



ALPHA MICRO

AM-62 TERMINAL OWNER'S MANUAL

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alpha micro

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SAFETY WARNING

Dangerous voltages are present when the terminal is on, and may remain after the power is off. Use caution when working on the internal electronics. Do not work alone.

The internal phosphor of the cathode ray tube is toxic. Use caution (safety goggles and gloves) whenever the cathode ray tube is handled. If the tube breaks, exposing skin or eyes to the phosphor, rinse the affected area with cold water and consult a physician.

The terminal power cable is supplied with a safety ground. Do not use the terminal with an ungrounded outlet.

Do not connect or disconnect the keyboard cable when the power is on; doing so may result in damage to the terminal that is not covered under the warranty.

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SECTION I

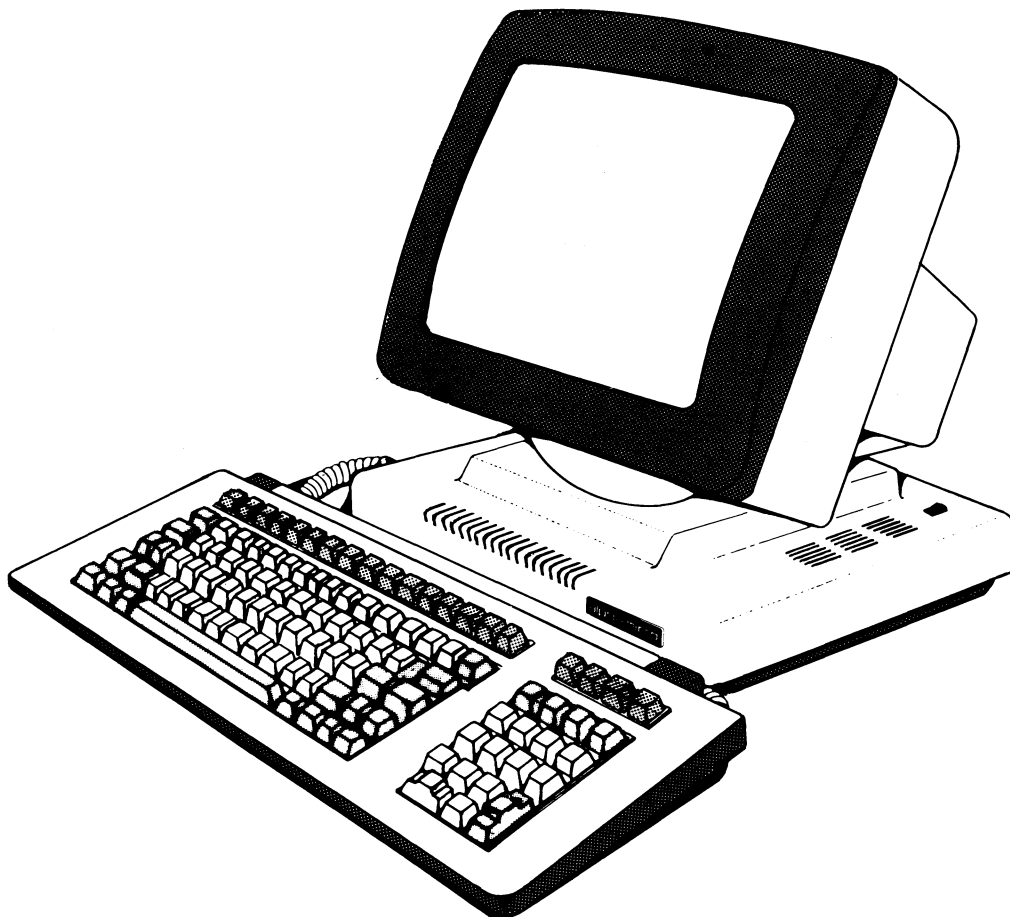
OVERVIEW

1.1 PURPOSE AND SCOPE

This manual provides the information necessary to operate the Alpha Micro AM-62 video display terminal while in Alpha Micro-compatible native mode. Included are installation and set-up instructions as well as explanations of all operating functions. The manual is intended to be useful to the terminal operator, and does not contain terminal programming information.

1.2 GENERAL DESCRIPTION

The Alpha Micro AM-62 is a desktop video display terminal (Figure 1-1) designed to function as an input/output peripheral for a computer system. Physical and functional descriptions are provided in the remaining paragraphs of this section.



FRONTISPIECE

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Figure 1-1. Alpha Micro AM-62 Video Display Terminal

1.2.1 Physical Description

The AM-62 consists of two major subassemblies: the keyboard and the display unit.

1.2.1.1 Keyboard

The keyboard provides the means for the operator to input information and commands to the computer system. The detached keyboard attaches to the display unit via a coiled cable extending to a maximum of six feet. This provides flexibility and comfort to the operator during use of the terminal.

The keyboard has a step-sculptured profile and adjustable slope to 7, 11, and 15 degrees. Key cap surfaces are nonglare with selected keys a darker shade for ease of access. Key legends are black.

1.2.1.2 Display Unit

The display unit consists of a molded plastic case which houses the electrical and electronic circuitry necessary to display and transmit information, and a cathode ray tube (CRT) for displaying the information. The display has a 14-inch (diagonal) viewing screen. The display unit is seated on a pedestal which allows the unit to tilt and swivel.

1.2.2 Display Terminal Features

Table 1-1 lists and describes the various features of the AM-62 terminal.

Table 1-1. Display Terminal Features

Features	Description
DISPLAY FORMAT	The viewing screen can display a page of 2,000 characters, formatted in twenty-four horizontal lines of eighty characters each. The status line, located at the bottom of the screen, may be selected for display by the user. The status line can provide a display of current operating and emulation modes, functions, and other useful information.

**Table 1-1. Display Terminal Features
(Cont.)**

Features	Description
CRT SAVER CIRCUIT	After about 10 minutes if no information is sent to the terminal by either the operator or host computer, all information displayed on the viewing screen disappears from the screen. The screen reactivates as soon as any key is pressed or when the user is prompted by the host computer. (NOTE: When the screen is deactivated, pressing the CAPS key once reactivates the screen display without sending any data to the terminal. Information previously displayed on the screen will reappear.) The purpose of the CRT saver circuit is to prolong the operating life of the CRT.
DISPLAY MEMORY	The AM-62 terminal can store one page (or screen) of data.
AUDIBLE KEY CLICK	An electronically-generated click (operator-selectable) occurs whenever a key is depressed. The audible key click feature may be turned on and off while in the Set-Up mode.
CHARACTER SET	The AM-62 can display 128 letters, numerals, and symbols. Included is the 96-character American Standard Code for Information Interchange (ASCII) set, 32 line graphic symbols and special word processing symbols, 32 control character facsimiles, and 25 national characters and symbols. In addition to the standard character set, United States/United Kingdom, there are five optional character sets for the following countries: Germany, France, Sweden, Norway, and Denmark.
CHARACTER PRESENTATION	Each alphanumeric or symbolic character is presented on the screen in a 7 by 9 dot matrix within a position field of nine dots horizontally by twelve dots vertically.

**Table 1-1. Display Terminal Features
(Cont.)**

Features	Description
CHARACTER VISUAL ATTRIBUTES	Each character can be assigned visual attributes from the host computer. Character visual attributes use up one space at initiation of attribute for control character (except for half-intensity), can be assigned to single characters or to fields of characters, and can be used in combination. Refer to Table 5-6 for a list of possible visual attributes and combinations thereof.
CURSOR	The cursor is the pointer-indicator used to designate the current character position; also defined as the position at which the next character received will be displayed. The cursor is readable and addressable.

1.2.3 Operating Modes

Operating modes are host computer- or operator keyboard-selectable and determine the effects of the terminal's functions. The various operating modes are discussed in Table 1-2.

Table 1-2. Operating Modes

Mode	Description
ALPHA MICRO COMPATIBLE MODE	The Alpha Micro AM-62 terminal has the ability to emulate a number of terminals. When the terminal is being used in its default mode as an Alpha Micro compatible terminal (that is, as a member of the Alpha Micro AM-60 family of terminals), it is in Alpha Micro compatible mode (native mode).
HALF DUPLEX/ FULL DUPLEX	In order to properly communicate with the host computer, a selection must be made between these two conversational modes (used in combination with the modes discussed below).
CHARACTER	This operating mode provides for the entry of data from the keyboard and for transmission of each character to the host computer immediately upon depression of a key. (Typically used when terminal is in Alpha Micro compatible mode.)

**Table 1-2. Operating Modes
(Cont.)**

Mode	Description
BLOCK	This operating mode provides for a block of data to be entered from the keyboard to the terminal display memory without immediate transmission to the host computer. This allows for editing of data locally before transmitting to the host. (Not normally used when terminal is in Alpha Micro compatible mode.)
LINE	This operating mode is the same as Block mode except that a line, not a block, of data may be edited and then transmitted to the host computer. (Not normally used when terminal is in Alpha Micro compatible mode.)
LOCAL	This operating mode provides for the local execution of terminal functions. Transmission between the terminal and the host computer is prohibited. (Not normally used when terminal is in Alpha Micro compatible mode.)
WRITE PROTECT	In Write Protect mode, characters are written in half intensity on the screen and will be protected when the terminal is in Protect mode. (Refer to paragraph 5.1.7 for special restrictions on using this mode.)
PROTECT	In Protect mode, areas previously written in Write Protect can be designated as protected against erasure, change, or transmission. These areas are displayed in half-intensity.
MONITOR	Monitor mode permits entry and display of all control characters to the screen. The displayed control characters will not be interpreted or executed. (Not used when terminal is in Alpha Micro compatible mode.)
FUNCTION KEYS	Sixteen function key sequences are available to transmit code sequences to the host computer.

**Table 1-2. Operating Modes
(Cont.)**

Mode	Description
AUTO SCROLL	Scrolling may be enabled and disabled by making the appropriate selection while in Set-Up mode. When scrolling is disabled, the cursor will wrap around to line 1 column 1 if a carriage return line feed or new line is issued while the cursor is on line 24.
SPLIT SCREEN	The AM-62 can be programmed by the user to operate in two different display formats. One of the display formats is the normal display window of 24 lines (plus one status line, if desired) of 80 characters each. The other display format is the horizontal split screen format with upper and lower display windows which scroll independently of each other.
SET-UP MODE	Set-Up mode allows the display and selection of the various operating functions and features of the AM-62 terminal. Refer to Section III for more instructions in using this mode.

Operating modes and their functions are explained in more detail in Section Five of this manual.

1.3 EMULATION CAPABILITIES

The AM-62 terminal is capable of emulating the functions, escape and control code sequences, operator-selectable options, and ASCII code structure of the terminals listed in Table 1-3.

