode

Table 2-1. Status Line Messages in Setup Mode

Message	Description
Caps	Caps Mode is on.
>	There is data in the datacomm input buffer. (The terminal continues to receive data in Setup Mode.)
xxxx bytes left	Remaining non-volatile memory left for storing programmable/function key strings.
Ins	Insert Mode on.
cc (700/43)	Cursor position, in columns, relative to the start of the current menu field.

Entering Setup Mode

CAUTION

Do not enter Setup Mode while the computer is sending data to the terminal. The terminal's input buffer can store up to 255 characters. Any data received beyond this limit while the terminal is in Setup Mode will be lost.

To enter Setup Mode, press the **Setup** key while holding down the **Shift** key. This causes the Setup Directory Line labels to be displayed at the bottom of the screen:

user setup	system setup	datacomm setup	keyboard setup	program keys	function keys		exit setup
---------------	-----------------	-------------------	-------------------	-----------------	------------------	--	---------------

These labels are enacted by pressing the corresponding keys shown below:

F1 **F2** **F3** **F4** **F5** **F6** **F8**

In Setup Mode, lowercase labels lead to another menu or exit, and uppercase labels indicate a performable task.



Exiting Setup Mode

NOTE

If you want to save changes for ongoing use, be sure to press **F1** **SAVE FOR POWER ON** before leaving the setup menu that contains your changes. Otherwise, the changes will be in effect only until the terminal is powered off or a hard reset is performed.

Upon exiting Setup Mode, the data that was on the screen when you entered Setup Mode is redisplayed.

There are two ways to exit Setup Mode. Either mode can be used from any point in Setup Mode:

1. Press the **Setup** key while holding down the **Shift** key. The Setup Directory Line is displayed.
2. Then press **F8** to exit.

Or:

1. Simply press the **Setup** key by itself.

Using the Setup Menus

How to Access the Setup Menus

The labels of the Setup Directory Line lead to Setup menus or to exiting Setup Mode as described in Table 2-2.

Table 2-2. The Labels of the Setup Directory Line

Label	Description
	Press [F1] to display the User Setup Menu.
	Press [F2] to display the System Setup Menu.
	Press [F3] to display the Main Port and Printer or Auxiliary Port Setup Menus.
	Press [F4] to display the Keyboard Setup Menu.
	Press [F5] to display the first Programmable Key Setup Menu. There are three of these menus that you cycle through.
	Press [F6] to display the first Function Keys Setup Menu. There are four of these menus that you cycle through.
	Press [F8] to exit Setup Mode.

The first menu you access in Setup Mode temporarily replaces whatever data had been on the screen. The data will be redisplayed when you exit Setup Mode.

Once a Setup menu is displayed, you can easily cycle through the rest of the menus using the **next menu** and **prev menu** function keys that are part of each Setup menu. The order is the same as listed above. For instance, when the Main Port and Printer Port Setup Menu is displayed, **next menu** leads to the Keyboard Setup Menu, and **prev menu** goes back to the Terminal Setup Menu.

The information displayed on the status line is different when a setup menu is displayed. Refer to “*The Status Line In Setup Mode*”, earlier in this chapter, for details.

How to Change Setup Values

The terminal is shipped from the factory with default Setup values ready for power-on use. To change default values:

1. Access the appropriate Setup Mode menu.
2. Select the field you want to change by pressing the tab or arrow keys or by typing the letter that's next to the field. A field is highlighted when it's selected.
3. Use the labeled function keys when choosing from a series of stored values. These are described below.

When a Setup menu is displayed, you'll see some or all of the following labels at the bottom of the screen (depending on which menu is displayed):



These eight labels are enacted by pressing the corresponding keys shown below:



Table 2-3. The Function Labels for the Setup Menu

Label	Description
SAVE FOR POWER ON	Press [F1] . The currently displayed values are made active immediately and will be put into effect when you exit Setup Mode. Also, the displayed values (except for the fields listed below) are saved in non-volatile memory and will be put into effect when the terminal is next powered on or hard reset. SAVE FOR POWER ON does not pertain to the following fields; instead, they revert to their default values when the terminal is powered on or reset: Time : Hour, Minutes, Block Mode, Status Line, Protect Mode, Monitor Mode, Graph Mode, Bgnd Attr, EDM Char, Block Term and Aux Mode.
NEXT CHOICE	Press [F2] . Displays the next choice in the list of possible selections. Pressing the space bar also displays the next choice.
PREV CHOICE	Press [F3] . Displays the previous choice in the list of possible selections.
SHOW DEFAULTS	Press [F4] . Displays the factory default values for all of the menu's fields.
SHOW ACTIVE	Press [F5] . Displays the currently active terminal settings.
SHOW POWER ON	Press [F6] . Shows the values which are now stored in non-volatile memory and will be in effect when the terminal is next powered on or reset.
previous menu	Press [F7] . Activates the currently displayed values but does not change non-volatile memory. Displays the previous Setup menu.
next menu	Press [F8] . Activates the currently displayed values but does not change non-volatile memory. Displays the next Setup menu.

Here are some tips you may find helpful in using the Setup Menus.

- If you want to make changes in the terminal's setup that will be put into effect when the terminal is powered on or when a hard reset of the terminal is performed, be sure to use **SAVE FOR POWER ON** before exiting the menu.
- If you want to make only temporary changes to the setup, that is, changes that will be active only until you turn off or hard reset the terminal, exit the menu without using **SAVE FOR POWER ON**.
- If you want to see the values that are currently active, use **SHOW ACTIVE**.
- If you want to see the default values, use **SHOW DEFAULTS**.

Terminal Setup Menu (HP 700/41)

Table 2-4 describes the possible values for the Terminal Setup Menu. Default values are listed first. An asterisk next to a default value means that the field always reverts to its default value when the terminal is powered on or reset.

TERMINAL SETUP				
Time : Hour	Minute	Screen Saver	Block Mode	On Line
A not set	B not set	C Off	D Character	E On Line
Smooth Scroll	Auto Scroll	Auto Linefeed	Auto Wrap	Status Line
F Jump	G On	H Off	I On	J On
Protect Mode	Monitor Mode	Graph Mode	Bqnd Attr	Attr Extent
K Off	L Off	M Off	N Dim	O Line
Compatibility	Enhance Mode	Leadin Char	EDM Char	Block Term
P WY-30	Q Off	R Esc	S Null	T Us/Cr
SAVE FOR POWER ON	NEXT CHOICE	PREVIOUS CHOICE	SHOW DEFAULTS	SHOW ACTIVE
			SHOW POWER ON	previous menu
				next menu

Figure 2-2. Terminal Setup Menu (HP 700/41)

Table 2-4. Field Descriptions for the Terminal Setup Menu

Field	Choices	Description
Time : Hour	Not Set * 8: AM 9: AM 10: AM etc.	Hour setting for the Time of Day Clock. The time is displayed only if it's been set by the user or computer since the last power on or hard reset. Reverts to "Not Set" when the terminal is powered off or hard reset. Use NEXT CHOICE or PREV CHOICE . When set, the time is displayed on the terminal's status line.
Minute	Not Set * :00 :01 :02 etc.	Minutes setting for the Time of Day clock. The terminal's Time of Day Clock keeps time until the terminal is powered off or a hard reset is performed.

NOTE

The terminal's Time of Day clock does not operate while the Terminal Setup Menu is displayed. We recommend you update the **Time : Hour** and **Minute** fields just before exiting this menu for accurate time setting.

Screen Saver	15 min 10 min 5 min Off	"Off" disables the screen saver feature so that the display remains on. The other selections indicate how long the display remains on in the absence of any data from the computer or input from the keyboard. Any keystroke or data from the computer turns the display back on without loss of data.
Block Mode	Character Block	Turns Block Mode on and off. The interactive or conversational mode is "Character".
On Line	On * Off	"On" enables, "Off" disables communication with the computer.
Smooth Scroll	Jump smooth 1 smooth 2 smooth 3 smooth 4 smooth 10	"Jump" causes rapid scrolling at the speed in which data is received from the computer. The numbers indicate the possible smooth scrolling speeds in lines per second.

Table 2-4. Field Descriptions for the Terminal Setup Menu (continued)

Field	Choices	Description
Auto Scroll	On Off	When "0ff", the cursor moves from the bottom to the top of the screen. "0n" enables scrolling.
Auto Linefeed	Off On	When "0n", a carriage return moves the cursor to the beginning of the next line. When "0ff", the cursor moves to the beginning of the same line.
Auto Wrap	On Off	When "0n", placing a character in column 80/132 causes the cursor to wrap to the beginning of the next line; when "0ff", the cursor remains in column 80/132.
Status Line	On * Off	Displays or blanks the status line.
Protect Mode	Off * On	When "0n", protects characters in background fields from being overwritten. Background and foreground areas are used in application programs for data entry. Background is that part of the form or menu that users can't change. Foreground areas of the screen are fields in which users can enter data.
Monitor Mode	Off * On	When "0n", control characters will be displayed instead of acted upon.
Graph Mode	Off * On	When "0ff" the normal alphanumeric character set is used; when "0n" the graphics character set is used.
Bgnd Attr	Dim Normal	Determines whether background fields will be displayed dim (half intensity) or in normal video.
Attr Extent	Line Page	A display attribute is active (until another attribute is encountered) down the entire screen or to the end of the line.

Table 2-4. Field Descriptions for the Terminal Setup Menu (continued)

Field	Choices	Description
Compatibility	WY-30 TVI-910+ TVI-925E TVI-905 ADDS-VP/A2 QVT-101 HAZ-1500 ADM-3A ADM-5	Specifies the compatibility mode in which the terminal will operate.
Enhance Mode	Off On	When "On", the terminal will process an extended command set beyond the basic set of the terminal model listed in the Compatibility field. This command set accesses most of the terminal's capabilities, regardless of the terminal selected for compatibility. For strict compatibility, Enhance Mode should be off. Refer to the reference manual for details.
Leadin Char	Esc ~	The character which will be used to introduce a command sequence. Normally, it should be "Esc" except as required by applications using the HAZ-1500 Compatibility Mode.
EOM Char	Null Etx Eot Cr	End of Memory character, terminates a block transfer. Applicable only for Qume QVT-101 terminal Compatibility Mode.
Block Term	Us/Cr CrLf/Etx	The characters used to separate lines and terminate block transfers. Applicable only for WY-30 Compatibility Mode.

User Setup Menu (HP 700/43)

Table 2-5 describes the possible values for the User Setup Menu. Default values are listed first. An asterisk next to a default value means that the field always reverts to its default value when the terminal is powered on or reset.

USER SETUP

Time : Hour

Minute

Screen Saver

Screen Attr

Refresh Rate

A not set

B not set

C 15 Min

D Normal

E 72

Cursor Type

Cursor

Smooth Scroll

Status Line

On Line

F Blink Line

G On

H Jump

I On

J On Line

SAVE FOR
POWER ON

NEXT
CHOICE

PREVIOUS
CHOICE

SHOW
DEFAULTS

SHOW
ACTIVE

SHOW
POWER ON

previous
menu

next
menu

Figure 2-3. User Setup Menu (HP 700/43)

Table 2-5. Field Descriptions for the User Setup Menu

Field	Choices	Description
Time : Hour	Not Set 8: AM 9: AM 10: AM etc.	Hour setting for the Time of Day Clock. The time is displayed only if it's been set by the user or computer since the last power on or hard reset. Reverts to "Not Set" when the terminal is powered off or hard reset. Use NEXT CHOICE or PREV CHOICE . When set, the time is displayed on the terminal's status line.
Minute	Not Set :00 :01 :02 etc.	Minutes setting for the Time of Day clock. The terminal's Time of Day Clock keeps time until the terminal is powered off or a hard reset is performed.

NOTE

The terminal's Time of Day clock does not operate while the Terminal Setup Menu is displayed. We recommend you update the **Time : Hour** and **Minute** fields just before exiting this menu for accurate time setting.

Screen Saver	15 min 10 min 5 min Off	"Off" disables the screen saver feature so that the display remains on. The other selections indicate how long the display remains on in the absence of any data from the computer or input from the keyboard. Any keystroke or data from the computer turns the display back on without loss of data.
Screen Attr	Normal Reverse	Selects the video enhancement attribute for the entire screen (27 lines). Normal is light data on a dark background. Reverse is dark data on a light background. (Reverse is recommended for a soft white screen phosphor.)

Table 2-5. Field Descriptions for the User Setup Menu (continued)

Field	Choices	Description
Refresh Rate	72 50 60	Selects the screen refresh rate in Hz. (72 is recommended because of flicker when 50 or 60 is selected.)
Cursor Type	Blinking * Line Blinking Box Line Box	Selects the cursor type.
Cursor on/off	On Off	Selects whether or not the cursor will be displayed.
Smooth Scroll	Jump smooth 1 smooth 2 smooth 3 smooth 4 smooth 10	"Jump" causes rapid scrolling at the speed in which data is received from the computer. The numbers indicate the possible smooth scrolling speeds in lines per second.
Status Line	On * Off	Displays or blanks the status line.
On/Off Line	On Off	"On" enables, "Off" disables communication with the computer.

System Setup Menu (HP 700/43)

Table 2-6 describes the possible values for the System Setup Menu. Default values are listed first. An asterisk next to a default value means that the field always reverts to its default value when the terminal is powered on or reset.

SYSTEM SETUP

Screen Width A 80	Multipage B Off	Auto Page C Off	Attr Extent D Line	Band Attr E Dim
Compatibility F WY30/50	Enhance Mode G Off	Lead-in H Esc	EDM Char I Nul	Block Term J Us / Cr
Auto Scroll K On	Auto Linefeed L Off	Auto Wrap M On	Monitor Mode N Off	Graph Mode O Off
Block Mode P Off	Protect Mode Q Off			

SAVE FOR POWER ON	NEXT CHOICE	PREVIOUS CHOICE	SHOW DEFAULTS	SHOW ACTIVE	SHOW POWER ON	previous menu	next menu
----------------------	----------------	--------------------	------------------	----------------	------------------	------------------	--------------

Figure 2-4. System Setup Menu (HP 700/43)



Table 2-6. Field Descriptions for the System Setup Menu

Field	Choices	Description
Screen Width	80 132	Selects the number of columns for the screen and message line.
Multipage	Off 24 48 96 24/72	When on, Multipage Mode allows use of 96 lines of display memory for use in the user data area of the display (as opposed to the normal 24 lines). To turn on Multipage Mode while in ADM-31 or TVI-950 Compatibility Modes, select any of the lines/page selections. For any other compatibility mode, Enhance mode must also be on for Multipage Mode to be on.
Auto Page	Off On	When on, enables cursor movement across page boundaries. A command to move the cursor above the top line of a page moves it to the bottom line of the previous page. A command to move the cursor below the bottom line of a page moves it to the top line of the next page. In both cases, the previous or next page moves into the user data area of the screen. Scrolling status is ignored and page changes are made in jumps.
Attr Extent	Line Page	A display attribute is active (until another attribute is encountered) down the entire screen or to the end of the line.
Bgnd Attr	Dim Normal Reverse	Determines whether background fields will be displayed dim (half intensity), normal, or reverse video.
Compatibility	WY-50/30 TVI-910+ TVI-925E TVI-905 TVI-950 ADDS-VP/A2 QVT-101 HAZ-1500 ADM-3A ADM-5 ADM-31	Specifies the compatibility mode in which the terminal will operate.