Table 1-3. Emulated Terminals

Manufacturer	VDT Model
Alpha Micro Lear Siegler, Inc. TeleVideo Systems Inc.	AM-62 ADM5 TVI925

Some of the operational and special functions can be turned on and off when in the configuration Set-Up mode. Others can only be accessed under program control.

If you wish to write software programs to access terminal features when using the AM-62 terminal (configured for any of the possible emulations) on an Alpha Micro computer, we strongly urge you to use the standardized calls provided by the Alpha Micro computer operating system.

By using the operating system terminal interface rather than communicating directly with the terminal, your software is compatible with other software that runs on the Alpha Micro computer that makes use of specific terminal features, and will also be protected from problems caused by changes in the microcode of a specific terminal that is non-compatible or by a switch to another terminal by the user of your program.

If you wish to make use of terminal features under program control, you will need information on the operating system terminal handling features available under the AMOS/L operating system (refer to the AMOS/L Terminal Interface Programmer's Manual, DSS-10096-00. This document discusses the codes your program will send to the operating system to make use of terminal features such as protect mode, transparent print, special character display, keyboard lock, reverse video display, etc.

For information on terminal handling features for an operating system other than AMOS/L running on an Alpha Micro Computer, refer to the software documentation accompanying that operating system.

On the rare occasion in which your software must communicate directly with a terminal's microcode rather than using the Alpha Micro operating system terminal handling features (for example, if you need to define a terminal access code in your terminal driver that has not been provided by the Alpha Micro operating system), you will need to refer to the Engineering Specifications for the AM-62 terminal (PRB-00059-00). This document will also contain information on using the non-Alpha Micro compatible emulations offered by the AM-62 terminal.

1.3.1 Alpha Micro AM-62 Mode

The Alpha Micro AM-62 emulation mode is the native (default) mode.

1.3.2 TeleVideo 925 Mode

The TeleVideo 925 terminal mode is one of the emulations offered by the AM-62 terminal. To operate the AM-62 terminal as a TeleVideo 925 terminal, select TV925 in Set-Up mode. Visual attributes available in this emulation are:

Normal	Underline
Blank	Invis. Underline
Flash	Underline Flash
Invisible Flash	Invis. Underline Flash
Reverse Video	Underline Reverse
Invis. Reverse	Invis. Underline Reverse
Reverse Flash	Underline Reverse Flash
Invis. Reverse Flash	Invis. Underline Reverse Flash

TeleVideo 925 emulation allows the user to enter the time via an escape code sequence when the terminal is in Local mode (in addition to setting the time in Set-Up mode). To do so, enter:

ESC (space) 1n HH MM

where n = A (for a.m.), P (for p.m.)
 HH = Hours (must be a two-digit entry)
 MM = Minutes (must be a two-digit entry)

Example: To set the time to 3 o'clock in the afternoon,
 enter:

ESC (space) 1 P 03 00

1.3.3 Lear Siegler ADM5 Mode

The Lear Siegler ADM5 terminal may be emulated by selecting ADM5 in Set-Up mode. ADM5 emulation offers the selection of the auxiliary port as a gating function (AUX KB:AUX Selection in Set-Up mode enables this feature) or the selection of a keyboard lock/unlock command (AUX KB:KB in Set-Up mode enables this feature).

1.4 SPECIFICATIONS

The following is a list of operating characteristics and specifications for the AM-62 video display terminal.

Display Screen

14-inch nonglare screen
 Green or amber phosphor
 60 or 65 Hz refresh rate (operator-selectable)

Displayed Character Set

128 displayable characters

96 ASCII characters

32 line graphic characters and special word processing symbols

25 national characters

24 data lines; 25th status line

80 characters per line

2000 characters per screen

Character Typestyle

7 x 10 dot matrix in a 9 x 12 dot field

National Character Sets

United States/United Kingdom

German

French

Swedish

Danish

Norwegian

Visual Attributes

Flash

Blank (security)

Reverse video

Underline

Half-intensity

Combination attribute

Cursor

9 x 12 dot matrix

Block or underline

Flashing or Steady

No cursor

Readable and addressable

Cursor Control Keys↓, ↑, ←, →, Home, Tab, Back Tab, Return, New Line, Next Word,
Prev Word, Next Screen, Prev Screen**Edit Keys**

Line insert/delete

Word insert/delete

Char insert/delete

Edit Commands

Insert Character

Delete Character

Insert Line

Delete Line

Emulations

Alpha Micro AM-62

Lear Siegler ADM5

TeleVideo 925

Operating Modes

Full-duplex/half-duplex
 Character, Block, Line, Local
 Protect, write protect
 Function Key
 Monitor
 Auto Scroll
 Set-Up
 Special Graphics Mode

Primary Port and Printer Port**Data Transmission Rates****(Independently-Selectable)**

50, 75, 110, 135, 150, 300, 600, 1200
 1800, 2400, 3600, 4800, 7200, 9600,
 19,200 (19.2) bits per second.

Interfaces

Standard RS232C port
 RS232C printer port (bi-directional)

Printer Functions

Formatted print
 Transparent print
 Unformatted print

Operating Environment

Temperature: 32°F to 104°F (0°C to 40°C)
 Humidity: 5% to 95%

Physical Dimensions

	<u>Display Unit</u>	<u>Keyboard</u>
Width	13.5in (343mm)	19.0in (483mm)
Depth	13.5in (343mm)	7.5in (191mm)
Height	14.5in (369mm)	1.5in (38mm)
Weight	19.4lb (8.7kg)	2.0lb (.9kg)

Power Requirements

115 vac (+10%, -15%) at 0.5 amp
 230 vac (+10%, -15%) at 0.25 amp
 50/60 Hz (±3%), 55W

Transmission Protocol

XON/XOFF
 DTR High/DTR Low

Regulatory Compliance

UL (United States)
 FCC Class A (United States)

SECTION II

INSTALLATION

2.1 INTRODUCTION

The AM-62 video display terminal may be operated in a wide variety of physical environments. The remainder of this section provides explanations and diagrams to assist the user during installation of the AM-62.

2.2 Primary Port Interface

The AM-62 terminal uses a standard RS232C primary port interface to connect the terminal to a host computer or modem.

Table 2-1 provides interface pin signal assignments at the primary port.

Table 2-1. Primary Port Pin Signal Assignments

Pin No.	Signal Name	Mnemonic	Signal Direction
1	Chassis ground		
2	Transmit Data Output		From Terminal
3	Receive Data Input		To Terminal
4	Request-to-Send Output	RTS	From Terminal
5	Clear-to-Send Input	CTS	To Terminal
6	Data-Set-Ready Input (optional)	DSR	To Terminal
7	Signal Ground		
8	Data Carrier Detect	DCD	To Terminal
20	Data-Terminal-Ready Output	DTR	From Terminal

2.3 Interface Jumper Option

The AM-62 terminal offers an alternative to the standard primary interface. Table 2-2 lists and describes the jumper options available.

Table 2-2. Jumper Options

Jumper	Description
W23-W24	Allows Data Carrier Detect to monitor the readiness of an external modem.
W20-W21	<p>Data Terminal Ready. Output signal sent from the terminal to the host to enable communications.</p> <p><u>Options</u></p> <ol style="list-style-type: none"> 1. Cutting W23-W24 and connecting W24 and W25 allows Data Set Ready to monitor the readiness of an external modem. 2. Cutting W20-W21 and connecting W21 to W22 uses a Request to Send (RTS) signal to the computer to enable communications.

2.4 Installation Requirements

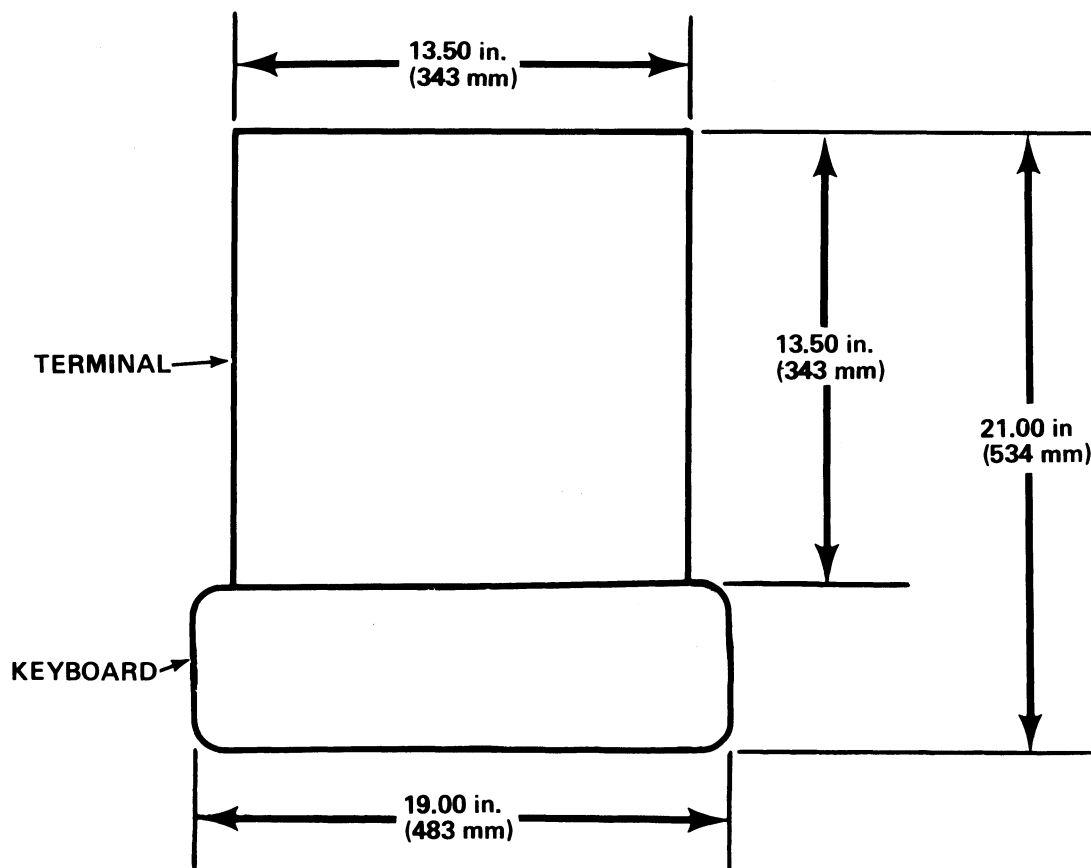
The AM-62 terminal is designed to be mounted on a flat, hard surface such as a desk or table top capable of supporting at least 22 pounds (10 kg). Ambient temperature of the operating environment must be within 32° F to 104° F (0° to 40° C) range.

CAUTION

Do not block any of the air vents on the unit. All air vents in the terminal case must be kept clear in order to provide proper cooling during operation.