Table 2-6. Field Descriptions for the System Setup Menu (continued)

Field	Choices	Description
Enhance Mode	Off On	When "On", the terminal will process an extended command set beyond the basic set of the terminal model listed in the Compatibility field. This command set accesses most of the terminal's capabilities, regardless of the terminal selected for compatibility. For strict compatibility, Enhance Mode should be off. Refer to the reference manual for details.
Leadin Char	Esc ~	The character which will be used to introduce a command sequence. Normally, it should be "Esc" except as required by applications using the HAZ-1500 Compatibility Mode.
EOM Char	Null Etx Eot Cr	End of Memory character, terminates a block transfer. Applicable only for Qume QVT-101 terminal compatibility mode.
Block Term	Us/Cr CrLf/Etx	The characters used to separate lines and terminate block transfers. Applicable only for WY-50/30 compatibility mode.
Auto Scroll	On Off	When "Off", the cursor moves from the bottom to the top of the screen. "On" enables scrolling.
Auto Linefeed	Off On	When "On", a carriage return moves the cursor to the beginning of the next line. When "Off", the cursor moves to the beginning of the same line.
Auto Wrap	On Off	When "On", placing a character in column 80/132 causes the cursor to wrap to the beginning of the next line; when "Off", the cursor remains in column 80/132.
Monitor Mode	Off * On	When "On", control characters will be displayed instead of acted upon.
Graph Mode	Off * On	When "Off", the normal alphanumeric character set is used; when "On" the graphics character set is used.
Block Mode	Off On	Turns Block Mode on and off. The interactive or conversational mode is "Character".
Protect Mode	Off * On	When "On", protects characters in background fields from being overwritten. Background and foreground areas are used in application programs for data entry. Background is that part of the form or menu that users can't change. Foreground areas of the screen are fields in which users can enter data.

Main Port/Printer Port Setup Menu (HP 700/41)

The main and printer ports are independent RS-232 serial ports. Figure 2-5 shows the menu for both ports. Selectable values for each menu field are listed in Table 2-7 with the default values listed first.

MAIN PORT				
Baud Rate	Handshake	Data Length	Parity	Communication
A 9600	B None	C 8 bits	D None	E Full Duplex

PRINTER PORT				
Baud Rate	Handshake	Data Length	Parity	Print Mode
F 9600	G None	H 8 bits	I None	J Off

SAVE FOR POWER ON	NEXT CHOICE	PREVIOUS CHOICE	SHOW DEFAULTS	SHOW ACTIVE	SHOW POWER ON	previous menu	next menu
----------------------	----------------	--------------------	------------------	----------------	------------------	------------------	--------------

Figure 2-5. Main Port/Printer Port Setup Menu (HP 700/41)

Table 2-7. Main Port/Printer Port Setup Menu Fields (HP 700/41)

Field	Choices	Description
Baud Rate	9600 19200 38400 300 600 1200 2400 4800	The baud rate (listed in bits per second) may be different for each port.
Handshake	None Xon/Xoff DTR DTR/Xon/Xoff	Handshaking protocol may be different for each port. Note that both the Main Port and the Printer Port support these handshaking options.
Data Length	8 bits 7 bits	Each port may send and receive 7- or 8-bit characters. There is always one stop bit.
Parity	None 0 1 Odd Even	Parity may be set separately for each port.
Communication	Full Duplex Half Duplex	Communication with the computer can be in full duplex or half duplex mode.
Print Mode	Off * Copy Transparent	"Copy" Print Mode causes data to be displayed on the screen and directed to the printer port. "Transparent" Print Mode causes data to be routed directly to the printer port and not displayed. "Off" disables Copy Print Mode and Transparent Print Mode. Reverts to "Off" when the terminal is powered off or reset.

Main Port/Auxiliary Port Setup Menu (HP 700/43)

The main and printer (or auxiliary) ports are independent RS-232 serial ports. Figure 2-6 shows the menu for both ports. Selectable values for each menu field are listed in Table 2-8.

MAIN PORT				
Baud Rate	Data Length	Parity	Stop Bits	Communication
A 9600	B 8 bits	C None	D 1	E Full Duplex
Recv Pace	Xmit Pace	CTS	DSR	CD
F None	G None	H Ignore	I Ignore	J Ignore
Monitor Line				
K Off				
AUXILIARY PORT				
Baud Rate	Data Length	Parity	Stop Bits	Aux Mode
L 9600	M 8 bits	N None	O 1	P Off
Recv Pace	Xmit Pace	CTS	DSR	
Q None	R None	S Ignore	T Ignore	
SAVE FOR POWER ON NEXT CHOICE PREVIOUS CHOICE SHOW DEFAULTS SHOW ACTIVE SHOW POWER ON previous menu next menu				

Figure 2-6. Main Port/Auxiliary Port Setup Menu (HP 700/43)

Table 2-8. Main Port/Auxiliary Port Setup Menu Fields (HP 700/43)

Field	Choices	Description
Baud Rate	9600	The baud rate (listed in bits per second) may be different for each port.
	19200	
	38400	
	50	
	75	
	110	
	134.5	
	150	
	300	
	600	
	1200	
	2400	
	4800	
Data Length	8 bits	Each port may send and receive 7- or 8-bit characters. For the main port, in all compatibility modes except ADDS Viewpoint A2, the most-significant bit of any 8-bit data received is stripped off. (The A2 uses bit 8 as a foreground/background flag.)
	7 bits	
Parity	None	Parity may be set separately for each port.
	0	
	1	
	Odd	
	Even	
Stop Bit(s)	1	Selects the number of stop bits used in a data frame.
	2	
Communication	Full Duplex	In Character Mode, data sent to the computer must be echoed back by the computer to be displayed on the screen. Transmitted data isn't sent to the screen by the terminal. The <i>RTS</i> signal is always high.
	Half Duplex	In Character Mode, data sent to the computer is also sent to the screen. The <i>RTS</i> signal is active (high) only when there is data to send.

Table 2-8. Main Port/Auxiliary Port Setup Menu Fields (HP 700/43) (continued)

Field	Choices	Description
Recv Pace	None	No receive pacing. (Refer to the " <i>Data Communications</i> " chapter in the reference manual for details on receive pacing.)
	Xon/Xoff	The terminal uses <i>XON/XOFF</i> receive pacing.
	DTR	The terminal uses the <i>DTR</i> signal for receive pacing.
Xmit Pace	None	No transmit pacing used. (Refer to the " <i>Data Communications</i> " chapter of the reference manual for details on transmit pacing.)
	Xon/Xoff	The terminal uses <i>XON/XOFF</i> transmit pacing.
CTS	Ignore	The <i>CTS</i> signal is ignored for data transmission.
	Required	The <i>CTS</i> signal must be active (high) before the terminal will send data.
DSR	Ignore	The <i>DSR</i> signal is ignored for transmitting and receiving data.
	Required	The <i>DSR</i> signal must be active (high) for the terminal to transmit or receive data.
CD	Ignore	The <i>CD</i> signal is ignored for transmitting and receiving data.
	Required	The <i>CD</i> signal must be active (high) for the terminal to transmit or receive data.
Monitor Line	Off CTS DSR CD	Except when off, selects the signal which, when active, will cause an asterisk to appear in column 1 of the status line.

Table 2-8. Main Port/Auxiliary Port Setup Menu Fields (HP 700/43) (continued)

Field	Choices	Description
Aux Mode	Off *	Aux Mode off.
	Copy	Selects Copy Mode. Data received at the main port is displayed and sent out the auxiliary port. Data can still be sent out the main port while Copy Mode is on. Copy Mode is turned off by a hard reset. While on, "Cop" is displayed on the status line.
	Transparent	Transparent Mode on. Data received at the main port is sent out the auxiliary port without being displayed. Data can still be sent out the main port while Transparent Mode is on. Transparent Mode is turned off by a hard reset. While on, "Trn" is displayed on the status line.
	BiDirect	Bidirectional Mode on. Data received at the main port is displayed and sent out the auxiliary port. Data received at the auxiliary port is sent to main port transmit buffer for transmission out the main port to the data source. Data from the keyboard and data received at the auxiliary port is entered in the main port transmit buffer in first-in-first-out order. Transmission of a block of data out the main port is not interrupted by data received at the auxiliary port. The auxiliary port data is not sent to the main port transmit buffer until after transfer of the block of data is complete. Bidirectional Mode is turned off by a hard reset. When on, "BDx" is displayed on the status line.

Keyboard Setup Menu

Table 2-9 describes the possible values for the Keyboard Setup Menu. Default values are listed first. Figures 2-7 and 2-8 show the menus for the two terminals.

KEYBOARD SETUP

Nation	Key Click	Auto Repeat	Edit Keys
A U.S.	B On	C On	D Local
Margin Bell	Cursor Down	Lock or Gate	Lock Enable
E Off	F Ctrl J	G Lock	H On

SAVE FOR POWER ON	NEXT CHOICE	PREVIOUS CHOICE	SHOW DEFAULTS	SHOW ACTIVE	SHOW POWER ON	previous menu	next menu
----------------------	----------------	--------------------	------------------	----------------	------------------	------------------	--------------

Figure 2-7. Keyboard Setup Menu (HP 700/41)

KEYBOARD SETUP

Key Click	Edit Keys	Auto Repeat	Nation	Language
A On	B Local	C On	D U.S.	E English
Margin Bell	Cursor Down	Lock or Gate	Lock Enable	
F Off	G Ctrl J	H Lock	I On	



SAVE FOR POWER ON	NEXT CHOICE	PREVIOUS CHOICE	SHOW DEFAULTS	SHOW ACTIVE	SHOW POWER ON	previous menu	next menu
----------------------	----------------	--------------------	------------------	----------------	------------------	------------------	--------------

Figure 2-8. Keyboard Setup Menu (HP 700/43)

Table 2-9. Fields in the Keyboard Setup Menu

Field	Choices	Description
Nation	US	Allows choice of keyboard type (character set) that is appropriate for you. Select the country that matches the keyboard connected to your display unit. For data received from either the keyboard or main port, the characters displayed will be appropriate to the nation selected in this field.
	Danish	
	Dutch	
	Finnish	
	Flemish	
	French	
	Eng. Canadian	
	Fr. Canadian	
	Fr. Swiss	
	Ger. Swiss	
	German	
	Italian	
	Norwegian	
	Eur. Spanish	
	Latin Spanish	
	Swedish	
	U.K.	
Key Click	On	Enables/disables the audible click sound when the keys are pressed.
	Off	
Auto Repeat	On	When "On", most keys will repeat automatically if held down longer than 1/2 second. [Scroll Lock] , [Setup] , [Copy Pr/Print Pg] , [Send Page Line] , and [Caps] do not repeat.
Edit Keys	Local	When "Local", the edit keys act on displayed characters and do not cause commands to be sent to the computer. When "Remote", the edit keys cause commands to be sent to the computer and do not result in local action unless the commands are echoed.
	Remote	

Table 2-9. Fields in the Keyboard Setup Menu (continued)

Field	Choices	Description
Language (700/43)	English Danish Dutch Finish French German Italian Norwegian Spanish Swedish	Selects the language in which the setup function key labels and terminal-generated messages will be displayed.
Margin Bell	Off On	Disables/enables the bell sounding when the cursor reaches column 72 or 124.
Cursor Down	CTRL J CTRL V	The TeleVideo Compatibility modes may use either of these control codes for cursor down. If you are using the terminal in a TeleVideo Compatibility mode, set this field to meet your application requirements.
Lock or Gate	Lock Gate	Applies only to ADM Compatibility modes. "Lock" allows the SI and SO control codes to lock and unlock the keyboard. "Gate" allows these codes to enable and disable the printer port.
Lock Enable	On Off	When "Off", applications cannot lock the keyboard. Normally this should be "On".

Programming the Terminal's Keys

The terminal has 58 keys that you can program. The Programmable Keys setup menus allow you to program 26 of these keys. The Function Key setup menus allow you to program 32 keys.

The distinctions between these two groups of menus are:

- Keys in the Programmable Keys Setup menus are terminal control and numeric keypad keys. Their definitions are sent to the computer.
- Keys in the Function Key Setup menus are the terminal's function keys (f keys). You can specify the destination of each function key. (It is also possible to use escape sequences to create screen labels for the function keys. This is explained in the reference manual.)

The following rules apply to programming these keys:

- The 58 keys can hold, in total, up to 940 characters.
- The first 117 (HP 700/41) or 940 (HP 700/43) characters entered are saved in non-volatile memory. The remainder of the characters are saved only until the terminal is powered off or hard reset.
- The string of characters from the setup menu for any key cannot exceed 64 characters.
- The keys are stored in memory in the order in which they are presented in the menus.

Keeping the character strings as short as possible allows strings for more keys to be saved.