2.4.1 Space Allocation

The detached keyboard permits considerable flexibility in positioning the unit for use. Figure 2-1 illustrates the terminal's overall dimensions as well as the minimum surface area required for installation.



6151

Figure 2-1. Overall Dimensions

2.4.2 Input Power

The AM-62 is configured at the factory for either 115 or 230 vac. Installation site power requirements for both versions are listed in Table 2-3.

Table 2-3. Input Power Requirements

Version	Phasing	Frequency	Current
115 vac +10% -15%	Single Phase	60 Hz $\pm 3\%$	0.50 A
230 vac +10% -15%	Single Phase	50 Hz $\pm 3\%$	0.25 A

WARNING

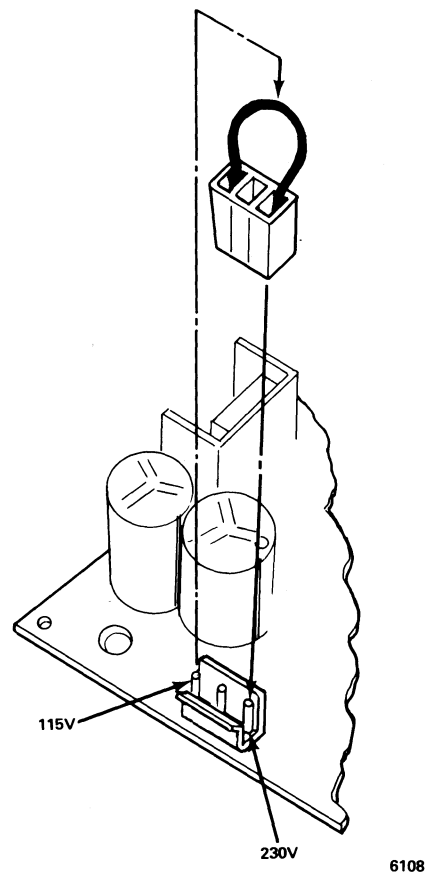
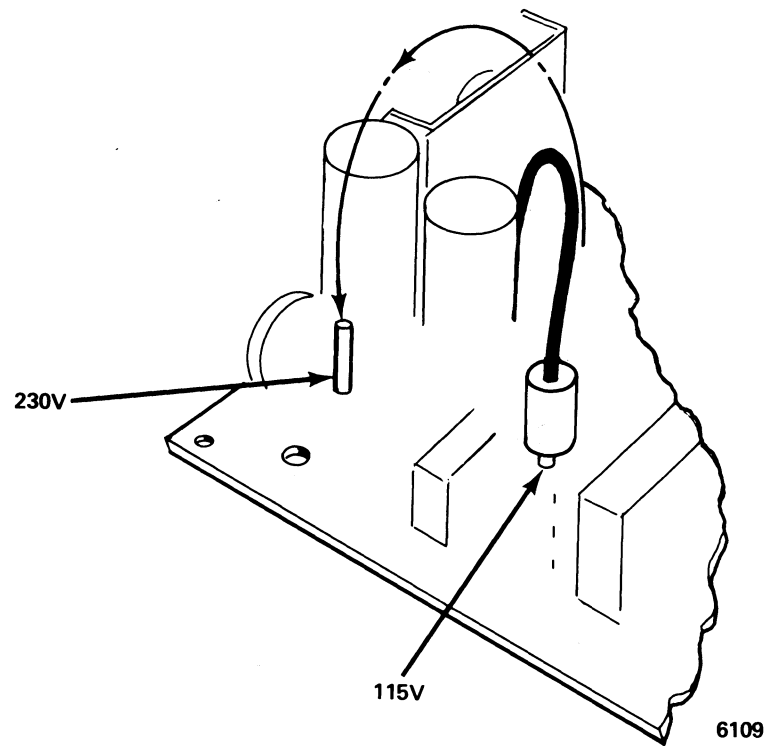
High voltage is present within the case when power is on. Remove the power cable from the ac receptacle before removing the top cover. Only authorized service personnel should open the case.

The AM-62 may be strapped for 115 or 230 vac. Figure 2-2 contains drawings showing the two versions of the strapping plug. Refer to these drawings when changing the voltage from 115 vac (applicable in the United States) to 230 vac (applicable outside the United States) or vice versa as needed.

NOTE

The fuse, located in fuseholder on back panel of the VDT (Figure 2-3), must be changed when the voltage is changed. For:

115 vac - Use a 2A fuse
230 vac - Use a 1A fuse

**Version 1****Version 2****Figure 2-2. Voltage Strapping Plug (Version 1 and Version 2)**

2.4.3 AC Power Cord and Plug

Each terminal is shipped with either a 115vac/60 Hz power plug (for use in the United States) or a 230vac/50 Hz power plug (for use outside the United States). AM-62 terminals in the United Kingdom and Australia may need customized power plugs to fit the receptacles in these countries.

WARNING

Electric shock may result if the power cord is connected to ac power when the plug is cut off. Be sure to disconnect the cord from ac power before customizing the power plug.

2.4.4 Interface Cable Connections

Figure 2-3 is a view of the back panel of the AM-62 video display terminal. Refer to this figure when attaching the primary port (to computer) and the printer port (to printer) interface cables.

NOTE

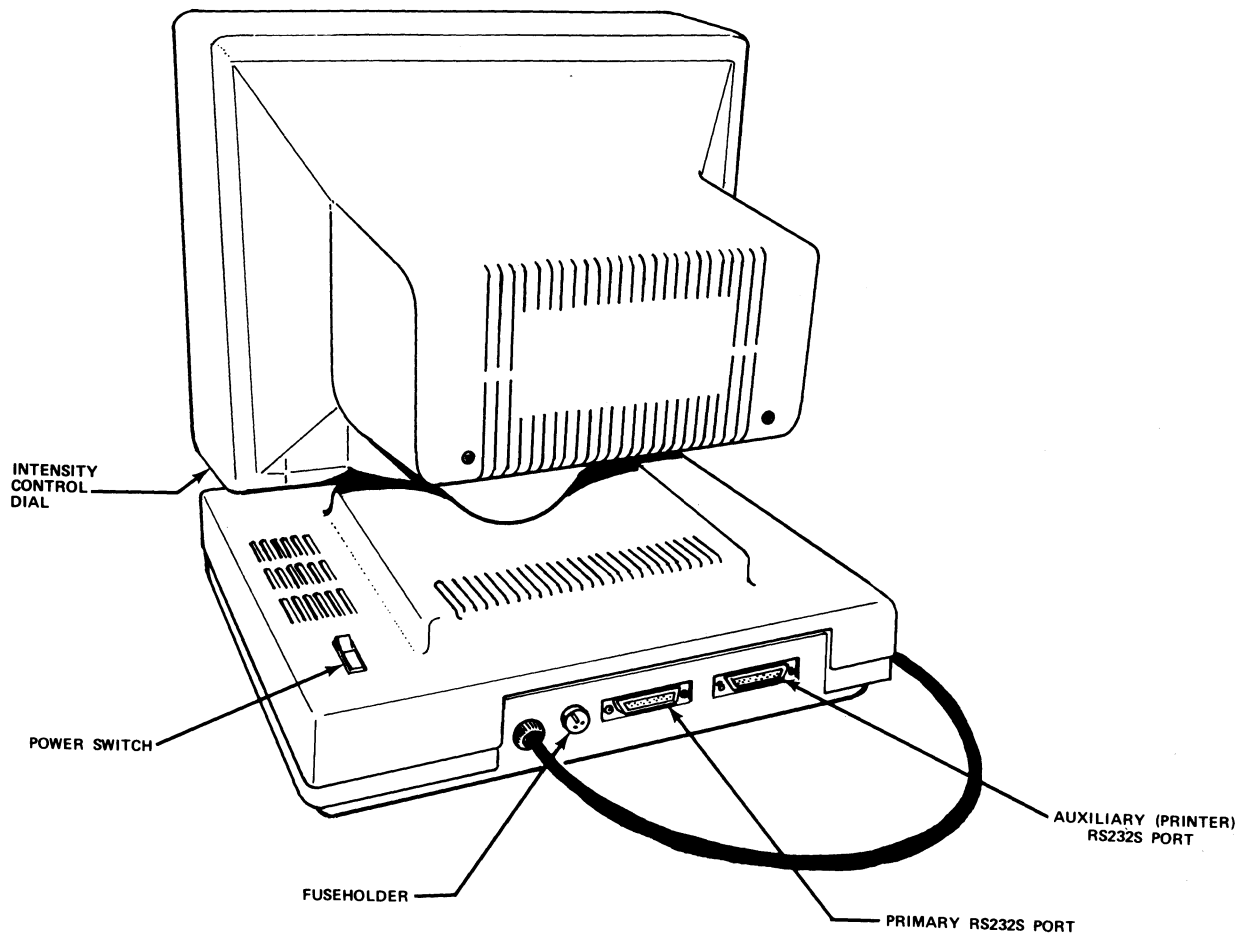
We recommend that the cable you use be shielded and jacketed. Using such a cable properly will help to minimize electromagnetic interference. Reducing such interference will not only protect your terminal from signal noise, but will also protect other devices near your terminal (e.g., a TV or radio) from interference radiated by an improperly shielded cable. For information on constructing a shielded cable, refer to the installation guide that accompanied your Alpha Micro Computer System.

2.4.5 Keyboard Port Connection

Figure 2-4 shows the location of the keyboard cable port. Refer to this figure when attaching the keyboard cable to the display terminal.

CAUTION

Do not connect or disconnect the keyboard to or from the display unit when power is on. Erratic performance may result.



BACK PANEL VIEW

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Figure 2-3. AM-62 Video Display Terminal (Back Panel View)

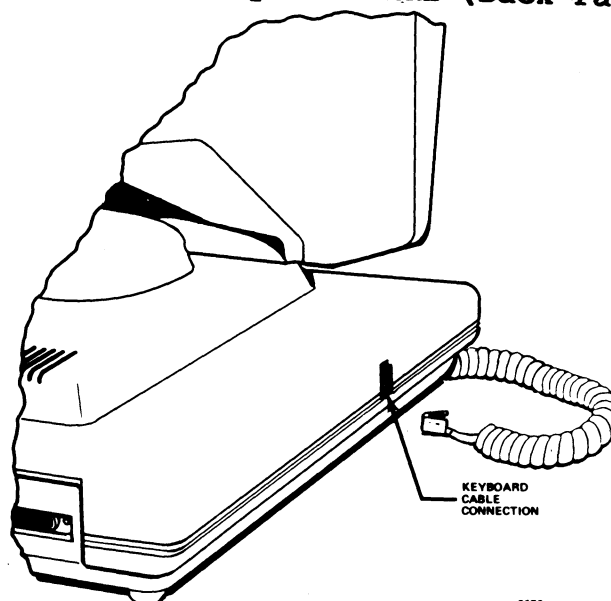


Figure 2-4. Keyboard Port on Display Terminal

8150

2.5 Power-on

To power-on the terminal:

1. Make sure all interface cables are connected properly to their respective ports (see 2.4.4 Interface Cable Connections and 2.4.5 Keyboard Port Connection).
2. Make sure the power cable is plugged into the proper outlet (see 2.4.3 AC Power Cord and Plug).
3. Within seconds, the unit undergoes its self-test.
4. After the self-test is completed, the cursor will display in the top left-hand corner of the screen.
5. Adjust the phosphor intensity by rotating the intensity control dial, located underneath the right-hand portion of the display unit.
6. The terminal is now ready to begin performing the operations described in the remaining sections of this manual.

2.6 SELF-TEST

The self-test feature is activated each time the terminal is powered on. The self-test operation checks the following:

CMOS RAM (a check sum of the terminal set-up information)
DATA RAM
DISPLAY RAM
ROM
VISUAL ATTRIBUTES (displays the test pattern)

Result of Terminal Self-Test

If any component errors are detected, a message will display on the lower portion of the screen. Possible error messages are:

CMOS CHECKSUM ERROR
DATA RAM ERROR
DISPLAY RAM ERROR
ROM ERROR

If any of the above error messages display on the screen:

1. Turn power "off," and then "on."
2. Verify any error messages.
 - a. If the error message is no longer on the screen, the terminal is ready to operate.
 - b. If the error message still displays on the screen, contact your dealer or an Alpha Micro AlphaSERV third party organization immediately. Do not attempt to correct the problem.

SECTION III

SETTING UP

3.1 SET-UP MODE

Operating parameters of the AM-62 terminal may be selected while in the Set-Up mode. When Set-Up mode is entered, status lines containing operating default parameters will display. This chapter provides instructions for entering Set-Up mode, viewing the status lines, and selecting and saving operating parameters. Refer to Appendix A for a summary of setup options and defaults.

3.2 Entering Set-Up Mode

To enter Set-Up mode, press CTRL/SHIFT/CANCEL. This signals to the host computer (XOFF or DTR Low) to stop transmission. When Set-Up mode is exited, an appropriate signal (XON or DTR High) will be sent to the host computer to resume transmission.

3.2.1 Viewing Status Lines

Once in the Set-Up mode, the first of five (5) status lines will appear on the 25th line of the display screen. Status lines will display in half-intensity reverse video unless the data area has been set to reverse video. In that case, the status lines will display in normal video at half-intensity. To display the next status line, press the cursor down key. This action will position the cursor at the first parameter of the next status line. Continue viewing succeeding lines in this manner.

To return to a previous status line, depress the cursor up key. This action will position the cursor at the first parameter of the previous status line. Continue viewing preceding status lines in this manner.

3.2.2 Modifying Parameters

To modify existing parameters, move the cursor to the parameter needing modification using either the cursor right key or the cursor left key. Once the cursor is at the parameter to be changed, press the space bar (or T key) to view the various selections in the status line area. When the appropriate selection appears on the status line, go on to the next parameter.

Modified parameters are in effect as long as the terminal maintains power. Once the terminal is reset or has loss of power, these modifications will be lost. To save modifications so that they are still in effect at terminal reset and power on/off, follow the instructions provided in the following paragraphs.

3.2.2.1 Saving Individual Modifications

Once the appropriate selection appears on the status line, save the selection by pressing SHIFT/S. Any of the parameters may be modified and saved in this manner except:

Protect ON/OFF
Auxiliary Port ON/OFF
Special Graphics mode ON/OFF
BIDIR ON/OFF

These parameters may not be saved and will default to their original setting at power-on. Once SHIFT/S is issued, the parameter is saved and the terminal exits the Set-Up mode. The screen displayed before entering Set-up mode will reappear.

3.2.2.2 Saving Multiple Modifications

Multiple changes on any or all status lines may be saved as well as individual changes. To do so, make the appropriate selections on any given status line. After all selections have been made, press SHIFT/S. This action causes all of the modified parameters of the current status lines to be saved and the terminal to exit the Set-Up mode.

Saved selections are stored in nonvolatile memory and will still be effective at power-off and power-on except for those mentioned in paragraph 3.2.2.1. To return all of the parameters to their default selections, press SHIFT/D. This action will also cause the terminal to exit the Set-Up mode. To recall the most current "saved" selections, press the SHIFT/R key. The most recent "saved" selections will be in effect and the terminal will exit the Set-Up mode.

3.3 EXITING THE SET-UP MODE

The Set-Up mode is exited when CTRL/SHIFT/CANCEL, SHIFT/S, SHIFT/R, or SHIFT/D keys are pressed. Exiting the Set-Up mode effects two reactions: the cursor returns to its original position on the screen displayed before entering Set-Up mode and a signal is sent to the host computer allowing the resumption of transmission.

3.4 STATUS LINE DISPLAY

Status lines consist of operational parameters and selections within those parameters. There are five different status lines (Figures 3-1 through 3-5).

3.4.1 Status Line 1

Figure 3-1 illustrates the default operating parameters and corresponding selections of Status Line 1. Parameters and selections are described in Table 3-1.

			AM-62	USA	KB ON		AUX OFF		PROT OFF	GFX OFF	DSR ON	01:01
CAPS	CHAR BLOCK LINE LOCAL	FDX HDX	TV925 ADM5	FRE UK GER SWD NOR DAN	KB LK	MON OFF MON ON	AUX ON TPR ON	NUMER FUNCT	PROT ON	GFX ON	DSR OFF	

6182-1

Figure 3-1. Status Line 1

Table 3-1. Status Line 1

Default Parameter	Other Parameters	Field Description
	CAPS	Applies to TeleVideo 925 emulation only. This field will not display for AM-62 or ADM5 emulation mode. At power on, the state of the CAPS LOCK key is retrieved from the parameter, LWCS/UPCS on Status Line 2. When set to UPCS, all alpha characters will display and transmit in their shifted state. The message, "CAPS," will display on the status line. When LWCS is selected, alpha characters will return to their unshifted state and the "CAPS" message will no longer display.
	CHAR BLOCK LINE LOCAL	This field is visible when in TV925 or ADM5 emulations only. Defines the mode of communication with the host computer. If communication with a host computer is not required, select Local.

Table 3-1. Status Line 1 (Cont.)

Default Parameter	Other Parameters	Field Description
	FDX HDX	This field will display only in TV925 or ADM5 emulation mode. Indicates the method of communication with a host computer. Set to FDX (full duplex) if the host computer is capable of echoing received character codes back to the terminal (normal Alpha Micro operations). Set to HDX (half duplex) if the host computer cannot echo received character codes back to the terminal.
AM-62	TV925 ADM5	Indicates the terminal model being emulated. Emulation models include TeleVideo 925, Lear Siegler ADM5 and the default native AM-62 emulation. Refer to Section VI for more information on emulation capabilities.
USA	FRE UK GER SWD NOR DAN	<p>The type of national character set used by the keyboard. Choices include: FRE -French, UK -United Kingdom, GER -German, SWD -Swedish, NOR -Norwegian, DAN -Danish.</p> <p>All AM-62 terminals are supplied with the standard U.S./U.K. keycap set. For those terminals requiring other keycap sets, refer to 4.2.2, "Character Set Group", for instructions in adapting the standard keycap set to the desired national character set.</p>
KB ON	KB LK	When set to LK (lock), the keyboard becomes inoperable.
	MON OFF MON ON	Applies to TV925 mode only. This field will not display for AM-62 or ADM5 emulation. Monitor mode is used to put the text and special control characters into screen memory for future printout through the printer port at a pre-selected baud rate.

Table 3-1. Status Line 1 (Cont.)

Default Parameter	Other Parameters	Field Description
AUX OFF	AUX ON TPR ON	Indicates the status of the printer port. AUX OFF- Data received from the host computer will be directed to the screen only. AUX ON - Data received from the host computer will be directed to both the screen and the printer port. TPR ON - Data received from the host computer will be directed to the printer port only.
	NUMER FUNCT	Applies only to TV925. This field will not display for AM-62 or ADM5 emulation mode. Indicates the status of the numeric keypad. When set to NUMER, the unshifted state of the numerical keys will respond as numbered keys while at the same time the shifted state of the numeric keys will operate as lead-in function keys. When set to FUNCT, numeric keys will respond only as lead-in function keys.
PROT OFF	PROT ON	Indicates whether write-protected characters are protected.
GFX OFF	GFX ON	Indicates whether or not graphics mode is in effect. Applies only to AM-62 emulation.
DSR ON	DSR OFF	Indicates the state of the DCD (Data Carrier Detect). This parameter can be changed to indicate the state of the DSR (Data Set Ready) by following the instructions in Table 2-2.
01:01		Indicates the cursor's current position on the screen (in rows and columns).

3.4.2 Status Line 2

Figure 3-2 illustrates the default operating parameters and corresponding selections of Status Line 2. Parameters and selections are described in Table 3-2.

	NORVID	BLK FLH	JUMP					KB CLICK	KB RPT	LWCS
STAT ON STAT OFF	REVVID	BLK CUR UDL FLH UDL CUR CUR OFF	SMOOTH	LN ATB PG ATB	DUPE LOCE	AUX/KB:KB AUX/KB:AUX		CLK OFF	RPT OFF	UPCS

6182-2

Figure 3-2. Status Line 2

Table 3-2. Status Line 2

Default Parameter	Other Parameters	Field Description
NORVID	STAT ON STAT OFF	Applies to TV925 and ADM5 emulations only. Indicates whether a status line is to be displayed during normal operation.
	REVVID	If REVVID is selected, the screen displays in reverse video with the status lines shown in half-intensity normal video.
BLK FLH	BLK CUR UDL FLH UDL CUR CUR OFF	Indicates the cursor configuration. Selections are: BLK FLH - Cursor appears as a flashing block. BLK CUR - Cursor appears as a steady block. UDL FLH - Cursor appears as a flashing underline. UDL CUR - Cursor appears as a steady underline. CUR OFF - No cursor will display.
JUMP	SMOOTH	Indicates the scrolling mode. When set to JUMP, the data is scrolled vertically on the screen as fast as it is received from the host computer. When set to SMOOTH, the data is scrolled vertically on the screen, one scan line at a time.

Table 3-2. Status Line 2 (Cont.)