Programmable Keys Setup Menus

PROGRAMMABLE KEYS 1

escape
A [REDACTED]
tab
B [REDACTED]
backspace
C [REDACTED]
del
D [REDACTED]
return
E [REDACTED]
linefeed
F [REDACTED]
keypad tab
G [REDACTED]
answerback
H [REDACTED]

SAVE FOR NEXT PREVIOUS SHOW
POWER ON CHOICE CHOICE DEFAULTS

SHOW SHOW previous next
ACTIVE POWER ON menu menu
1000 bytes free

Figure 2-9. Programmable Keys Setup Menu (Typical) (HP 700/41)

PROGRAMMABLE KEYS 1

A	Escape
B	This is a sample string
C	Tab
D	Backspace
E	Delete
F	Return
G	Linefeed
H	Keypad Tab
I	Cursor Up
	Answerback

SAVE FOR

POWER ON

SHOW

DEFAULTS

SHOW

ACTIVE

SHOW

POWER ON

previous

menu

next

menu

785 bytes free

Figure 2-10. Programmable Keys Setup Menu (Typical) (HP 700/43)

There are three programmable keys setup menus which allow you to program 26 keys:

- ESC, TAB, BACKSPACE, DEL, RETURN, LINEFEED
- The four arrow keys, HOME, and the numeric keypad comma, minus sign, period, Enter, and Tab (numeric keypad) keys
- The numeric keypad keys 0 through 9

(The "answerback" field is not for a key on the keyboard. Instead, it lets you enter a character string that the terminal sends in response to "ENQ" requests from the computer. However, it uses memory space just like the other keys. Enter a string for this field just as you do for the other fields.)

The programmable keys setup menus do not use the **NEXT CHOICE**, **PREV CHOICE** and **SHOW DEFAULT** function labels. These menus use fill-in fields only, not lists of possible selections.

Use **previous menu** or **next menu** to access a programmable keys setup menu that contains a key you want to program.

Follow the steps below to program one or more keys:

1. Highlight the fill-in field for a key you want to program by pressing **Tab** or the “arrow keys”. Or, while holding down the **Func1** key, press the key of the letter that’s next to the field you want to highlight.
2. Type the characters you want this key to send to the computer. The edit keys can be used to edit the string. Escape sequences and control codes (such as CR for carriage return) can be included in the string. Each character in an escape sequence or control code counts as one character.
3. Repeat steps 2 and 3 until finished with the keys on that menu.
4. To save the characters in non-volatile memory, press **F1** **SAVE FOR POWER ON**.
5. Exit the menu by pressing either **F7** **previous menu**, **F8** **next menu** or the **Setup** key.

If you clear a fill-in field for a key, the key reverts to its default value.

A message at the bottom of these screens tells you the amount of terminal (volatile) memory currently available for string storage. The message “*1000 bytes free*” (HP 700/41) or “*940 bytes free*” (HP 700/43) indicates that no character strings have yet been saved in the terminal’s memory. This number decreases as strings are saved.

Remember, up to 117 (HP 700/41) or 940 (HP 700/43) characters total for programmed keys can be saved in non-volatile memory. This limit includes characters saved via both the programmable keys and function keys menus.

If you want to see which characters have been saved in non-volatile memory, press **F1** **SAVE FOR POWER ON**. If you’ve saved additional characters in volatile memory, you can display them by pressing **F5** **SHOW ACTIVE**.

Note that one additional byte is added to the length of each string saved in the HP 700/41 terminal’s non-volatile memory. This is also true for the HP 700/43 terminal, but it applies to both standard (volatile) and non-volatile memory.

Function Keys Setup Menus

FUNCTION KEYS 1

f1	A Remote	B	
f2	C Remote	D	
f3	E Remote	F	
f4	G Remote	H	
f5	I Remote	J	
f6	K Remote	L	
f7	M Remote	N	
f8	O Remote	P	

SAVE FOR	NEXT	PREVIOUS	SHOW		SHOW	SHOW	previous	next
POWER ON	CHOICE	CHOICE	DEFAULTS		ACTIVE	POWER ON	menu	menu

1000 bytes free

Figure 2-11. Function Keys Setup Menu (Typical)

The top rows of the main keypad and numeric keypad contain function keys which you can program. There are effectively 32 function keys, although only 16 keys are labeled as such on the keyboard. Pressing a function key while holding down the **[Shift]** key provides the additional 16 function keys.

There are four function keys setup menus. The first menu pertains to keys F1 through F8, and the second menu pertains to keys F9 through F16. The third and fourth menus pertain to the shifted function keys. A shifted function key is identified in the menus with an "s". For instance, sF1 denotes the **[F1]** key pressed while holding down the **[Shift]** key. The third menu pertains to sF1 through sF8, and the fourth menu pertains to sF9 through sF16.

There are two fields for each function key: its destination field (the smaller field on the left) and the program fill-in field.

The possible destination choices for each key are:

- Remote — For transmission to the computer
- Local — For use locally at the terminal only
- Rem & Loc — For both remote and local use
- Printer — For transmission to the printer/auxiliary port only.

Use **previous menu** or **next menu** to access a Function Keys setup menu that contains a key you want to program.

If you want to change a key's destination, highlight the destination field and press **F1** or **F2** to display the desired destination.

The destinations for F1 through F8 and sF1 through sF8 can be saved in non-volatile memory. The destinations of F9 through F16 and sF9 through sF16 revert to default destinations when the terminal is powered on or reset.

To program one or more function keys, follow the steps described in the *“Programmable Keys Setup Menu”* section. The comments after those steps apply here also.

Using the Terminal

Introduction

This chapter describes how to use the display screen and keyboard. It also describes how the terminal can be used with a connected printer.

NOTE

If you don't know how to turn the terminal on and off or adjust its controls, refer to "*Turning the Terminal On and Off*" in Chapter 1.

The Display Screen

The Screen Areas

The terminal's display screen has 27 rows divided into four regions.

- The top 24 rows are the user workspace. It displays a single page of display memory. It can be divided into two independently scrolling windows (as explained in the reference manual).
- Row 25 is the function key label line.
- Row 26 is the computer message line. Messages from computer application programs are displayed on this line.
- Row 27 is the terminal's status line. It displays brief messages indicating the terminal's status. (See "*Status Line Messages*" later in this section.)

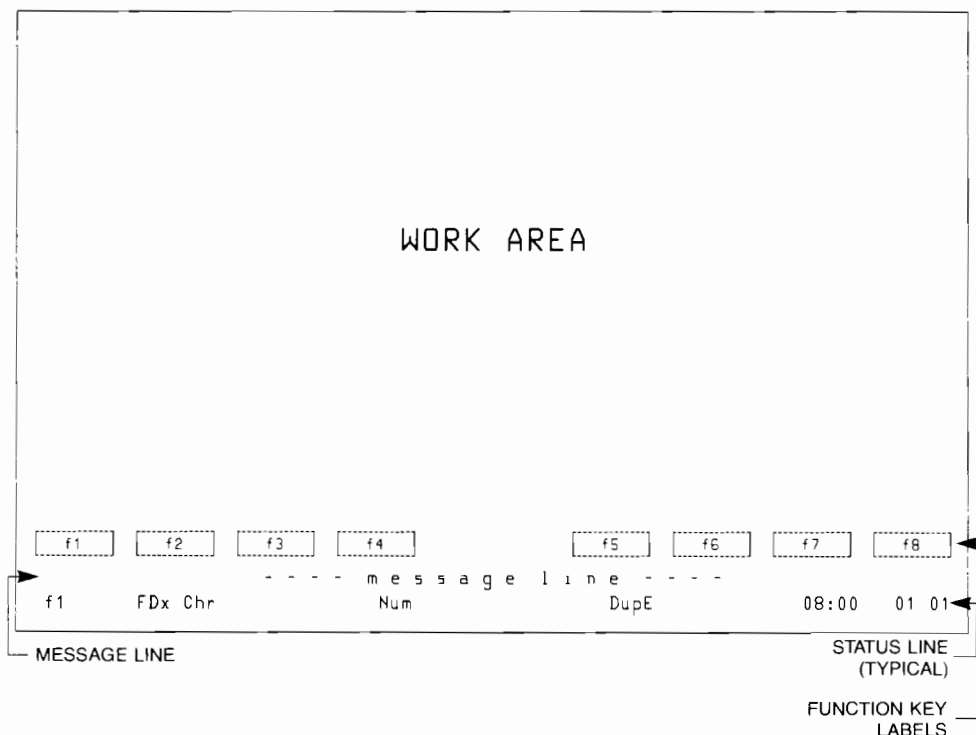


Figure 3-1. Display Screen

The Cursor

The cursor indicates where the next character you type will appear on the screen. For the 700/43, the cursor type is selectable on the User Setup Menu as either a blinking line, a blinking box, a steady line, or a steady box, and may be on or off. The cursor for the HP 700/41 is a blinking line.

Status Line Messages

The terminal's status messages, which are displayed on the bottom line of the screen, are summarized in Table 3-1.

Specific areas of the status line are reserved for the messages. The figures below illustrate all the possible status messages and the positions where they will appear. Note that only one message can be displayed at each position at any given time.

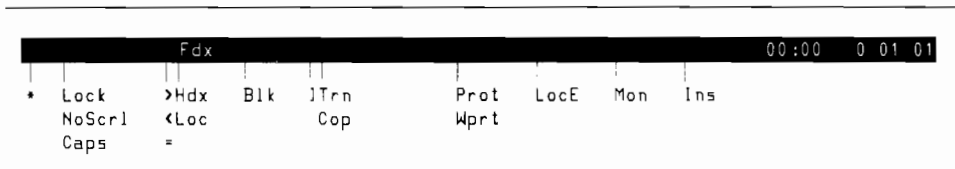


Figure 3-2. Status Line (HP 700/41)

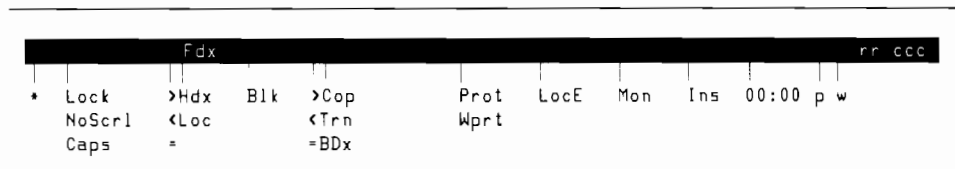


Figure 3-3. Status Line (HP 700/43)

If a message is not displayed, this means the condition is not operative at the moment. For instance, "Ins" is displayed only when Insert Mode is on. Some of the messages indicate operating values that have been activated in Setup.

The "Status Line" field in the Terminal (HP 700/41) or User (HP 700/43) Setup Menu allows the status line to be blanked from the screen.

Table 3-1. Status Line Messages

Message	Description
*	For the HP 700/43, displayed when the datacomm signal (<i>CTS</i> , <i>DSR</i> , <i>CD</i>) selected in the "Monitor Line" field of the Main Port Menu is active. For the HP 700/41, the asterisk is present when any one of the three signals is active.
Lock	The keyboard is in a locked state. If it persists, press Reset to unlock.
Caps	Caps Lock Mode is on.
NoScri	The Scroll Lock key has been pressed.
>	There is data (from the computer) in the terminal's input buffer.
<	There is data (being sent to the computer) in the terminal's output buffer.
=	There is data in both the input and output buffers.
FDx	The terminal is operating in Full Duplex mode.
HDx	The terminal is operating in Half Duplex mode.
Loc	The terminal is operating in Local Mode (not in communication with the computer).
Blk	The terminal is operating in Block Mode. If blank, the terminal is in Character Mode.

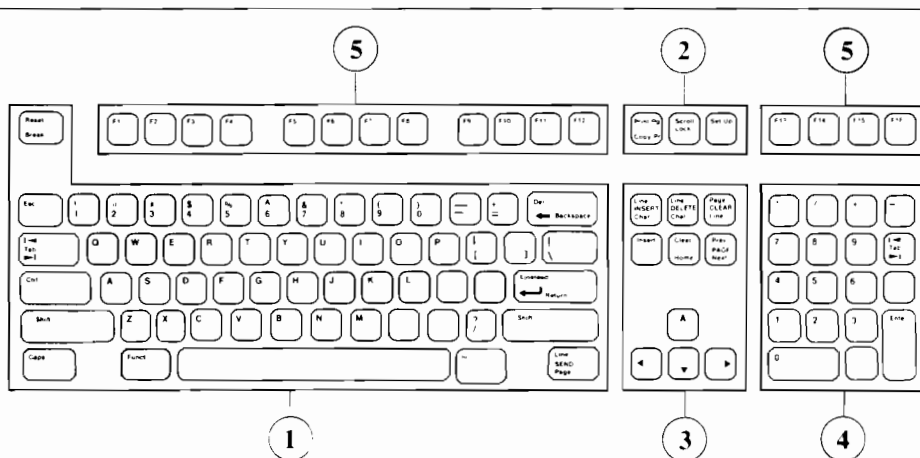
Table 3-1. Status Line Messages (continued)

Message	Description
l	There is data in the printer port buffer waiting to be printed. (700/41)
>	There is data in the AUX port input buffer. (700/43)
<	There is data in the AUX port output buffer. (700/43)
=	There is data in both buffers. (700/43)
Cop	Copy Print Mode is on.
Trn	Transparent Print Mode is on.
Bdx	Bidirectional Mode is on. (700/43)
Prot	Protect Mode is on.
Wprt	BG Follows (Background Mode) and Protect Mode are on. All characters entered become protected.
LocE	The editing keys are in Local Mode (the keys act directly on displayed data without involving the computer).
Mon	Monitor Mode is on.
Ins	The terminal is in Insert Character mode.
00:00	Time (in hours and minutes). To be displayed, the current time must be set in Setup Mode or by the computer.
p	Page currently displayed. "p" = 0, 1, 2, or 3, and is displayed only in Multipage Mode. (700/43)
w	Active window. "w" = 0 or 1.
w rr ccc	The cursor's position indicated by window, column and line. (In this example, window 1, row 1, column 1.)



The Keyboard

There are 106 keys on the terminal's keyboard.



- 1) Typewriter Keys and Terminal Control Keys 2) Terminal Control Keys
3) Editing Keys 4) Numeric Keypad 5) Function Keys

Figure 3-4. Terminal Keyboard (USASCII)

Typewriter Keys

The typewriter keys let you type letters, numbers and symbols just as you would with a standard typewriter. Most keys are repeated if held down for more than a half second. This repeat-key feature is selectable in Setup Mode.

Terminal Control Keys

The terminal control keys let you perform such functions as move the cursor, send data to the computer and reset the terminal.

Table 3-2 lists the terminal control keys and their default definitions. The keys function as described in Table 3-2 unless you have reprogrammed them (as explained in Chapter 2), or the computer applications you are using have assigned different meanings to the keys.

If you are using the terminal offline (local mode), the keys have the effects described here as applicable. For instance, the `Break` key is inoperative when the terminal is offline.

Appendix B contains the control codes and escape sequences for the keys described in this chapter.