Default Parameter	Other Parameters	Field Description
KB CLICK	LN ATB PG ATB	Applies to TV925 only. This field will not display for AM-62 or ADM5 emulations. A selection of "LN ATB" will cause any visual attribute(s) selected to affect one line. The other selection, "PG ATB" will cause the attribute(s) to affect an entire page. For example, if the attribute, underline, was activated and "PG ATB" was selected, then all data displayed on the screen (page) would be underlined. AM-62 uses page attributes only.
	DUPE LOCE	Applies to TV925 only. This field will not display for AM-62 or ADM5 emulation modes. This parameter designates the communications mode of edit keys with the host computer. DUPE - Codes will be transmitted to the host computer. (Normal Alpha Micro operation). LOCE - Editing is done locally and will not transmit any codes to the computer.
	AUX/KB:KB AUX/KB:AUX	Applies only to ADM5 emulation. This field will not display for AM-62 or TV925 emulation modes. Selection of: AUX/KB:KB - Locks and unlocks the keyboard when a CTRL/N (locks) or CTRL/O (unlocks) is issued. AUX/KB:AUX - Enables and disables the auxiliary port as a gating function when a CTRL/N (enables) or CTRL/O (disables) is issued.
	CLK OFF	When KB Click is designated, an electronically synthesized click sounds whenever a key is pressed. Set to "CLK/OFF" if click is not desired.

Table 3-2. Status Line 2 (Cont.)

Default Parameter	Other Parameters	Field Description
KB RPT	RPT OFF	Repeating keys will repeat when depressed for any length of time if KB RPT is selected. The keys will not repeat if RPT OFF is selected. Keys that will never repeat are: <div style="display: flex; justify-content: space-between;"> <div>CTRL CAPS LOCK SHIFT PRINT FUNCT</div> <div>HELP RUBOUT EXEC HOME PREV SCREEN</div> </div>
LWCS	UPCS	Indicates the shift state of alpha keys at power up. LWCS - Indicates the default lower case letters. UPCS - Indicates upper case letters. If UPCS is selected, then the message "↑", will display in the last position of Line 25.

3.4.3 Status Line 3

Figure 3-3 illustrates the default operating parameters and corresponding selections of Status Line 3. Parameters and selections are described in Table 3-3.

TIME AM 08:00	SAV ENB		SCROLL ON		WRAP ON	BELL OFF	CR=CR
TIME PM 08:00	SAV OFF		SCROLL OFF		WRAP OFF	BELL ON	CR=CRLF

6182-3

Figure 3-3. Status Line 3

Table 3-3. Status Line 3

Default Parameter	Other Parameters	Field Description
TIME AM 08:00	TIME PM 08:00	Real time indication. At initial power on, an internal 12-hour clock will begin measuring the time of day starting at its default 08:00 AM setting. To alter this setting, press the right cursor key to the "08" (hours) setting and depress the space bar until the correct hour(s) display. To change the minutes, press the cursor right key to the "00" (minutes) setting and depress the space bar until the correct number of minutes are displayed.
SAV ENB	SAV OFF	If "on", this parameter activates the CRT saver feature. In other words, if the terminal is left "on" with data displayed on the screen; that data will disappear after a period of 10 minutes in order to prolong the life of the video display. Pressing the CAPS LOCK key will cause the display to reappear. SAV OFF disables this feature.
SCROLL ON	SCROLL OFF	Indicates the terminal's scrolling status. SCROLL ON - Causes all data lines to move up one line when line 24 is exceeded in order to make room for the next line. SCROLL OFF - Data lines will remain stationary when data entered exceeds line 24. Exceeding data will cause cursor to return to the Home position and overwrite existing lines.

Table 3-3. Status Line 3

Default Parameter	Other Parameters	Field Description
WRAP ON	WRAP OFF	If cursor is at column 80 and data is entered, WRAP ON will cause the cursor and exceeding data to wraparound to the start of the next line. If WRAP OFF is selected, cursor will not move at column 80.
BELL OFF	BELL ON	If "on", a bell sounds when the cursor reaches column 72. This feature acts as an indication of the right margin when entering data.
CR=CR	CR=CRLF	Indicates terminal response to a carriage return received from the keyboard or host. CR=CR - Cursor will move to column 1 of the same line when a carriage return is executed. CR=CRLF - Cursor will move to column 1 of the next line when a carriage return is executed.

3.4.4 Status Line 4

Figure 3-4 illustrates the default operating parameters and corresponding selections of Status Line 4. Parameters and selections are described in Table 3-4.

HOST 9600	DTR	AUX 9600		BIT 8=0	STOP 1	PAR OFF	NO PAR CHK	FREQ 80
19.2	DTR-XON	19.2	BIDIR ON	BIT 8=1	STOP 2	PAR ODD	PAR CHECK	FREQ 65
50	MODEM	50	BIDIR OFF	7 BITS		PAR EVEN		
75	XON/XOFF	75				PAR=1		
110		110				PAR=0		
135		135						
150		150						
300		300						
600		600						
1200		1200						
1800		1800						
2400		2400						
3600		3600						
4800		4800						
7200		7200						

6182-4

Figure 3-4. Status Line 4

Table 3-4. Status Line 4

Default Parameter	Other Parameters	Field Description
HOST 9600	19.2 50 75 110 135 150 300 600 1200 1800 2400 3600 4800 7200	Indicates the rate of transmission (in bits per second) of data sent between the terminal and the host computer.
DTR	DTR-XON MODEM XON/XOFF	Indicates the transmission protocol. Selections are: DTR - Data Terminal Ready only. (Normal Alpha Micro operation) DTR-XON - Data Terminal Ready and XON/XOFF protocol. MODEM - Modem transmission. XON/OFF - XON/XOFF protocol only.
AUX 9600	19.2 50 75 110 135 150 300 600 1200 1800 2400 3600 4800 7200	Defines the rate of transmission (in bits per second) data is sent through the printer port.
	BIDIR ON BIDIR OFF	Applies to TV925 only. Indicates whether the direction of data transmission from the printer port to the host computer is enabled. If BIDIR ON is selected, the print information will be bidirectional.
BIT 8=0	BIT 8=1 7 BITS	Indicates the data word configuration and the contents of Bit 8 (Bit 8=0 for normal Alpha Micro operation).

**Table 3-4. Status Line 4
(Cont.)**

Default Parameter	Other Parameters	Field Description
STOP 1	STOP 2	Indicates the stop bit configuration. (Stop 1 for normal Alpha Micro operation.)
PAR=OFF	PAR ODD PAR EVEN PAR=1 PAR=0	Indicates the type of parity applicable to each data word (PAR=OFF for normal Alpha Micro operation).
NO PARCHK	PAR CHECK	If the terminal, when receiving a data word, requires a parity check for compatibility with the host computer, select PAR CHECK (NO PARCHK for normal Alpha Micro operation).
FREQ 60	FREQ 65	Indicates the refresh rate of the terminal. Select: FREQ 60 - When the terminal being operated is in a 60 Hz line power area. FREQ 65 - When the terminal being operated is in a 50 Hz line power area (eliminates flicker and ambient magnetic field interference).

3.4.5 Status Line 5

Figure 3-5 illustrates the default operating parameters and corresponding selections of Status Line 5. Parameters and selections are described in Table 3-5. This status line applies to TeleVideo 925 emulation and ADM5 emulation only and will not display when in AM-62 emulation mode.

HEOL = ^ _	HEOM = ^ M	AEOM = ^ F	HERE IS =
------------	------------	------------	-----------

6182-5

Figure 3-5. Status Line 5

Table 3-5. Status Line 5

Default Parameter	Other Parameters	Field Description
HEOL = ^ _		Applies to TV925 and ADM5 only. Indicates the host's end of line terminator. The default setting is a US (unit separator, 1FH Hex). Any two characters may be entered.
HEOM = ^M		Applies to TV925 and ADM5 only. Indicates the host's end of message terminator. The default setting is a CTRL/M (carriage return). Any two characters may be entered.
AEOM = ^F		Applies to TV925 only. Indicates the auxiliary port's end of message terminator. The default setting is CTRL/F (ACKnowledge). Any two characters may be entered.
Here Is =		Applies to ADM5 only. This is a 20-character field available to the operator for entering a message that specifically identifies a particular terminal to the host computer. In this field, the first key entered and the last key entered must be the same characters in order to act as message delimiters (delimiters are not transmitted or displayed). Use a cursor key to exit this field before performing a Save function. Issuing a CTRL/E will cause the message to be transmitted to the host computer.

SECTION IV

TERMINAL CONTROLS

4.1 DISPLAY UNIT CONTROLS

There are two operator controls located on the exterior of the video display unit: the power switch and the intensity control dial.

4.1.1 Power Switch

The power switch is located to the right and towards the back of the unit when facing the screen. The switch is a rocker-type, and is designed to be operated by touch. A short time after the power is switched on, an alarm (beep) will sound indicating the completion of the self-test, the cursor will appear on the screen (unless cursor off was selected in Set-Up mode) at the Home position and the unit will be ready for use.

4.1.2 Intensity Control Dial

The intensity control dial is positioned underneath the right-hand portion of the screen. Adjust the intensity when sufficient video is displayed on the screen to establish the most comfortable level of intensity/ contrast.

CAUTION

Do not leave intensity at a high level for long periods of time; to do so may wear the phosphor-coated screen unnecessarily. The CRT Saver Circuit, which is operator selectable while in the Set-Up mode, blanks the display of on-screen information after a period of about 10 minutes, if the terminal is turned on but is not being used.

4.2 KEYBOARD CONTROLS

Keyboard controls, as shown in Figures 4-1 and 4-3 through 4-6, can be divided into five groups: Character Sets, Numeric Keypad, Cursor Control Keys, Edit Keys, and Control keys.

This section contains descriptions of what functions the keys on the AM-62 keyboard are intended to perform. Please note that these descriptions explain the functions performed by the keys IF THE SOFTWARE BEING USED SUPPORTS THE USE OF THOSE KEYS. For example, the operating system might not support the use of the NEXT SCREEN key to show another screen of data; however a word processing package on

the computer will support the use of that key. Refer to the documentation accompanying a particular software package to see how that software makes use of the AM-62 keys.

4.2.1 Lock and Unlock

The keyboard may be locked or unlocked by making the appropriate selection in Set-Up mode. To:

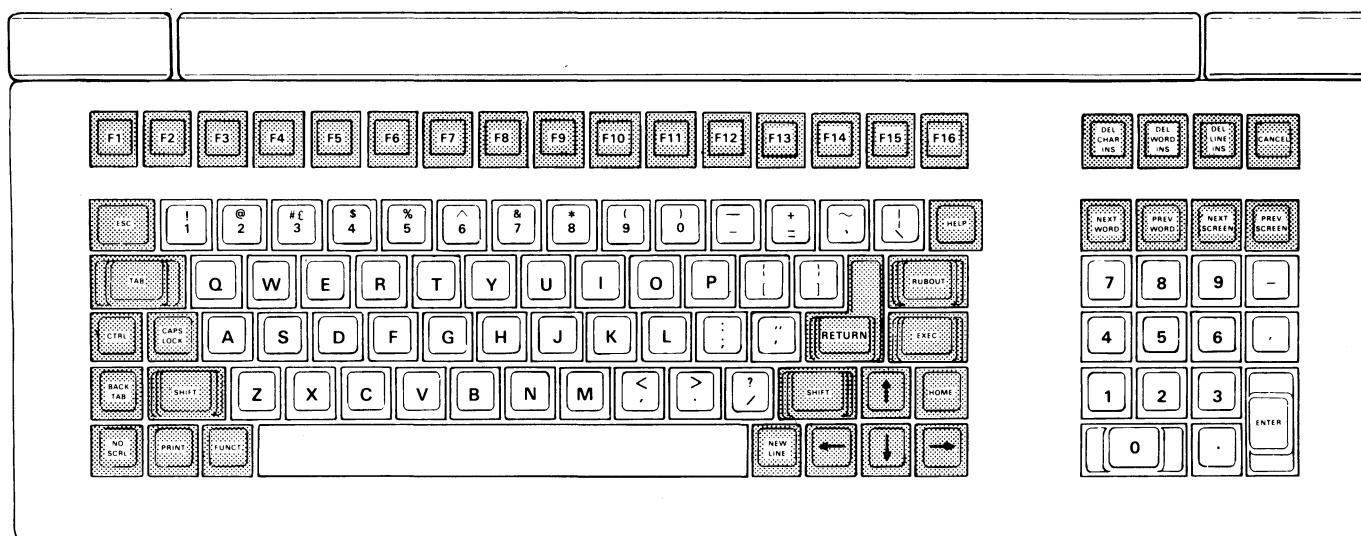
Lock the Keyboard - Enter Set-Up mode (CTRL/SHIFT/CANCEL) and set the parameter to "KB LK".

Unlock the Keyboard - If the keyboard is in a locked state, enter Set-Up mode CTRL/SHIFT/CANCEL (these keys will not lock) and alter the setting to "KB ON".

The keyboard lock/unlock setting will remain as selected until Set-Up mode is entered and the setting is altered.

4.2.2 Character Set Group

The Character Set group contains alphabetic, numeric, program function keys and special symbol keys whose functions and arrangements are similar to those of an IBM Selectric III typewriter (Figure 4-1).



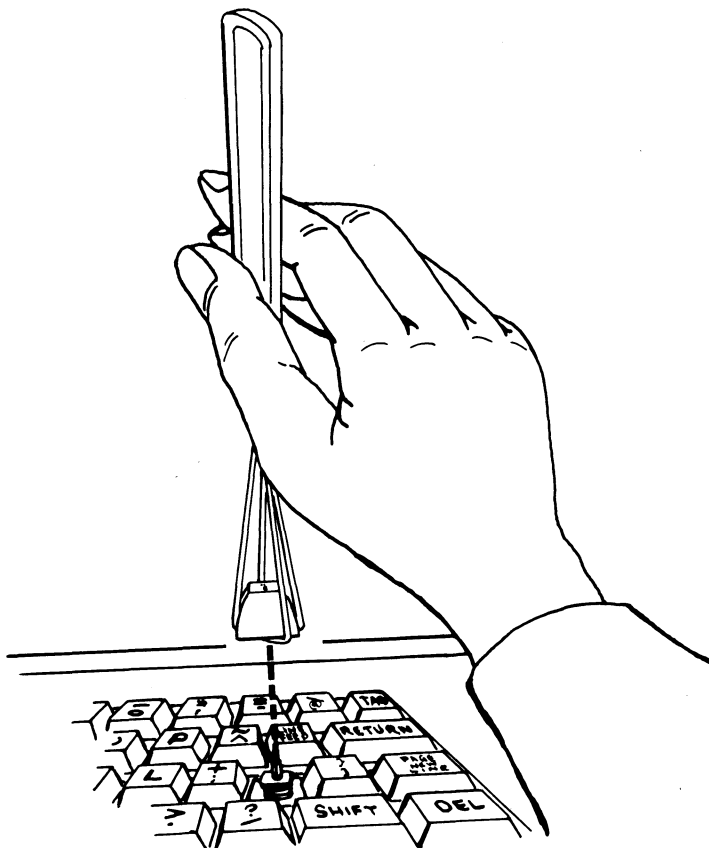
6180-USA/UK

Figure 4-1. Standard (United States/United Kingdom) Character Set

In addition to the standard Character Set group, United States/United Kingdom, any one of five national character sets may be selected when in Set-Up mode. These national character sets are German, French, Swedish, Norwegian, and Danish (refer to Appendix D).

When using one of the optional national character sets, remove and replace keycaps properly using a keycap remover (Figure 4-2). Position replacement keycaps and snap in place by hand. The optional national character sets illustrated in Appendix D identify the correct location of replacement keycaps.

Appendix D also provides hexadecimal codes and a comparison of special symbols for the national character sets (Figure D-6).

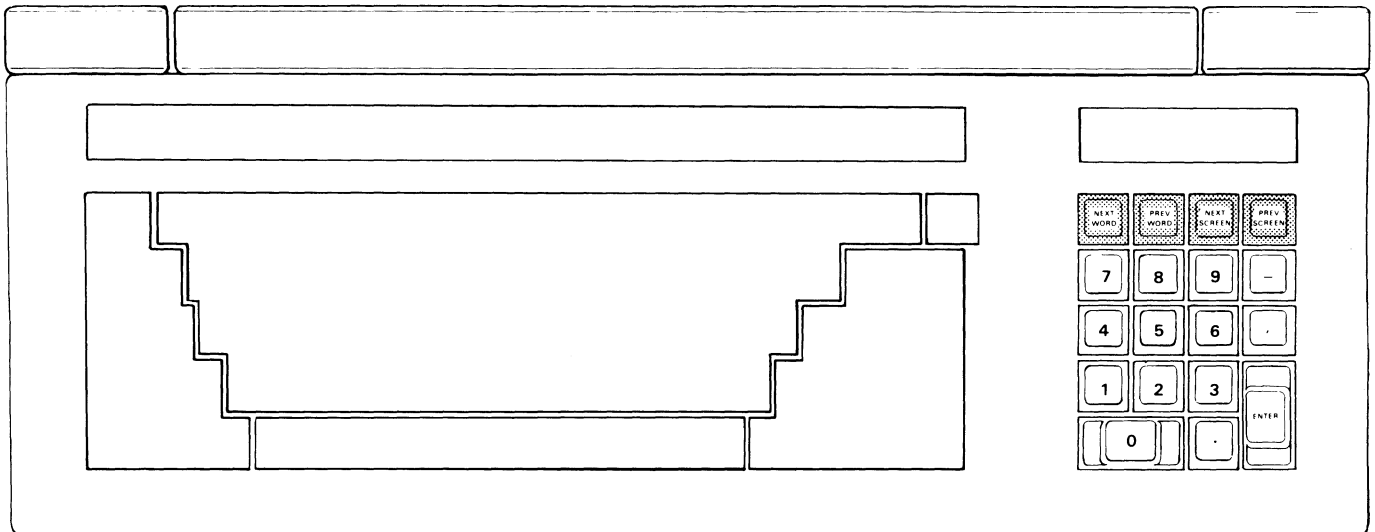


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Figure 4-2. Keycap Remover

4.2.3 Numeric Keypad Group

The keys constituting the Numeric Keypad Group are shown in Figure 4-3. For TeleVideo emulation, all keys function identically to their counterparts in the Character Set and Edit Keys Groups while in the (Numer)ic mode. If in the (funct)ion mode, numeric keys will respond only as function lead-in keys (refer to paragraph 5.7 for more information concerning the Function Key modes).



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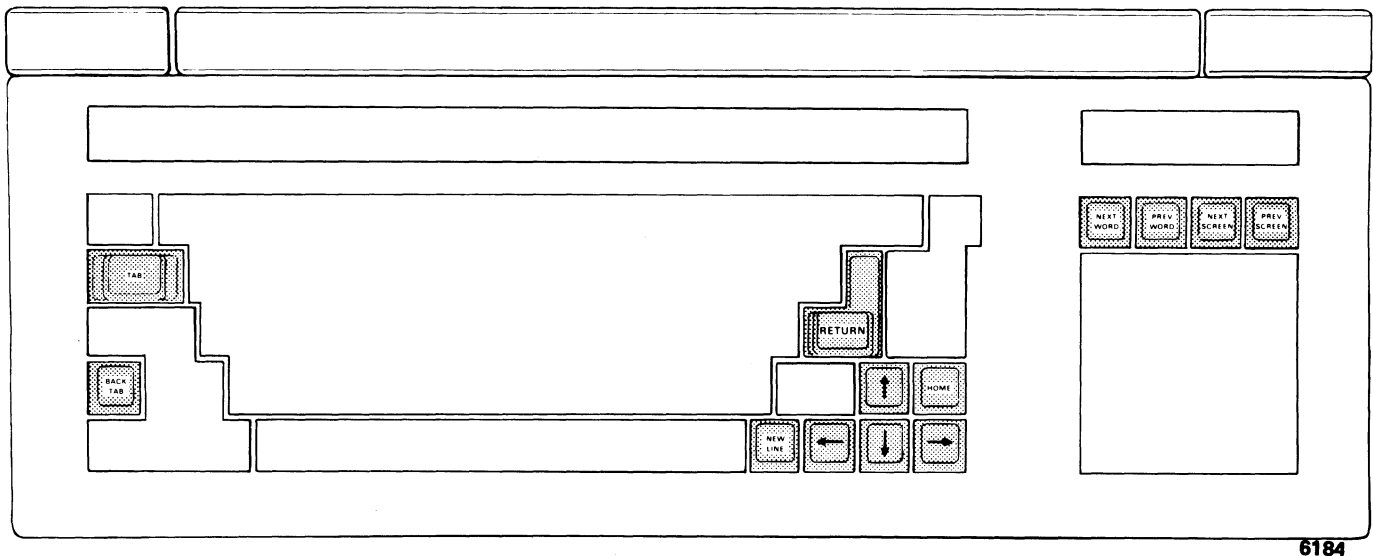
Figure 4-3. Numeric Keypad Group

When Numeric keypad is enabled, the keys generate codes for numbers, 0 through 9, period, comma, minus, and Enter. In their shifted state, these keys act as program function keys and send a three-character code to the host computer.

To use the numeric keypad as function lead-in keys only, select "FUNCT" in Set-Up mode. To use the numeric keypad as numeric keys (unshifted state) and as function lead-in keys (shifted state), select "NUMER" in Set-Up mode.