NOTE

For all the tables in this chapter:

- `Shift` + key means to press the indicated key while holding down the `Shift` key
 - `Ctrl` + key means to press the indicated key while holding down the `Ctrl` key
-

Table 3-2. Terminal Control Keys

Key	Description
Reset	Press Shift + Break . Causes a “soft” or partial reset of the terminal: unlocks the keyboard, clears error messages and turns off print modes. Ctrl + Shift + Break causes a “hard” reset, equivalent to turning the terminal off and on.
Break	Sends a Break signal for 170 milliseconds. Normally this discontinues an application’s control of the terminal (you exit the program). Ctrl + Break sends a longer break signal of 500 ms.
Esc	Sends an escape character. The escape sequences and control codes for the terminal’s compatibility modes are summarized in Appendix B.
Tab	The cursor moves to the next tab stop or to the right margin if no tabs are encountered. Shift + Tab moves the cursor to the previous tab or the left margin if no tabs are encountered.
Ctrl	Used with other keys to send control codes and provide specific functions. Hold Ctrl down while pressing the other key.
Shift	Selects a key’s upper symbol. Capitalizes alphabetic keys. Changes effects of some keys. Hold Shift down while pressing the other key.
Caps	Turns on/off caps lock. When on, “Caps” is displayed in the Status line and alphabetic characters are set to uppercase. When on, you can press Shift and an alphabetic key for lowercase.
Funct	Application programs can use the Funct key to provide additional functions and commands. Press the indicated alphabetic key while holding down the Funct key. Sends SOH, the other key’s code and a carriage return.
Line SEND Page	Sends a block of data (from Home position to cursor position) to the computer. Shift + SEND sends a line of data (from left column to cursor position) to the computer.

Table 3-2. Terminal Control Keys (continued)

Key	Description
Return	Moves the cursor to beginning of next line when Setup's Auto Linefeed field is set to "On". Moves the cursor to the beginning of the same line if this field is set to "Off".
Linefeed	Press Shift + down arrow key. Moves the cursor down a line in the same column.
Back Space	Moves the character to the left one space. From column 1, the cursor wraps to column 80 of the previous line.
Del	Press Shift + Del . Displays ■ in Local mode. In Online Mode, the effect of Del depends on the application program.
Print Pg	Press Shift + Print . All the data between the screen's top and the cursor position is sent to the terminal's printer port.
Copy Pr	Turns on/off Copy Print Mode. (See "Printing" later in this chapter.)
Scroll Lock	Press once to tell the computer to stop sending data to the terminal (scrolling stops). Press again to tell the computer to resume sending data (scrolling resumes). When active, "NoScrl" is displayed on the status line. Use of this key when handshaking has not been specified may cause loss of data.
Set Up	Press Shift + Set Up to enter Setup Mode. Press Set Up to exit Setup Mode.

Editing Keys

The editing keys are located on the middle pad between the main keypad on the left and the numeric keypad on the right. Table 3-3 describes the editing keys. Note that the arrow keys and Home key function as described in Table 3-3 unless they have been reprogrammed.

Table 3-3. Editing Keys

Key	Description
Line INSERT Char	Inserts a space at the cursor position; characters to the right of the cursor are moved another space right. Characters overflowing the right margin are lost. Does not affect Insert Mode. Shift + Insert inserts a line, moves the cursor to the left margin, and the lines below are moved down one line.
Line DELETE Char	Deletes the character at the cursor position, and moves the remaining characters on the line one space to the left. Shift + Delete deletes the line, moves the cursor to the left margin, and the lines below are moved up one line.
Page CLEAR Line	All data from the cursor to the end of the line is replaced with spaces. Shift + Clear causes all data from the cursor to the end of the screen to be replaced with spaces.
Insert	Turns Insert Mode on/off. "Ins" is displayed on the status line when Insert Mode is on. Inserts characters you type; any characters right of the cursor are moved right.
Clear	Homes the cursor and clears the entire window (or page for an HP 700/43 in Multipage Mode).
Home	Moves the cursor to line 1, column 1. (The top left corner of the window—or page for an HP 700/43 in Multipage Mode—is called "home").
Prev PAGE Next	Moves the cursor to its previous position in the other window. Active only when the screen is split into two windows (a feature controlled by the host application). For the HP 700/43 terminal, the action is as just described, except in Multipage Mode. When Multipage Mode is on, the previous or next page is displayed.
Arrow Keys	The cursor is moved in the direction of the arrows. When the cursor passes the edge of the screen, it resumes moving in the same direction from the opposite end of the screen.

Numeric Keypad

The numeric keypad on the right side of the keyboard contains number and symbol keys arranged like an adding machine for rapid entry of numeric data.

Note that these keys can be reprogrammed (explained in Chapter 2). If you have reprogrammed them, they will perform whatever new functions you have assigned to them.

Function Keys

The top row of the main keypad and the top row of the numeric pad contain the terminal's function keys. Function keys provide your terminal with the capability to perform customized functions.

You can program function keys as described in Chapter 2 (see “*Programming the Terminal's Keys*”). If you have not programmed a function key, then pressing the key causes it to send its default code. Some computer applications are designed to perform specialized functions when they receive the function keys' default codes. You should not program any function keys that are required for use by your computer applications.

There are effectively 32 functions keys, although only 16 keys are labeled as such on the keyboard. Each function key can be pressed alone (unshifted). Also, each function key can be shifted, that is, pressed while holding down the **Shift** key.

Computer applications can display labels on the terminal screen that correspond to the function keys. Up to eight customized labels (16 for an HP 700/43 in 132-column mode) can be displayed simultaneously, corresponding to function keys F1 through F8. Additionally, labels can be defined for shifted function keys. If defined, these are displayed when the **Shift** key is pressed and correspond to shifted function keys F1 through F8. If defined, function key labels are displayed on the 25th line of the display screen.

Entering Data

Memory Pages

Data displayed on the screen is stored in the terminal's memory, which (for the HP 700/43) can be divided into four 24-line pages (default selection), two 48-line pages, a single page of 96 lines, or one 24-line page and one 72-line page.

The HP 700/41 has a single 24-line page of memory. The default page selection for the HP 700/43 is a single 24-line page also.

Windows

The terminal can be operated with its screen either split into two windows or, by default, as a single 24-line window. The number of lines in a window is selectable, from 1 to 24.

Window/Page Data Capacity

For the HP 700/41 terminal, which has a single 24-line page memory, adding additional data to a full window scrolls the top line off the top of the window and it is lost. This is also true when the HP 700/43 uses a single 24-line window.

For the HP 700/43 terminal using 48-line, 96-line, or 24-/72-line pages, data can be added without loss until the page is full. For example, using two 48-line pages, 48 lines of data can be entered before data is lost.

Printing

If you have a serial printer connected to your terminal, you can print data using the methods described here. Of course, the printer must be ready for operation and properly connected to the terminal. The terminal's setup must match the printer's requirements.

Printing the Screen Contents

Press the **Page Pr** key (**Shift** + **Copy Pr**). This causes the display contents to be sent to the printer.

Copy Print Mode

Copy Print Mode causes all data received from the computer to be both displayed on the screen and sent to the printer. "Cop" is displayed on the status line when Copy Print Mode is on. (Note that if the terminal is off line, the characters you type are sent both to the screen and to the printer.)

There are two ways to turn on Copy Print Mode. One way is to press the **Copy Pr** key. The other way is to select "Copy" in the "Print Mode" field of the Main Port and Printer Port Setup Menu.

To turn off Copy Print Mode, press **Copy Pr** again, or select "Off" for the Print Mode field. Pressing **Shift** + **Break** also turns off this print mode.

Transparent Print Mode

Transparent Print Mode causes all data received from the computer to be sent to the printer without being displayed on the screen. "Trn" is displayed on the status line when Transparent Print Mode is on.

To turn on and off Transparent Print Mode, set the "Print Mode" Setup field to "Transparent" and "Off", respectively. **Shift** + **Break** also turns off this print mode.

Bidirectional Mode (HP 700/43)

Bidirectional Print Mode causes all data received from the computer to be displayed, printed, and transmitted back to the computer. Data sent to the terminal from the auxiliary device is transmitted to the computer without being displayed. “Bdx” is displayed on the status line when this mode is on.

Data can be entered from the keyboard while the terminal is receiving data from the computer without losing or distorting data. Also, in Block Mode, transfer of a block of data to the computer can be initiated while data is being received from the computer.

This mode is turned on by selecting “BiDirect” in the “Aux Mode” field of the Auxiliary Port Menu.

To turn off Bidirectional Print Mode, select “Off” or another print mode in the “Aux Mode” field of the Auxiliary Port Menu.

Troubleshooting and Maintenance

Problems and Solutions

If you encounter a problem in using the terminal, it may be something that you can easily fix yourself. Read this chapter before calling for repair service.

CAUTION

Under no circumstances should you open your terminal to expose its internal circuitry. Only a qualified service engineer should perform maintenance procedures that require opening the terminal case.

Indications of problems are in bold type followed by possible solutions.

The power button is pushed in, but the display is blank.

- Press any key. If the screen saver feature has blanked the screen, this will restore the display.
- Brightness may be turned down. Adjust the brightness control.
- Turn the power off and on again. If you didn't hear the beep, make sure the power cord is plugged securely into the terminal and power outlet. Make sure the power outlet is on.

The screen goes blank while the terminal is on.

- The screen saver feature is probably on. This feature blanks the screen after a specified period of inactivity. Press any key to cause the display screen to come back on without any loss of data.

There is no response from the terminal when you press keys.

- If the message “Lock” is displayed on the status line, then the keyboard is locked. Press the **Break** key while holding down the **Shift** key (a “soft” reset). If that doesn’t work, press **Break** while holding down both the **Shift** and **Ctrl** keys (a “hard” reset).
- If the message “NoScr1” is displayed on the Status Line, press the **Scroll Lock** key.
- Press the **Insert** key. If “Ins” is displayed on the message line, then the keyboard is working. If not, make sure the keyboard cable is securely connected to the keyboard and terminal.
- Make sure the data communications cable to the main port is securely connected to the rear of the terminal.
- Go into Setup Mode and make sure the “Online” or “Offline” field of the Terminal Setup Menu is set to “On”.
- Go into Setup Mode and make sure that all the fields in the Printer or Auxiliary Port Setup Menu are set correctly for communicating with your computer.
- If you are using a modem, make sure it is working properly.

Characters you type are displayed twice.

- Go into Setup Mode and select “Full Duplex” in the “Communications” field of the Main Port and Printer Port Setup Menu.

The screen displays nonsense characters (garbage).

- Make sure the “Graphics Mode” field in the Terminal Setup Menu (HP 700/41) or the “Graph Mode” field in the System Setup Menu (HP 700/43) is set to “Off”.
- Make sure that all the fields in the Main Port and Printer Port (HP 700/41) or Auxiliary Port (HP 700/43) Setup Menus are set correctly for communicating with your computer.
- Ask a technician to make sure that the pin assignments of the data communications cable for your terminal are correct for your computer.

A “<” character is present next to “Fdx” or “Hdx” on the status line.

- The *CTS*, *DSR*, or *DCD* signal line into the main port may be low. If this condition cannot be changed at the computer, then:
 - For the HP 700/43, select “Ignore” for the “CTS”, “DSR”, and “CD” fields of the Main Port Setup Menu.
 - For the HP 700/41, have a technician disconnect these three lines in the main port cable.

4-2 Troubleshooting and Maintenance

The terminal doesn't receive data from the computer, doesn't send data to the computer, or both.

- Same action as above.

The printer attached to your terminal is not printing correctly.

- Make sure the printer is plugged in and powered on. If the printer doesn't power on, make sure the power outlet has power. (For instance, connect a lamp to the outlet and turn the lamp on.)
- Make sure the printer cable is connected securely to the terminal and the printer.
- Go into Setup Mode and make sure all the fields in the Main Port and Printer, or Auxiliary, Port Setup Menu are set correctly for communicating with your printer.
- Ask a technician to see if the pin assignments for the printer cable are correct.

Error codes 01, 02, or 03 (or 04, HP 700/43) are displayed at the bottom of the screen when the terminal is powered on.

- Try powering on the terminal again. If the condition persists, the terminal requires service by a qualified technician.

"Default configs used. Press RETURN to continue." is displayed at the bottom of the screen when the terminal is powered on.

- Non-volatile memory could not be accessed, so the terminal's default Setup values were invoked. Try powering on the terminal again. If the condition persists, the terminal requires service by a qualified technician.
- The computer is forcing the *DSR*, *DCD*, or *CTS* signal line low (false). If this cannot be changed at the computer, ask a technician to disconnect these three lines in the main port cable.

Preventive Maintenance

Regularly clean the display unit and keyboard to remove dust and grease. Dust lightly using a damp, lint-free cloth. (Paper towels are fine.) The cloth should be just damp enough to pick up dust. Avoid wiping dust or lint into the keyboard.

If smudges or fingerprints persist, use a mild solution of soap and water. Remember to wring the cloth thoroughly; otherwise, rubbing the dirty areas will drip water over the terminal. Avoid getting any liquid between the keys.

CAUTION

Never use petroleum-based cleaners such as lighter fluid, or cleaners containing benzene, trichloroethylene, dilute ammonia, ammonia, or acetone. These cleaners may harm the terminal's plastic surface.

A

Pin Assignment Connections

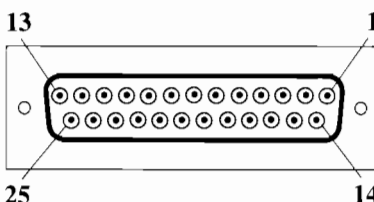


Figure A-1. Connector Pin Locations

Table A-1. Main Port Connector Pin Assignments

Pin	Signal	EIA	Direction
1	Frame Ground	AA	
2	Transmit Data (<i>TXD</i>)	BA	Out
3	Receive Data (<i>RXD</i>)	BB	In
4	Request to Send (<i>RTS</i>)	CA	Out
5	*Clear to Send (<i>CTS</i>)	CB	In
6	*Data Set Ready (<i>DSR</i>)	CC	In
7	Signal Ground	CF	
8	*Data Carrier Detect (<i>DCD</i>)	CD	In
20	Data Terminal Ready (<i>DTR</i>)		Out

* Note: These signals not required.

Table A-2. Printer or Auxiliary Port Connector Pin Assignments

Pin	Signal	EIA	Direction	Notes
1	Frame Ground	AA		
2	Transmit Data (<i>TXD</i>)	BA	Out	
3	Receive Data (<i>RXD</i>)	BB	In	
4	Request to Send (<i>RTS</i>)	CA	Out	always high
5	Clear to Send (<i>CTS</i>)	CB	Out	
7	Signal Ground	AB		
20	Data Terminal Ready (<i>DTR</i>)	CD	In	always high

Terminal Commands Summary

WY-50/30 Compatibility Mode

Data Entry Forms

Protect mode on	Esc &
Protect mode off	Esc '
BG Follows mode on	Esc)
BG Follows mode off	Esc (
Protect cursor column	Esc V
Block mode on	Esc B
Block mode off	Esc C

Editing

Turn insert mode on	Esc q
Turn insert mode off	Esc r
Insert line of spaces	Esc E
Insert one space character	Esc Q
Delete line	Esc R
Delete cursor character	Esc W

Clearing Data

Home cursor, turn off protect and background modes, and:	
clear screen to foreground nulls	Esc *
clear screen to foreground spaces	Esc +
clears to background spaces	Esc ,
Home cursor, replace all unprotected data with <c>; if background mode is on <c> is background	Esc .<c>
Clear unprotected characters to embedded attribute <attr>	Esc !<attr>
Home cursor, clear unprotected characters to foreground nulls	Esc :
Home cursor, clear unprotected characters to spaces; background if protect mode is on	Esc ; or CTRL Z
Clear from cursor to	
end of line with spaces	Esc T
end of window with spaces	Esc Y
end of line with nulls	Esc t
end of window with nulls	Esc y

Compatibility Modes

Set compatibility and enhanced modes	Esc e~<n>
<n> = space	Enhance mode on
!	Enhance mode off
"	WY-50/30
#	TVI 910+
\$	TVI 925E
%	ADDS Viewpoint A2
&	Hazeltine 1500
'	Qume 101
(	TVI-905
)	ADM 3A
*	ADM 5
+	TVI-950
.	ADM 31

Tabs

Tab cursor	Esc i or CTRL I
Backtab	Esc I
Clear all tabs	Esc 0
Set tab at cursor	
column. Enable	
Tab mode	Esc 1
Clear tab at cursor	Esc 2

Monitor Mode

Turn monitor mode on	Esc U
Turn monitor mode off	Esc X or Esc u

Keyboard Control

Unlock keyboard	Esc " or CTRL N or RESET
Lock keyboard	Esc # or CTRL O
Full Duplex mode on	Esc DF
Half Duplex mode on	Esc DH
Local Edit mode on	Esc k
Remote Edit mode on	Esc l

WY-50/30 Compatibility Mode (continued)

Display and Window Control

Autoscrolling mode on	Esc O
Autoscrolling mode off	Esc N
Split screen horizontally	Esc x 1 <line>
Protect and BG Follows modes turned off.	
Display memory cleared to foreground spaces	
Split screen horizontally	Esc x A <line>
Modes and display memory not affected	
Redefine screen as 1 window	Esc x 0
Protect mode turned off.	
BG Follows mode turned off if single page memory is used. Display memory cleared to foreground nulls	
Redefine screen as 1 window	Esc x @
Modes and display memory not affected	
Switch to other window	Esc J or Esc K
Activate upper window	Esc J or Esc c
Activate lower window	Esc }
Turn screen display off	Esc '8
Turn screen display on	Esc '9
Select 80 columns	Esc ';
Select 132 columns	Esc ';
Set scrolling speed, type	Esc '<c>
<c> = @ jump scroll	(default)
< smooth scroll	1 lps
=	2
G	3
>	4
?	10
Autopage Mode on	Esc d+
Autopage Mode off	Esc d*

Sending Data

Send unprotected line	Esc 4
Send unprotected page	Esc 5
Send line	Esc 6
Send page	Esc 7
Send character at cursor position	Esc M
Place STX at cursor position	Esc 8
Place ETX at cursor position	Esc 9
Send block of unprotected characters	Esc S
Send block of data	Esc s
Send terminal I.D.	Esc <space>

Printing

Copy Print mode on	DC2	CTRL R
All print modes off	DC4	CTRL T
Transparent Print mode on	CAN	CTRL X
Print formatted unprotected page		Esc @
Print unformatted page		Esc L or Esc p
Print formatted page		Esc P

Display Attributes

Use Table B-1 for <attr> (attribute) values.

Set display field attributes	Esc A <f> <attr>
<f> = 0 User data area	
1 Label line	
2 Status line	
3 Message line	
Set character display attribute	Esc G <attr>
Set display attributes	Esc ^ <n>
<n> = 2 Active to end of page	
3 Active to end of line	
Set protected character attr	Esc '<a>
<a> = 6 Reverse (700/43 only)	
7 Dim (default)	
A Normal	

Table B-1. Attribute Codes

	ATTRIBUTE SELECTION CHARACTER																																
	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	p	q	r	s	t	u	v	w	x	y	z	{		}	~	DEL	
Blank	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Blink	X	X			X	X		X	X		X	X		X	X		X	X		X	X		X	X		X	X		X	X		X	X
Reverse				X	X	X	X				X	X	X	X					X	X	X	X				X	X	X	X			X	X
Underline						X	X	X	X	X	X	X	X												X	X	X	X	X	X	X	X	X
Dim																		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

B-2 Terminal Commands Summary

WY-50/30 Compatibility Mode (continued)

Graphics Characters

Turn graphics mode on Esc H CTRL B
 Turn graphics mode off Esc H CTRL C
 Place graphic char <x>
 at cursor position Esc H <x>
 Use Table B-2 for graphics character substitution.

Cursor Control

Set cursor attributes Esc '<n>
 <n> = 0 off
 1 on
 2 steady box
 3 blinking line
 4 steady line
 5 blinking box
 Backspace, cursor left BS CTRL H
 Linefeed, cursor down LF CTRL J
 Cursor up VT CTRL K
 Cursor right FF CTRL L
 Carriage return CR CTRL M
 Cursor down, no
 scroll or wrap SYN CTRL V
 Cursor home RS CTRL ^ or Esc {
 Move cursor to column
 one next line, scroll US CTRL _
 Reverse linefeed Esc j

Table B-2. WY-50/30 Graphics Characters

<x>	Graphics Character	<x>	Graphics Character
P	+	X	+
Q	+	Y	+
R	+	Z	+
S	+		+
T	+	\	+
U	+		+
V	+	^	+
W	+	—	+

Cursor Addressing

<p> First page is 0, last is 3.
 <w> Top window is 0; bottom window is 1.
 Use tables B-3 and B-4.

Table B-3. Cursor Line Codes

Line	Code	Line	Code	Line	Code	Line	Code
1	Space	25	8	49	P	73	h
2	!	26	9	50	Q	74	i
3	"	27	:	51	R	75	j
4	#	28	:	52	S	76	k
5	\$	29	<	53	T	77	l
6	%	30	=	54	U	78	m
7	&	31	>	55	V	79	n
8	'	32	?	56	W	80	o
9	(	33	@	57	X	81	p
10	)	34	A	58	Y	82	q
11	*	35	B	59	Z	83	r
12	+	36	C	60	[	84	s
13	,	37	D	61	\	85	t
14	-	38	E	62	]	86	u
15	.	39	F	63	^	87	v
16	/	40	G	64	_	88	w
17	0	41	H	65	`	89	x
18	1	42	I	66	a	90	y
19	2	43	J	67	b	91	z
20	3	44	K	68	c	92	{
21	4	45	L	69	d	93	
22	5	46	M	70	e	94	}
23	6	47	N	71	f	95	~
24	7	48	O	72	g	96	DEL

WY-50/30 Compatibility Mode (continued)

Move cursor to	
page, line, column	Esc - <p> <l> <c>
window, line, column	Esc - <w> <l> <c>
line, column	Esc = <l> <c>
line	Esc [<l>
Move cursor to line, column	
(use ASCII digits)	Esc a <ll>R<cc>C
Read active window	Esc /
number, cursor address	Response: <w> <l> <c>
Read cursor address	Esc ?
(80 columns)	Response: <l> <c>
Read cursor address	Esc b
(use ASCII digits)	Response:
(80 or 132 columns)	<ll>R<cc>C

Function Key Labels

Define & display function key label on line 25	Esc z <I> <s> CR
<I> = label code from table B-6	
<s> = string (< = 8 chars in 80 col mode, or 7 chars in 132 col mode)	
Write string in label line	Esc z <I> <s> CR
<I> = label line (unshifted label line) (shifted label line)	
<s> = string (< = 78 chars in 80 col mode, or 130 chars in 132 col mode)	
Disable shifted label line	Esc z DEL

Programmable Keys

Use tables B-5 and B-6 for key codes <k>.

Define programmable key	Esc z <k> <s>DEL
<s> = string up to 64 characters	
Clear a programmable key	Esc z <k> DEL

Table B-4. Cursor Column Codes

Col	Code	Col	Code	Col	Code	Col	Code
1	Space	21	4	41	H	61	\
2	!	22	5	42	I	62	]
3	"	23	6	43	J	63	^
4	#	24	7	44	K	64	
5	\$	25	8	45	L	65	~
6	%	26	9	46	M	66	a
7	&	27	:	47	N	67	b
8	'	28	;	48	O	68	c
9	(	29	<	49	P	69	d
10	)	30	=	50	Q	70	e
11	*	31	>	51	R	71	f
12	+	32	?	52	S	72	g
13	,	33	@	53	T	73	h
14	-	34	A	54	U	74	i
15	.	35	B	55	V	75	j
16	/	36	C	56	W	76	k
17	0	37	D	57	X	77	l
18	1	38	E	58	Y	78	m
19	2	39	F	59	Z	79	n
20	3	40	G	60	[	80	o

WY-50/30 Compatibility Mode (continued)

Table B-5. Programmable Key Codes (Non-Function Keys)

Key I.D.	Key Code	Default String	Key I.D.	Key Code	Default String
ESC	Space	Esc	Keypad:		
Tab	!	HT	-	p	-
Backspace	"	BS	-	q	-
Del	#	DEL	-	r	-
Return	\$	CR	Enter	s	CR
Linefeed	%	LF	0	t	0
Keypad tab	&	HT	1	u	1
Cursor:			2	v	2
up	+	VT	3	w	3
down	,	LF	4	x	4
left	-	BS	5	y	5
right	.	FF	6	z	6
Home	/	RS	7	{	7
			8		8
			9	}	9

Table B-6. Programmable Key Codes (Function Keys)

Unshifted				Shifted			
Key I.D.	Key Code	Label Code	Default String*	Key I.D.	Key Code	Label Code	Default String*
f1	@	0	SOH@ CR	f1	`	P	SOH'CR
f2	A	1	SOHACR	f2	a	Q	SOHaCR
f3	B	2	SOHBCR	f3	b	R	SOHbCR
f4	C	3	SOHCCR	f4	c	S	SOHcCR
f5	D	4	SOHDCR	f5	d	T	SOHdCR
f6	E	5	SOHECR	f6	e	U	SOHeCR
f7	F	6	SOHFCR	f7	f	V	SOHfCR
f8	G	7	SOHGCR	f8	g	W	SOHgCR
f9	H	8	SOHHCR	f9	h	X	SOHhCR
f10	I	9	SOHICR	f10	i	Y	SOHiCR
f11	J	:	SOHJCR	f11	j	Z	SOHjCR
f12	K	;	SOHKCR	f12	k	[	SOHkCR
f13	L	<	SOHLCR	f13	l	\	SOHlCR
f14	M	=	SOHMCR	f14	m	]	SOHmCR
f15	N	>	SOHNCR	f15	n	^	SOHnCR
f16	O	?	SOHOCR	f16	o	_	SOHoCR

* NOTE: "SOH" and "CR", in the DEFAULT STRING column are control characters, with ASCII decimal codes 1 and 13, respectively.

ADM 3A and ADM 5 Compatibility Modes

means applies to ADM 5 only

Cursor Movement

Backspace, cursor left	BS	CTRL H
Linefeed, cursor down	LF	CTRL J
Cursor up	VT	CTRL K
Cursor right with wrap	FF	CTRL L
Carriage return	CR	CTRL M
Home cursor	RS	CTRL ^
Move cursor to <I> <c>	Esc =	<I> <c>

Clearing Data

Clear screen to spaces	CTRL Z
#Clear line	Esc T
#Clear display	Esc Y

#Video Attributes

#Set full intensity	Esc (
#Set half intensity	Esc)
#Toggle reverse video	Esc G

Keyboard Control

When the Keyboard Setup

Menu Lock or Gate field

is set to Lock:

unlocks keyboard	SO	CTRL N
locks keyboard		CTRL O
Sound the bell	BEL	CTRL G

The answerback message is specified in Setup.

Copy Print Mode

When the Keyboard Setup

Menu Lock or Gate field

is set to Gate:

enables Copy Print mode	SO	CTRL N
disables Copy Print mode		CTRL O

Answerback Message

Send answerback message	ENQ	CTRL E
-------------------------	-----	--------

ADM 31 Compatibility Mode

Data Entry Forms

BG Follows Mode on	Esc)
BG Follows Mode off	Esc (
Protect Mode on	Esc &
Protect Mode off	Esc '
Block Mode on	Esc B
Block Mode off (Character Mode on)	Esc C

Editing

Insert Mode on	Esc q
Insert Mode off	Esc r
Insert line of foreground spaces, if Protect Mode is off	Esc E
Delete line, if Protect Mode is off	Esc R
Insert one foreground space	Esc Q
Delete cursor character	Esc W
Clear unprotected characters from cursor to end of line (Protect Mode off) or end of field (Protect Mode on) to spaces. Foreground spaces if BG Follows Mode is off, background spaces if BG Follows Mode is on.	Esc T
Same as Esc T, but nulls instead of spaces	Esc t

Clearing Data

Home cursor and clear all pages to foreground nulls	Esc * or Esc :
Home the cursor and clear all unprotected (foreground) characters to spaces.	Esc + or Esc ;
Clear all data on current page to protected spaces	Esc ,
Clear unprotected characters from cursor to end of page(s) to spaces.	Esc Y
Same as Esc Y, but nulls instead of spaces	Esc y

Tabs

Tab cursor	Esc i or CTRL I
Backtab	Esc I
Typewriter Tab Mode on	Esc 3p
Clear all tabs, but not modulo tabs	Esc 0
Set tab at cursor column, enable Tab Mode	Esc 1
Clear tab at cursor column	Esc 2
Typewriter Tab Mode off and clear all modulo tabs	Esc 3z<space>
Set modulo tab stop interval	Esc 3<c>
<c> = Any one of the ASCII characters in table B-7.	