4.2.4 Cursor Control Keys Group

The keys in this group dictate the cursor movement on the display page (Figure 4-4). Table 4-1 provides a cursor movement guide.



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Figure 4-4. Cursor Control Keys Group

Table 4-1. Cursor Control Keys Movement Guide


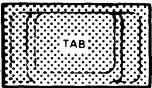

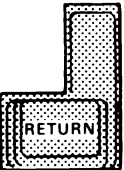








Key	Mode	Cursor Movement
		Cursor returns to a previous tab stop or to column 1 of the current line if there are no previous tab stops.
		Cursor moves forward to next tab stop or remains stationary if there are no tab stops.
		Cursor returns to Column 1, Line 1 (first position) on screen display.
	Wraparound On	If at Home position, cursor will move to the last position of line 24.
	Wraparound Off	If at Home position, cursor will not move.
	Auto Linefeed On	Cursor moves to first position of the next line.
	Auto Linefeed Off	Cursor returns to the first position of the same line.

Table 4-1. Cursor Control Keys Movement Guide (Cont.)

Key	Mode	Cursor Movement
   	Auto Scroll On Auto Linefeed On	Screen will scroll up one line if cursor is on line 24 and a carriage return is executed.
	Auto Scroll Off Auto Linefeed On	Cursor returns to the Home position with no scrolling taking place if on line 24 when a carriage return is executed.
		Cursor descends one line at the same vertical column. If cursor passes line 24, scrolling may occur.
		Cursor moves to the first position of the next line.
		Cursor moves up one line.
		Cursor moves one position to the right.
	Wraparound On	If at last position of line, cursor moves to the first position of the next line.
	Wraparound Off	If at last position of line, cursor will not move.
	Auto Scroll On Wraparound On	If at last position of line 24, screen scrolls up one line, and cursor moves to the first position of the new line.
	Auto Scroll Off Wraparound On	If at last position of line 24, cursor returns to the Home position with no scrolling taking place.
   		Cursor moves to the beginning of the following word.
		Cursor moves to the beginning of the previous word.
		Cursor moves out of the active text segment. Screen is replaced by as much text from the program text buffer as will fit in the new display segment.
		Cursor returns to the previous active text segment.

4.2.4.1 BACK TAB Key

Pressing the BACK TAB key returns the cursor to the previous tab stop when Protect mode is off or to the start of the previous unprotected field when Protect mode is on.

If there are no previous tab stops (when Protect mode is off) the cursor returns to column 1 of the same line.

4.2.4.2 TAB Key

When pressed, the TAB key moves the cursor forward to the next tab stop when Protect mode is off or to the first character of the next unprotected field when Protect mode is on. The cursor will not move if no tab stops are set or if the cursor is on the last tab position.

4.2.4.3 HOME Key

The HOME key causes the cursor to return to the first position of the display page.

4.2.4.4 RETURN Key

When pressed, the RETURN key causes the cursor to return to the first position of the same line. When auto line feed is enabled, the cursor moves to the first position of the next line.

The local action of this key is dependent on which operating mode is selected. For example, if auto scroll is enabled, a CRLF (carriage return line feed) activated while on the 24th line will cause the screen to scroll up one line. If auto scroll is disabled, then a CRLF while on the 24th line will cause the cursor to return to the first unprotected position on the current display page with no scrolling taking place.

4.2.4.5 ↓ Key (Down Cursor)

The ↓ key causes the cursor to descend one line. If the cursor is on line 24, then depression of this key may cause scrolling to occur.

4.2.4.6 ↑ Key (Up Cursor)

When pressed, the ↑ key causes the cursor to move up one line (in the same column). When line 1 is reached, the cursor will not move. If wrap around is "on", then the cursor will move to the last line of the screen.

4.2.4.7 ← Key (Left Cursor)

The ← key moves the cursor one position to the left.

4.2.4.8 → Key (Right Cursor)

When pressed, the → key causes the cursor to move one position to the right. If the cursor is at the last column on a line, it will move to the first position of the next line if wraparound is on or it will not move if wraparound is off. If the cursor is positioned at the last column of line 24 and auto scroll is on, the screen will scroll up one line and the cursor will move to the first position of the new line. If auto scroll is off, the cursor will return to the first position of the same line with no scrolling taking place.

4.2.4.9 NEW LINE Key

This key moves the cursor to the first character position of the next line. This action is a combination of the Cursor Down and RETURN keys.

4.2.4.10 NEXT WORD Key

The NEXT WORD key causes the cursor to move to the beginning of the word immediately following the current cursor location. (A word is delimited by a space, tab, punctuation mark, or carriage return).

4.2.4.11 PREV WORD Key

The PREV WORD key causes the cursor to move to the beginning of the word immediately preceding the current cursor location. (A word is delimited by a space, tab, punctuation mark, or carriage return).

4.2.4.12 NEXT SCREEN Key

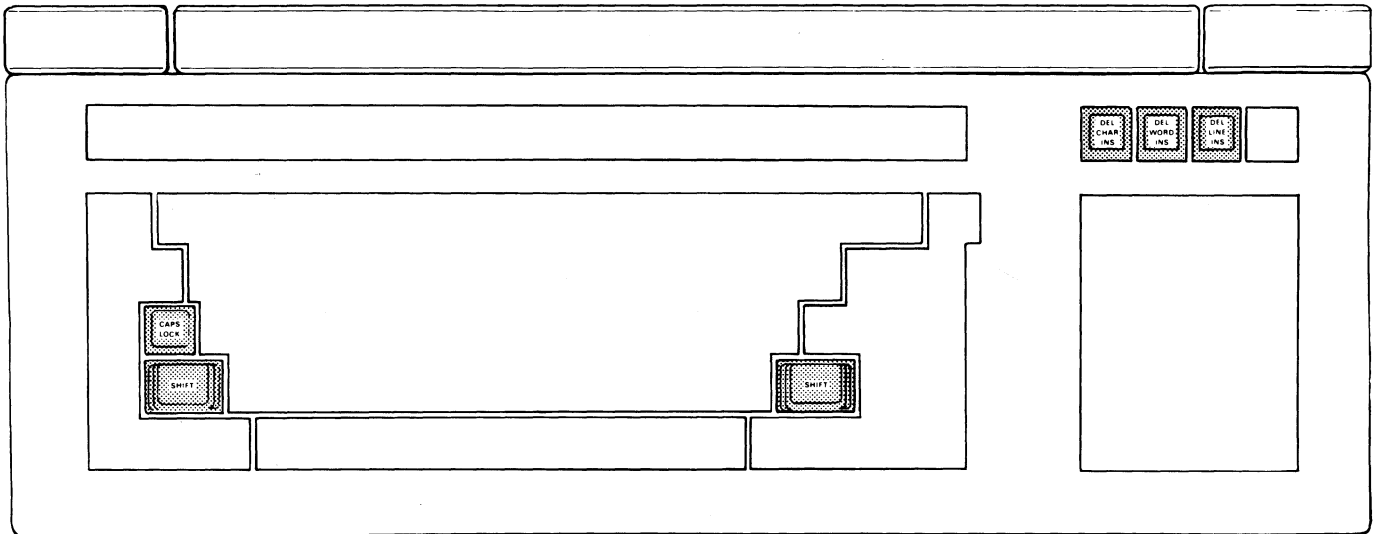
The NEXT SCREEN key causes the text in the currently defined active text segment to be replaced by as much text from the program text buffer as will fit in the text segment beginning with the line immediately following the current end-of-text.

4.2.4.13 PREV SCREEN Key

The PREV SCREEN key causes the text in the currently defined active text segment to be replaced by as much text from the program text buffer as will fit in the text segment ending with the line immediately preceding the current start-of-text.

4.2.5 Edit Keys Group

The keys in the Edit group are primarily used to alter the display of text and data. The following paragraphs will present these keys and give a description of their functions. Figure 4-5 will show the location of these keys on the keyboard.



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Figure 4-5. Edit Keys Group

4.2.5.1 SHIFT Key

When used with another key, the SHIFT key causes the shifted state of the other key to be activated. The SHIFT key must be pressed first and then held down during depression of the second key.

There are two SHIFT keys on the keyboard.

4.2.5.2 CAPS LOCK Key

The CAPS LOCK key toggles the alphabetic keys into and out of the shifted state. When activated, this key causes alphabetic keys to display in their upper-case state and the symbol "↑" to appear in full intensity at the bottom right-hand corner of the screen.

4.2.5.3 DELETE CHAR Key

The shifted state of the DEL CHAR INS key deletes the character at the cursor position and causes the remaining characters on the line to move one position to the left. A space character is written to the last position on the line.

4.2.5.4 INSERT CHAR Key

The unshifted state of the DEL CHAR INS key causes all characters at and to the right of the cursor to move one column to the right. This action enters a space character at the cursor position. The character at column 80 is lost.

4.2.5.5 DELETE LINE Key

The shifted state of the DEL LINE INS key deletes the entire line the cursor is positioned on. All remaining lines move up one line. The cursor will move to column 1 of the replaced line and space characters will be added to the last line of the screen.

4.2.5.6 INSERT LINE key

The unshifted state of the DEL LINE INS key causes a line to be inserted consisting of spaces at the cursor position. This action moves all remaining lines down one line, resulting in the loss of the last line of the screen.

4.2.5.7 DELETE WORD Key

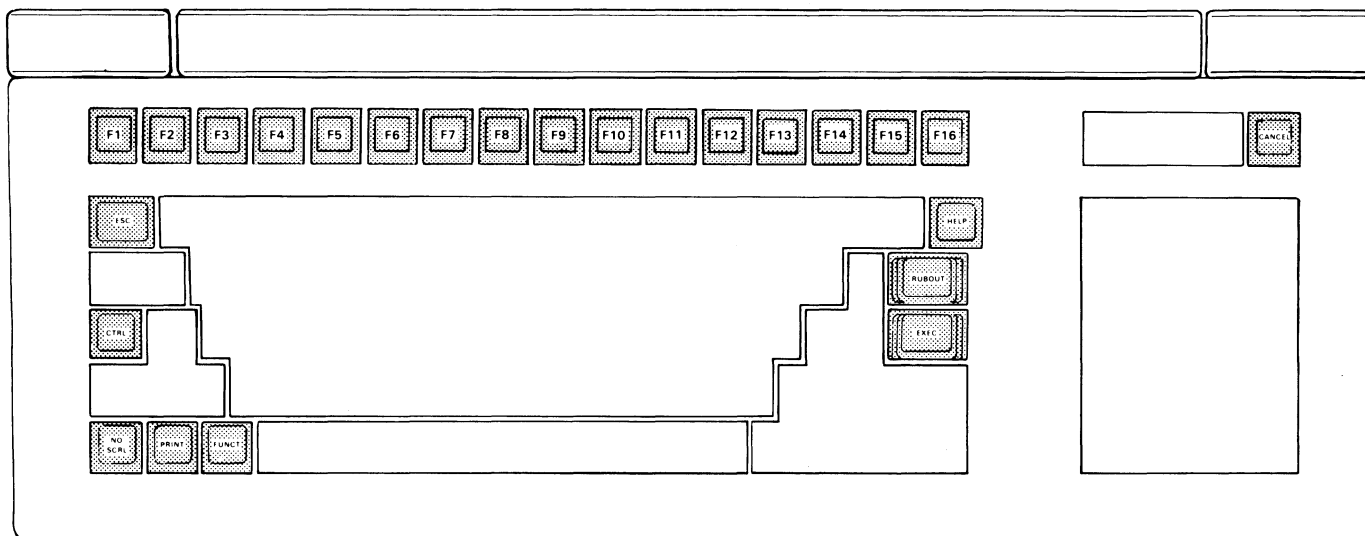
The shifted state of the DEL WORD INS key deletes all characters from the right of the current cursor position to a word delimiter. A word delimiter is a space, punctuation mark, carriage return, or tab.