ADM 31 Compatibility Mode (continued)

Table B-7. ADM 31 Modulo Tab Mode Intervals

<c>	Mod. No.	<c>	Mod. No.	<c>	Mod. No.	<c>	Mod. No.
Space	0	8	24	P	48	h	72
!	1	9	25	Q	49	i	77
"	2	:	26	R	50	j	78
#	3	:	27	S	51	k	79
\$	4	<	28	T	52	l	76
%	5	=	29	U	53	m	77
&	6	>	30	V	54	n	78
'	7	?	31	W	55	o	79
(	8	@	32	X	56	p	80
)	9	A	33	Y	57		
*	10	B	34	Z	58		
+	11	C	35	[	59		
,	12	D	36	\	60		
-	13	E	37	]	61		
.	14	F	38	^	62		
/	15	G	39	_	63		
0	16	H	40	`	64		
1	17	I	41	a	65		
2	18	J	42	b	66		
3	19	K	43	c	67		
4	20	L	44	d	68		
5	21	M	45	e	69		
6	22	N	46	f	70		
7	23	O	47	g	71		

Monitor Mode

Monitor Mode on Esc U
 Monitor Mode off Esc X or Esc u

Keyboard Control

Lock keyboard Esc #
 Unlock keyboard Esc " or reset

Display Control

Auto Page Mode on Esc v
 Auto Page Mode off Esc w
 Jump page Esc J or Esc K

Datacomm

Toggles between Full and Half Esc D
 Duplex modes

Sending Data

Send unprotected line Esc 4
 Send unprotected page Esc 5
 Send line Esc 6
 Send page Esc 7
 Place STX character at cursor Esc 8
 position to mark the start
 of a block transfer

Place ETX character at cursor Esc 9
 position to mark the end
 of a block transfer

Send block of unprotected Esc S
 characters from STX
 to ETX

Send block of data between Esc s
 STX/ETX like Esc S, but
 with data sent and formatted
 the same as for Esc 7

Printing

Formatted print of unprotected data Esc @
 on page
 Formatted print of all data Esc P
 on page
 Print unformatted page Esc L or Esc p
 Copy Print Mode on Esc A2
 Transparent Print Mode on Esc A1
 Transparent Print Mode off Esc A0
 Both Transparent and Copy DC4 CTRL T
 Print Modes off

ADM 31 Compatibility Mode (continued)

Display Attributes

Set video enhancement attribute	Esc G <a>
<a> = 0 None	
1 Underline	
2 Blinking	
3 Underline and blinking	
4 Reverse	
5 Underline and reverse	
6 Reverse and blinking	
7 Underline and reverse	
8 Blank	
9 Blank	
A Blinking	
B Blank and blinking	
C Reverse	
D Blank and reverse	
E Reverse and blinking	
F Blank and reverse	

Cursor Movement

Backspace, cursor left	BS	CTRL H
Linefeed, cursor down	LF	CTRL J
Cursor up	VT	CTRL K
Cursor right	FF	CTRL L
Carriage return	CR	CTRL M
Cursor home	RS	CTRL ^
Move cursor to page <p>.		Esc -<plc>
line <l>, column <c>		
Move cursor to line <l>.		Esc = <lc>
column <c> in current page		
Read cursor address from either		Esc /
page		Response:
		<p><l><c>CR
<p> = 0	page 1	
1	page 2	
<l> = xx	line code (table B-3)	
<c> = xx	col code (table B-4)	
Read cursor address in current page	Esc ?	
	Response:	
	<l><c>CR	

Resets

Firmware or soft reset (Setup values remain the same)	Esc 0!
---	--------



ADDS Viewpoint A2 Compatibility Mode

Cursor Movement

Backspace, cursor left	BS	CTRL H
	NAK	CTRL U
Linefeed, cursor down	LF	CTRL J
Carriage return	CR	CTRL M
Cursor right	ACK	CTRL F
Cursor up	SUB	CTRL Z
Cursor home	SOH	CTRL A
Move cursor to line		CTRL K <l>
Move cursor to column		CTRL P <c>
Move cursor to line and column		Esc Y <l> <c>
Cursor on	ETB	CTRL W
Cursor off	CAN	CTRL X

Clearing Data

Clear with spaces		
entire display; home	FF	CTRL L
cursor		
from cursor to end		Esc K
of line		
from cursor to end		Esc k
of display		

Display Control

Set display attributes to normal (light on dark)	Esc b
Set display attributes to reverse	Esc d

Printing

Copy Print Mode on	DC2	CTRL R
Copy Print Mode off	DC4	CTRL T
Transparent Print Mode on		Esc 3
Transparent Print Mode off		Esc 4

Keyboard Control

Lock keyboard		Esc 5
	EOT	CTRL D
Unlock keyboard		Esc 6
	STX	CTRL B
Bell	BEL	CTRL G

Video Attributes

Set video background attribute		Esc 0 <attr>
<attr> = (a normal		
A dim		
Set tag bit	SO	CTRL N
Reset tag bit	SI	CTRL 0

Hazeltine 1500 Compatibility Mode

Cursor Movement

Cursor home		~ CTRL R
Cursor up		~ CTRL L
Cursor down		~ CTRL K
Cursor left	BS	CTRL H
Cursor right		CTRL P
Carriage return	CR	CTRL M
Linefeed	LF	CTRL J
Tab		CTRL I
(Use tables B-8 and B-9 for column and line codes for the following commands.)		
Move cursor to column, line		~ CTRL Q <c> <l>
Send cursor position		~ CTRL E Response: <c> <l> CR

Table B-8. Hazeltine 1500 Cursor Line Codes

Line	Code	Line	Code
1	`	13	j
2	a	14	m
3	b	15	n
4	c	16	o
5	d	17	p
6	e	18	q
7	f	19	r
8	g	20	s
9	h	21	t
10	i	22	u
11	j	23	v
12	k	24	w

Table B-9. Hazeltine 1500 Cursor Column Codes

Col	Code	Col	Code	Col	Code	Col	Code
1	`	21	t	41	(	61	<
2	a	22	u	42	)	62	=
3	b	23	v	43	*	63	>
4	c	24	w	44	~	64	?
5	d	25	x	45	.	65	@
6	e	26	y	46	-	66	A
7	f	27	z	47	.	67	B
8	g	28	{	48	.	68	C
9	h	29		49	0	69	D
10	i	30	}	50	1	70	E
11	j	31	~	51	2	71	F
12	k	32	DEL	52	3	72	G
13	l	33	space	53	4	73	H
14	m	34	!	54	5	74	I
15	n	35	"	55	6	75	J
16	o	36	#	56	7	76	K
17	p	37	\$	57	8	77	L
18	q	38	%	58	9	78	M
19	r	39	&	59	:	79	N
20	s	40	'	60	:	80	O

Clearing Data

Clear screen, home cursor	~ CTRL \
Clear foreground, home cursor	~ CTRL]
Clear to end of line	~ CTRL O
Clear to end of screen with foreground spaces	~ CTRL X
Clear to end of screen with background spaces	~ CTRL W

Editing

Insert line (character mode only)	~ CTRL Z
Delete line (character mode only)	~ CTRL S

Keyboard Control

Lock keyboard	~ CTRL U
Unlock keyboard	~ CTRL F
Bell	Bel CTRL G

Video Attributes

Background Mode on	~ CTRL Y
Foreground Mode on	~ CTRL _

QVT-101 Compatibility Mode

Data Entry Forms

Protect mode on	Esc &
Protect mode off	Esc '
BG Follows mode on	Esc)
BG Follows mode off	Esc (
Block mode on	Esc B
Block mode off	Esc C
Block line mode	Esc D

Clearing Data

Home cursor, turn off Protect and BG Follows modes, and:	
clear screen to foreground nulls	Esc *
clears screen to foreground spaces	Esc +
clears to background spaces	Esc ,
Home cursor, clear unprotected characters to foreground nulls	Esc :
Home cursor, clear unprotected characters to spaces; background if Protect mode is on	Esc ;
Clear from cursor to end of line with spaces	Esc T
end of window with spaces	Esc Y
end of line with nulls	Esc t
end of window with nulls	Esc y

Editing

Insert line of spaces	Esc E
Insert space	Esc Q
Delete line	Esc R
Delete cursor character	Esc W

Display Attributes

Set character display attribute	Esc G <attr>
Use Table B-1	

Printing

Copy Print Mode on	Esc @
Copy Print Mode off	Esc A
Transparent Print Mode on	DC2 CTRL R
Transparent Print Mode off	CTRL T
Print top to cursor	Esc N
Print cursor to end	Esc O
Print entire page	Esc P
Print line	Esc p

Graphics Characters

Select graphics character set	Esc S
Select ASCII character set	Esc %

Table B-10. QVT-101 Graphics Characters

ASCII Character	Graphics Character	ASCII Character	Graphics Character
a	␣	i	␣
b	␣	j	␣
c	␣	k	␣
d	␣	l	␣
e	␣	m	␣
f	␣	n	␣
g	␣	o	␣
h	␣		

Miscellaneous

Display status line	Esc }
Blank status line	Esc {
Restore active values from non-volatile memory	Esc !0
Set defaults	Esc !1
Save non-volatile memory	Esc !2
Monitor mode on	Esc U
Monitor mode off	Esc X or Esc u
Lock keyboard	Esc "
Unlock keyboard	Esc #
Sound bell	BEL CTRL G

Cursor Movement

Backspace, cursor left	BS CTRL H
Linefeed, cursor down	LF CTRL J
Cursor up	VT CTRL K
Cursor right	FF CTRL L
Carriage return	CR CTRL M
Cursor home	RS CTRL ^
Move cursor to column 1 next line, scroll	US CTRL _
Move cursor to line <l>, column <c>	Esc = <l> <c>
line	Esc [<l>
column	Esc] <c>
(use WY-50/30 table for line and column codes)	
Cursor position request	Esc ?
	Response: <l><c>CR
(Use WY-50/30 tables for line and col codes)	

QVT-101 Compatibility Mode (continued)

Tabs

Tab cursor	CTRL I
Backtab	Esc I
Set tab at cursor column	Esc I
Clear tab at cursor column	Esc 2
Clear all tabs	Esc 3

Program cursor key

<c>	=	1	up		
		2	down		
		3	left		
		4	right		
<s>	=	string up to 4 characters			

Esc M <c> <s>

Display Control

Toggle autoscroll on/off	Esc H
Set cursor attributes	Esc . <n>
<n> = 0 Off	
1 Blinking block	
2 Steady block	
3 Blinking underline	

Set display attributes to normal (light on dark)	Esc b
Set display attributes to reverse	Esc d

Sending Data

Send unprotected line		Esc 4	
Send unprotected page		Esc 5	
Send entire line		Esc 6	
Send page		Esc 7	
Send answerback message	ENQ	CTRL E	
Select send delimiter		Esc x<c>	
<c> = CTRL @	NUL		
CTRL C	ETX		
CTRL D	EOT		
CTRL M	CR		

Programmable Keys

Program function key	Esc <k> <d>
	<s> CTRL Y
<k> =	use table B-11
<d> =	1 host computer
	2 local
	3 both 1 and 2
	4 aux port
<s> =	string up to 72 characters

Table B-11. QVT-101 Programmable Key Codes

Unshifted			Shifted		
Key	<k>	Default String*	Key	<k>	Default String*
f1	1	SOH@CR	sf1	A	SOH'CR
f2	2	SOHACR	sf2	B	SOHaCR
f3	3	SOHBCR	sf3	C	SOHbCR
f4	4	SOHCCR	sf4	D	SOHcCR
f5	5	SOHDCR	sf5	E	SOHdCR
f6	6	SOHECR	sf6	F	SOHeCR
f7	7	SOHFCR	sf7	G	SOHfCR
f8	8	SOHGCR	sf8	H	SOHgCR
f9	9	SOHhCR	sf9	I	SOHhCR
f10	:	SOHICR	sf10	J	SOHiCR
f11	;	SOHJCR	sf11	K	SOHjCR
f12	<	SOHKCR	sf12	L	SOHkCR
f13	=	SOHLCR	sf13	M	SOHlCR
f14	>	SOHMCR	sf14	N	SOHmCR
f15	?	SOHNCR	sf15	O	SOHnCR
f16	@	SOHOCR	sf16	P	SOHoCR

* NOTE: "SOH" and "CR", in the DEFAULT STRING column are control characters, with ASCII decimal codes 1 and 13, respectively.

TVI-905, 910+ and 925E Compatibility Mode

#means does not apply to 910+
@ means applies to 905 only

Data Entry Forms

Protect mode on	Esc &
Protect mode off	Esc '
BG Follows mode on	Esc)
BG Follows mode off	Esc (
Block mode on	Esc B
Block mode off	Esc C

Clearing Data

Clear entire screen to foreground nulls, home cursor, and turn off Protect and BG Follows Modes	Esc *
Clear unprotected chars to foreground spaces (background spaces if BG Follows mode is on)	Esc + or CTRL Z or Esc ;
Home cursor and clear all unprotected chars to: background spaces nulls	Esc , Esc :
Clear unprotected chars from cursor to:	
end of line with spaces	Esc T
end of window with spaces	Esc Y
end of line with nulls	Esc t
end of window with nulls	Esc y
# Clear field	CTRL X
@ Clear entire screen to spaces, home cursor, turn off Protect and BG Follows Modes	Esc +

Keyboard Control

Unlock keyboard	Esc "
Lock keyboard	Esc #
Turn on edit mode	
Local	Esc k
Remote	Esc l
#Keyclick on	Esc >
#Keyclick off	Esc <

Display Control

Set display to normal (light on dark)	Esc b
reverse	Esc d
Set cursor attribute	Esc . <n>
<n> = 0 Off	
1 blinking block	
2 steady block	
3 blinking line	
4 steady line	

#Display off	Esc o
#Display on	Esc n
@ Autoscroll Mode on	Esc w
@ Autoscroll Mode off	Esc v

Sending Data

Send unprotected line	Esc 4
Send unprotected page	Esc 5
Send line	Esc 6
Send page	Esc 7
Send block of unprotected characters	Esc S
Send block of data	Esc s
Set page terminator EOD	Esc x 4 <cc>
Set line terminator EOL	Esc x l <cc>

Display Attributes

Set character display attribute (Use Table B-1.)	Esc G <attr>
--	--------------

Printing

Copy Print mode on	Esc @
Copy Print mode off	Esc A or Esc a
Transparent Print mode on	Esc `
#Print page	Esc P
#Print page and time of day	Esc L
#Set page printer terminator to character <c>	Esc p <c>
@Print unprotected formatted page	Esc P
@Print all unformatted	Esc L

@Graphics Characters

Turn on graphics mode	Esc \$
Turn off graphics mode	Esc %
Use Table B-12	

Table B-12. Televideo 905 Graphics Characters

ASCII Character	Graphics Character	ASCII Character	Graphics Character
A	␣	I	␣
B	␣	J	␣
C	␣	K	␣
D	␣	L	␣
E	␣	M	␣
F	␣	N	␣
G	␣	O	␣
H	␣		

Note: Either upper- or lower-case letters allowed.

TVI-905 910+ and 925E Compatibility Mode (continued)

Cursor Movement

Backspace, cursor left	BS	CTRL H
Linefeed, cursor down	LF	CTRL J
Cursor up	VT	CTRL K
Cursor right	FF	CTRL L
Carriage return	CR	CTRL M
Cursor down, no wrap	SYN	CTRL V
Cursor home	RS	CTRL ^
Move cursor to column 1 of next line, scroll	US	CTRL _
Move cursor to line <l>, column <c>		Esc = <l> <c>
Read cursor position		Esc ?

#Reverse linefeed
 #Move cursor to page <p>, line <l>, and column <c>
 #Read cursor page, line, column

Editing

Insert line	Esc E
Insert one space character	Esc Q
Delete line	Esc R
Delete cursor character	Esc W

Tabs

Typewriter tab	CTRL I
Field tab	Esc i
Backtab	Esc I
Set tab	Esc 1
Clear tab	Esc 2
Clear all tabs	Esc 3

Monitor Mode

Monitor mode on	Esc U
Monitor mode off	Esc X or Esc u
#Display control character <c>	Esc CTRL <c>

Programmable keys

Program function key	Esc <k> <dst> <s> CTRL Y
<dst> = 1	host computer
2	local
3	both 1 and 2
4	auxiliary port
<s> = string (up to 7 characters)	

Use Table B-11 for key codes <k> values.

Miscellaneous

DTR handshaking	SO	CTRL N
Xon/Xoff handshaking	SI	CTRL O
#Send terminal ID (TVS 925E CR)		Esc M
#Send terminal ID (TVS 905 CR)		Esc M
#Hard reset of the terminal		Esc ~ 0
(a) Restore active values from non-volatile memory		Esc ~ 1
(a) Reset function keys to defaults		Esc ~ 2
#Display message line		Esc g
#Blank message line		Esc h
#Write to message line		Esc f <str>CR
#Set time of day clock		Esc <space> 1 <m> <HH> <MM>
<m> = A for AM or P for PM		
<HH> = hours (2 ASCII digits)		
<MM> = min. (2 ASCII digits)		
#Read time of day clock		Esc <space> 2

TVI-950 Compatibility Mode

The following commands are available in TVI-950 Compatibility mode, in addition to many of the TVI-905, 910, and 925 commands.

Display Control

Turn on smooth scroll	Esc 8
Turn off smooth scroll	Esc 9
Set the number of lines per page (Multipage Mode must be on)	Esc \ <n>
<n> = 1	24 lines/page
2	48 lines/page
3	96 lines/page
Display next page	Esc K
Display previous page	Esc J

Cursor Movement

Autopage Mode on. Must have Multipage Mode on	Esc v
Autopage Mode off	Esc w
Move cursor to Page <p>, row <l>, and column <c>	Esc -<p> <l> <c>
<p> = 0	page 1
1	page 2
2	page 3
3	page 4
Read cursor position. <p> as defined for Esc -<p> <l> <c>	Esc \
	Response: <p> <l> <c> CR <p> as defined for Esc -<p> <l> <c>

TVI-950 Compatibility Mode (continued)

Editing

Redefine insert character to be <c>. Default is a space	Esc e<c>
Local Mode on	Esc c
Insert Mode on	Esc q
Replace Mode on, Insert Mode off	Esc r
Line Edit Mode on, Page Edit Mode off (default)	Esc O
Page Edit Mode on, Line Edit Mode off	Esc N

Datacomm

Half Duplex Mode on	Esc DH
Full Duplex Mode on	Esc DF
Select datacomm port parameters	Esc {<s> <p><l>

 = 0	9600 Baud
1	50
2	75
3	110
4	135
5	150
6	300
7	600
8	1200
9	1800
:	2400
:	3600
<	4800
=	7200
>	9600
?	19200
<s> = 0	1 stop bit
1	2 stop bits
<p> = 0	ignore parity
1	odd parity
3	even parity
5	parity = 1
7	parity = 0
<l> = 0	data length = 8 bits
1	data length = 7 bits

Aux Port Operations

Print current page to auxiliary port and display next page	Esc P or Esc L
Setup auxiliary port parameters , <s>, <p> and <l> are the same as for the Esc {<s><p><l> command	Esc }<s> <p><l>
Enable Bidirectional Aux Port Mode	CTRL R
Disable Bidirectional Aux Port Mode	CTRL T

Terminal ID

Send terminal identification <v> = x.x	firmware	Esc M
	version no.	Response: <v><n>
<n> = 1	24-line memory	
2	48-line memory	
3	96-line memory	

Sending Data

Reprogram [Send] key <k>
to initiate the sequence selected
by <e>

<k> = 1	[Send] key
2	shifted [Send] key
<e> = 4	Esc 4
5	Esc 5
6	Esc 6
7	Esc 7
S	Esc S
s	Esc s

Refer to "Sending Data" for
other Teletext terminals for
the escape sequence functions.

Select delimiting functions <f> for
<c1> and <c2> for use with the
[Send] key. <c1> and <c2> are
any ASCII characters, including
control characters, but
excepting NULL.

<f> = 0	start (<c1>) and end (<c2>) a field (defaults, FS NULL). For no field delimiters, set <c1> and <c2> to NULLs (Esc x0 NULL NULL)
1	start (<c1>) and end (<c2>) a line (default, US NULL)
2	start a protected field (default, Esc))
3	end a protected field (default, Esc (
4	end a text block (default, CR NULL)

Send status line followed by CR Esc Z1
Send message line followed by CR Esc Z0

C

International Keyboards

The following illustrations show the international keyboards.

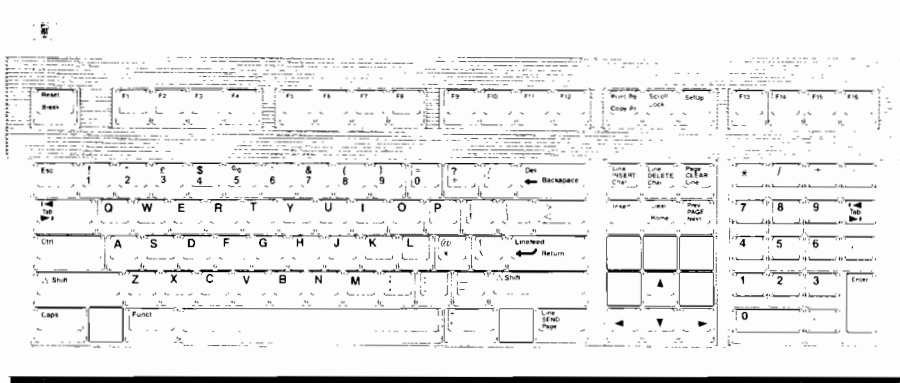


Figure C-1. United Kingdom Keyboard

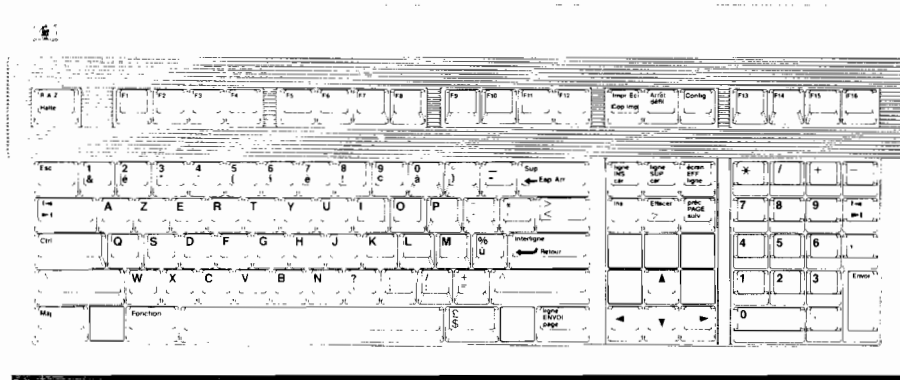


Figure C-2. French Keyboard

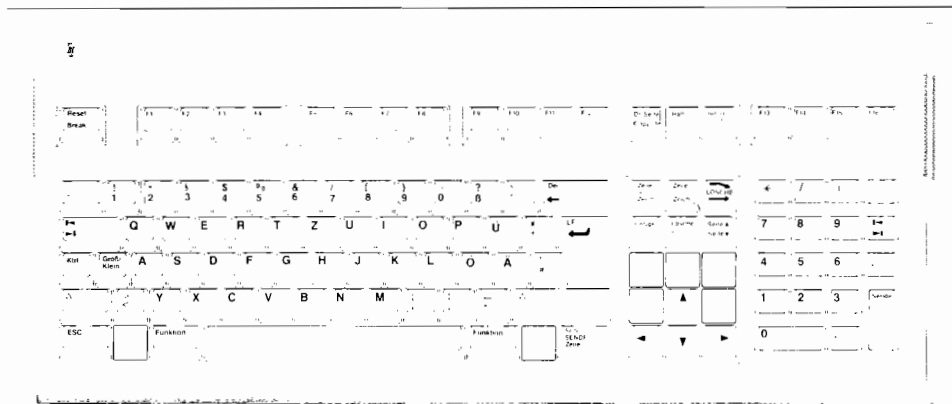


Figure C-3. German Keyboard

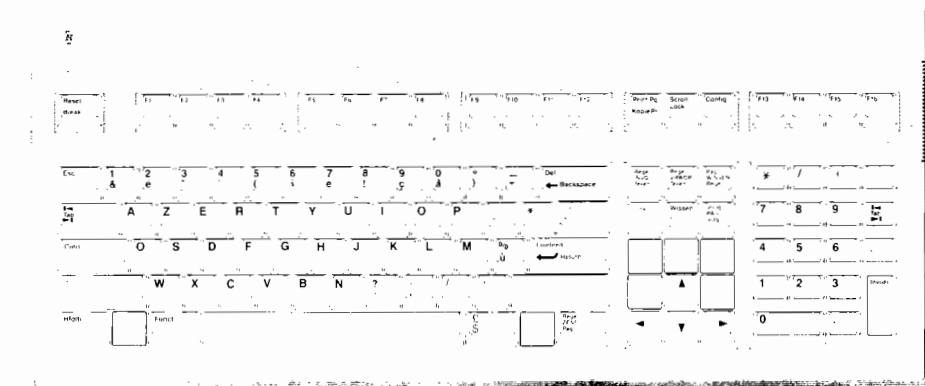


Figure C-4. Flemish Keyboard

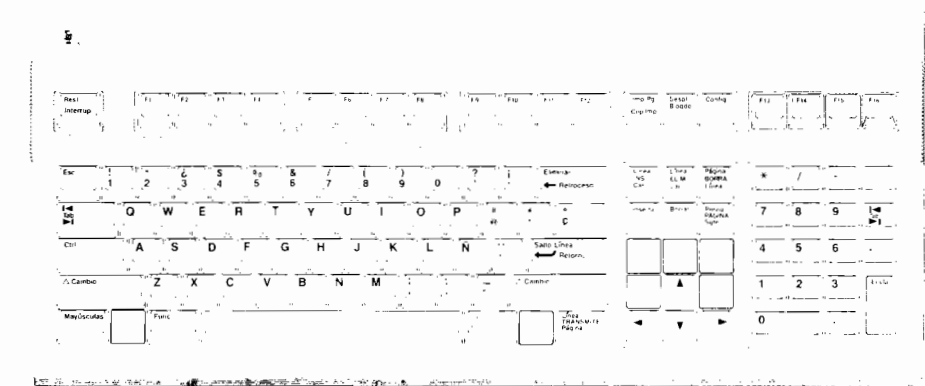


Figure C-5. Spanish Keyboard

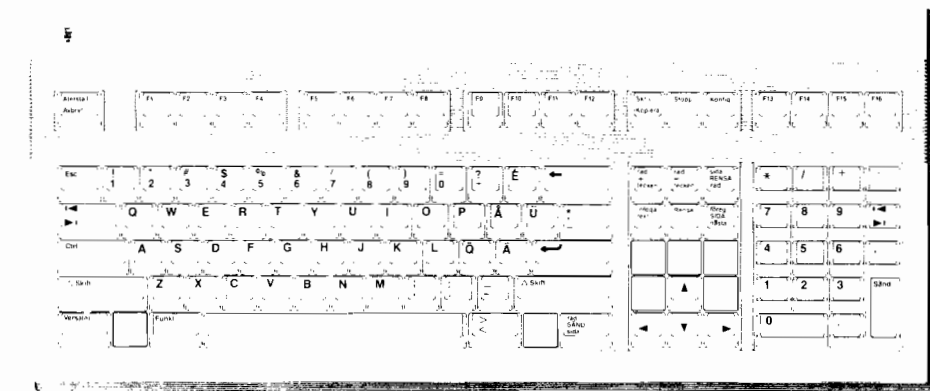


Figure C-6. Swedish Keyboard

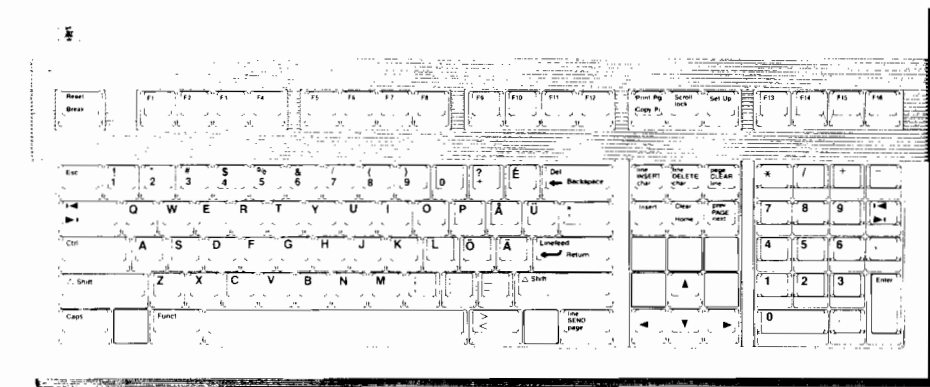


Figure C-7. Finnish Keyboard

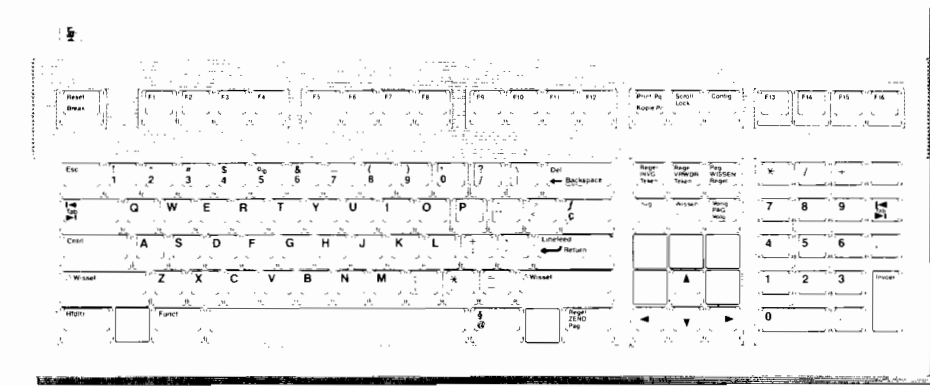


Figure C-8. Dutch Keyboard

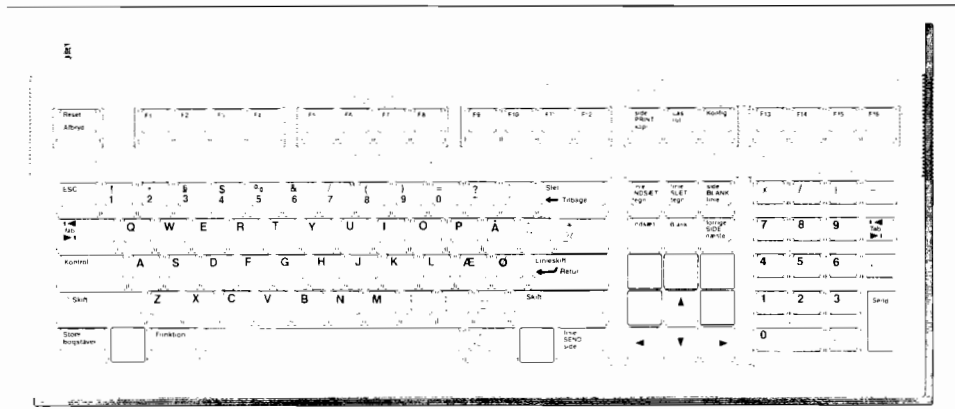


Figure C-9. Danish Keyboard

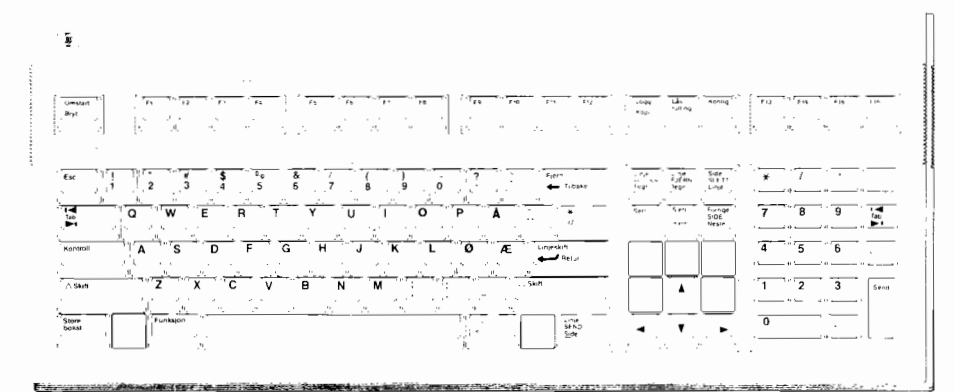


Figure C-10. Norwegian Keyboard

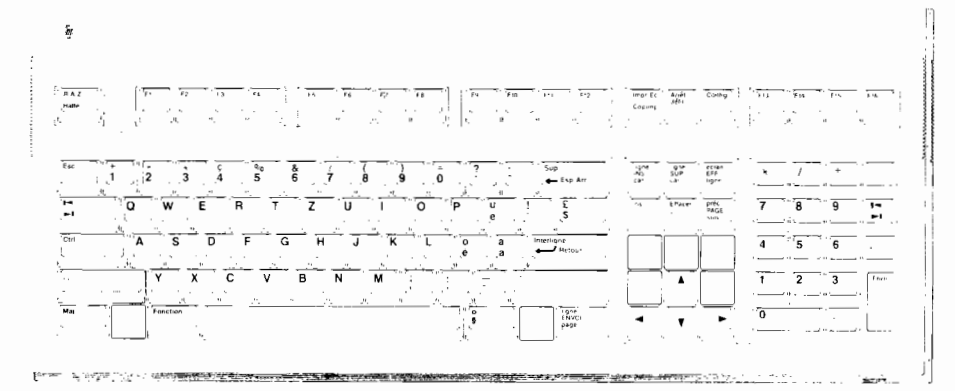


Figure C-11. Swiss French Keyboard

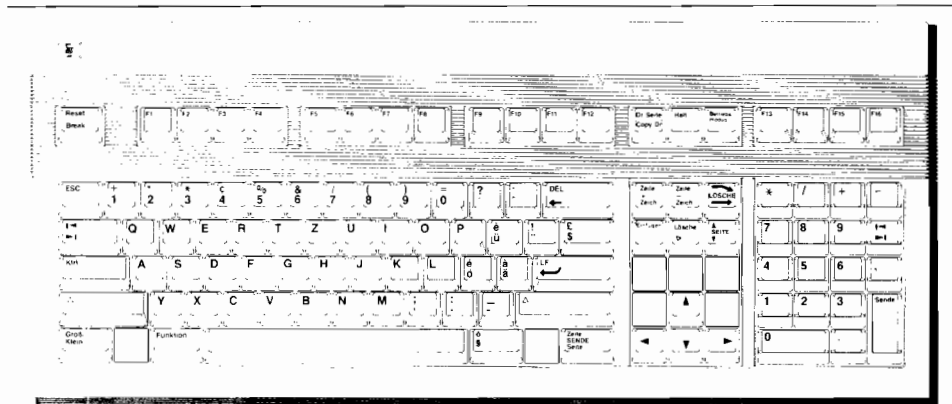


Figure C-12. Swiss German Keyboard

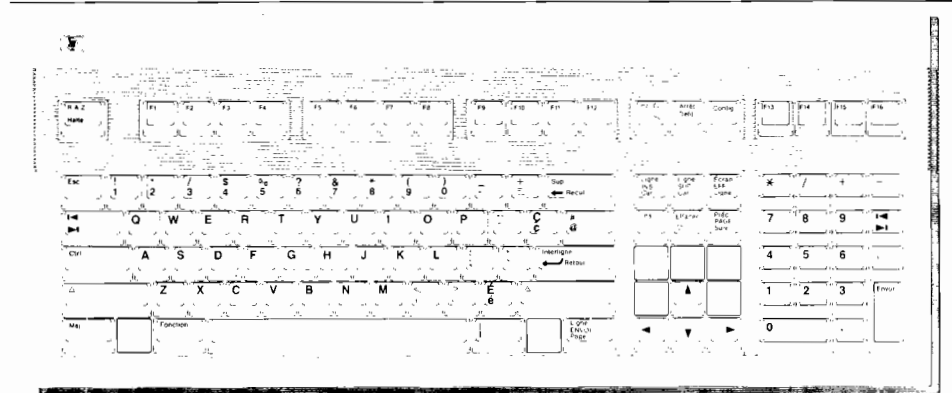


Figure C-13. French Canadian Keyboard

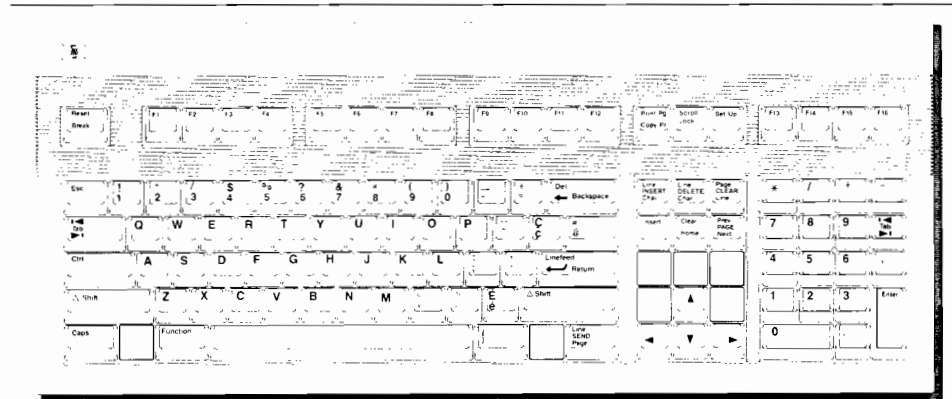


Figure C-14. English Canadian Keyboard

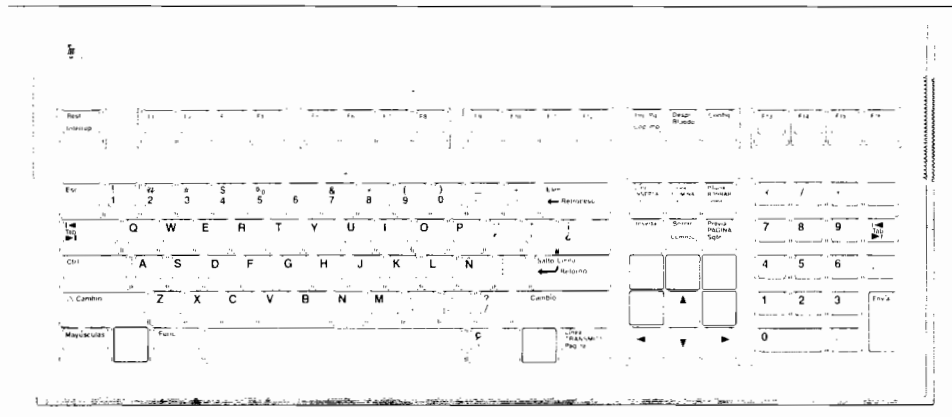


Figure C-15. Latin American Keyboard

Index

A

areas, screen 3-2
assignments, connector pin A-1

C

cabling 1-2
connectors, electrical 1-3
control
 brightness 1-4
 contrast 1-4
cursor 3-3

D

data
 entering 3-12
 capacity, window/page 3-12

F

features, terminal iv, v
field
 Attr Extent 2-10, 2-16
 Auto Linefeed 2-10, 2-17
 Auto Page 2-16
 Auto Repeat 2-21, 2-22, 2-26
 Auto Scroll 2-10, 2-17
 Auto Wrap 2-10, 2-17
 Aux Mode 2-23
 Baud Rate 2-19, 2-21
 Bgnd Attr 2-10, 2-16
 Block Mode 2-9, 2-17
 Block Term 2-11, 2-17

CD 2-22
Communication 2-19, 2-21
Compatibility 2-11, 2-16
CTS 2-22
Cursor Down 2-27
Cursor on/off 2-14
Cursor Type 2-14
Data Length 2-19, 2-21
DSR 2-22
Edit Keys 2-26
Enhance Mode 2-11, 2-17
EOM Char 2-11, 2-17
Graph Mode 2-10, 2-17
Handshake 2-19
Key Click 2-21, 2-26
Language 2-27
Lead-in 2-17
Leadin Char 2-11
Lock Enable 2-27
Lock or Gate 2-27
Margin Bell 2-27
Minute 2-9, 2-13
Monitor Line 2-22
Monitor Mode 2-10, 2-17
Multipage 2-16
Nation 2-21, 2-26
On Line 2-9
On/Off Line 2-14
Parity 2-19, 2-21
Print Mode 2-19
Protect Mode 2-10, 2-17
Screen Saver 2-9, 2-13
Screen Width 2-16
Smooth Scroll 2-9, 2-14

- Status Line 2-10, 2-14
- Stop Bit(s) 2-21
- Time:Hour 2-9, 2-13
- Xmit Pace 2-22
- fields
 - Keyboard Setup Menu 2-26
 - Main Port/Auxiliary Port Setup Menu 2-21
 - Main Port/Printer Port Setup Menu 2-19
 - System Setup Menu 2-16
 - Terminal Setup Menu 2-9, 2-13
 - User Setup Menu 2-9, 2-13

I

- inspection, visual 1-1
- installation 1-1

K

- keyboard 3-6
- keypad, numeric 3-11
- keys
 - editing 3-10
 - function 3-11
 - programmable 2-28
 - programming the 2-28
 - terminal control 3-7
 - typewriter 3-6

L

- line, status 3-3

M

- maintenance, preventive 4-4
- Menu
 - Function Keys Setup 2-32
 - Keyboard Setup 2-24
 - Main Port/Auxiliary Port Setup 2-20
 - Main Port/Printer Port Setup 2-18

- Programmable Keys Setup 2-29
- System Setup 2-15
- Terminal Setup 2-8, 2-12
- User Setup 2-8, 2-12
- messages, status line 3-4
- Mode
 - Bidirectional 3-14
 - Copy Print 3-13
 - Setup 2-1
 - Transparent Print 3-13

P

- pages, memory 3-12
- problems, troubleshooting 4-1

S

- screen
 - display 3-2
 - printing the 3-13
- Setup Menu
 - Function Keys 2-32
 - Keyboard 2-24
 - Main Port/Auxiliary Port 2-20
 - Main Port/Printer Port 2-18
 - Programmable Keys 2-29
 - System 2-15
 - Terminal 2-8, 2-12
 - User 2-8, 2-12
- setup menus
 - accessing the 2-5
 - function labels for 2-7
- Setup Mode
 - entering 2-3
 - exiting 2-4
 - status line in 2-2
- setup values, changing the 2-6

W

- windows 3-12