4.2.5.8 INSERT WORD Key

The unshifted state of the DEL WORD INS key causes all characters entered after pressing this key to be inserted at the current cursor position, shifting all characters to the right of the cursor location each time you enter a new character. This action continues until a word delimiter is entered (space, punctuation mark, carriage return, or tab).

4.2.6 Control Keys Group

The keys in this group perform special control functions (Figure 4-6).



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Figure 4-6. Control Keys Group

4.2.6.1 PRINT Key

When pressed, the PRINT key causes the terminal to transmit, to a printer, all characters from the Home position to and including the current cursor position.

4.2.6.2 FUNCT Key

When the FUNCT key is depressed first and then held down in conjunction with another alphanumeric key, a three-character code sequence is transmitted (e.g., "FUNCT/6" will transmit SOH 6 CR [carriage return]).

4.2.6.3 CTRL Key

The CTRL (control) key is used as a prefix for control codes initiated at the terminal. To implement a control code, press and hold the CTRL key while pressing the key corresponding to the desired function.

4.2.6.4 ESC Key

The ESC key is used as a prefix for escape sequences initiated at the terminal to allow the user to perform a specific function. To implement an escape sequence at the terminal, press and hold down the **ESC** key and then press the key corresponding to the desired function.

4.2.6.5 RUBOUT Key

The RUBOUT key transmits a nondisplayable ASCII delete code to the host computer. Display memory is unaffected.

4.2.6.6 CANCEL Key

Pressing the CANCEL key causes the current function to be interrupted.

4.2.6.7 NO SCRL Key

When pressed, the NO SCRL key toggles the host computer to stop scrolling the screen (i.e., transmitting characters to the terminal). A second depression of this key signals the host computer to resume scrolling.

4.2.6.8 EXEC Key

The operation of this key is similar to that of the RETURN key. The manner in which your applications interprets the EXECute key depends on the requirement of your application. For some applications, the RETURN key might be interpreted as selecting a menu option and the EXEC key might be interpreted as a "do this function" key.

4.2.6.9 HELP Key

The HELP key causes a help menu, command memory, text file, or other user aid to be displayed on the terminal screen.

4.2.6.10 F1 Through F16 Keys

There are a total of sixteen function keys (labeled F1 through F16) which can be operated in a shifted or unshifted state, resulting in up to 32 function key sequences. Upon power-up of the terminal a default key sequence is assigned to each of the 32 function key positions (refer to Table 5-2).

SECTION V

OPERATION

5.1 USING THE OPERATING MODES

This section describes the various operating modes of the AM-62 terminal. Some of these modes can be turned on and off from the terminal configuration Set-Up mode. Others can only be accessed under program control.

This manual does not document the actual escape sequences recognized by the terminal's microcode for accessing these modes because Alpha Micro provides an easier and more efficient way for your programs to make use of the terminal's features -- standardized calls within the Alpha Micro operating system.

If you wish to make use of terminal features under program control, you will need information on the operating system terminal handling features available under the AMOS/L operating system -- refer to the AMOS/L Terminal Interface Programmer's Manual, DSS-10096-00. This document discusses the codes your program will send to the operating system to make use of terminal features such as protect mode, transparent print, special character display, keyboard lock, reverse video display, etc.

For information on the terminal handling features for an operating system other than AMOS/L that runs on the Alpha Micro computer, refer to the software documentation that accompanied that operating system.

If your software must communicate directly with a terminal's microcode rather than use the Alpha Micro operating system terminal handling features (for example, if you need to define a terminal access code in your terminal driver that has not been provided by the Alpha Micro operating system), it will be necessary to refer to the Engineering Specifications for the terminal. For the AM-62 terminal, see Terminal Specification PRB-00059-00, available from Alpha Micro Technical Services. That document also contains information on using the non-Alpha Micro compatible emulations offered by the AM-62 terminal.

5.1.1 Full Duplex Conversational Mode (FDX)

In full duplex mode, all escape sequences, control codes, and data entered at the keyboard are sent to the host computer only. This is the mode normally used for terminals attached to an Alpha Micro computer.

5.1.2 Half Duplex Conversational Mode (HDX)

This mode is the conversational alternative to full duplex mode. When in half duplex mode, all escape sequences, control codes, and data entered at the keyboard are sent to the display screen and host computer simultaneously. Not used when in Alpha Micro compatible (native) mode.

5.1.3 Character Mode

This operating mode provides for entry of data from the keyboard and for transmission of each character as it is received from the keyboard to the host computer. This is the mode normally used for terminals attached to an Alpha Micro computer.

The display of data as it is received from the keyboard will depend on what conversational mode is selected; i.e., full or half duplex.

5.1.4 Block Mode

When in Block mode, data is entered from the keyboard to the terminal display without immediate transmission to the host computer. It is entered in a protected format displayed on the screen, edited, and then transmitted in entirety or in unprotected parts only to the host computer. Not used when in Alpha Micro compatible (native) mode.

5.1.5 Line Mode

Line mode operates in the same manner as Block mode except that only the contents of the line, on which the cursor is positioned, are transmitted. Not used when in Alpha Micro compatible (native) mode.

5.1.6 Local Mode

Local mode provides for the local execution of terminal functions. In this mode, transmission of data and commands between the terminal and the host are prohibited. Not used when in Alpha Micro compatible (native) mode.

5.1.7 Write Protect and Protect Modes

These modes allow the user to designate certain areas on the screen in half-intensity and to later protect them from erasure and transmission during operator input.

5.1.7.1 Write Protect Mode

When this mode is set, each written character will appear in half-intensity, designating a protected area, except for line graphics and special word processing symbols which will only display in normal intensity even though they are written in reduced intensity mode.

5.1.7.2 Protect Mode

This mode protects designated character positions (those positions written in Write Protect mode) against erasure. All write-protected characters (those displayed in half-intensity) may be protected, including line graphics. Special word processing symbols can not be protected against erasure.

This mode only protects designated characters against erasure, write-protected areas may be entered and over written.

5.1.8 Monitor Mode

Monitor mode permits the display of all characters, without interpretation, including all escape sequences and control characters. This mode may be enabled when in the Set-Up mode and applies to TeleVideo 925 and ADM5 emulation modes only.

For a listing of Monitor mode facsimile characters, refer to Appendix E.

5.2 EDITING MODES AND COMMANDS

The following paragraphs describe the editing modes and commands available on the AM-62 terminal.

5.2.1 Edit Commands

The following paragraphs contain descriptions of the various edit commands available to the user.

5.2.1.1 Character Insert

This command may be executed by pressing the DEL CHAR INS key. Execution of this command causes all characters at and to the right of the cursor to move one column to the right while inserting a space character at the cursor position. The character at column 80 is lost.

5.2.1.2 Character Delete

This command may be executed by pressing the SHIFT key along with the DEL CHAR INS key. Execution of this command will delete the character at the cursor position and move the remaining characters of that same line one position to the left. At the end of the delete function, a space character will be written to column 80 of that line.

5.2.1.3 Line Insert

This command may be executed by pressing the DEL LINE INS key. This action inserts a line consisting of space characters at the cursor position. The result of this command causes the cursor to move to column 1 of the inserted line.

5.2.1.4 Line Delete

To execute a line delete command press the SHIFT key along with the DEL LINE INS key. This action will delete the line the cursor is positioned on and move the remaining lines on the screen up one line.

At the completion of this command, the cursor will move to column 1 of the line replacing the deleted line and spaces will be written to the last line of the screen.

5.3 ERASE COMMANDS

There are three different erase commands used under program control and offered by the AM-62 terminal. They are:

1. Erase from cursor position to end of line.
2. Erase from the cursor position to the end of screen.
3. Erase screen.

5.3.1 Erase from Cursor Position to End of Line

Erasing from the cursor position to the end of the line, erases all characters from the cursor position to the end of the line (if Protect Mode is off). If Protect mode is on, only unprotected characters, the cursor is currently in, will be erased.

If the cursor is in a protected field, when this erase command is issued, nothing will erase.

5.3.2 Erase from Cursor to End of Screen

When this command is issued, all characters, starting from the cursor position to the end of the screen (Protect Mode off) are erased. If protect mode is on, only unprotected characters will be erased.

If the cursor is on a protected field when the command is issued, no erasing will take place.

5.3.3 Erase Screen

All unprotected characters from the Home position to the last column and the line are erased when Protect mode is on. When protect mode is off, all characters, protected and unprotected, are are erased. Cursor will return to the Home position.

All three erase commands will clear to either full intensity or half-intensity.

5.4 TABULATION

Cursor movement to designated areas on the screen may be initiated using the TAB and BACK TAB keys. There are two types of tab stops: column and field. Column tab stops are applicable only when protect mode is off and field tab stops are applicable only when Protect mode is on.

5.4.1 TAB Key

The TAB key moves the cursor to the right to the next column tab stop. If no tab stops are set or if the cursor is on the last tab position, the cursor will not move.

5.4.2 BACK TAB Key

The BACK TAB key causes the cursor to go back to the previous tab position. If no tabs were set, or if the cursor is on the first tab position, the cursor will return to column 1 of the line.

5.4.3 Column Tabulation Controls

There are two kinds of column tabulation control: 1) the "typewriter" column tab setting, and 2) the half-intensity-space (protected fields) column setting which facilitates the generation of data entry "forms" with special fields. Table 5-1 lists the tab controls.

Table 5-1. Column Tab Controls

Control Description
Turns "off", the column tab mode and clear all column tab stops.
Turns "on", the column-tab mode and stores the current cursor column positions as a tab position.
Clears the column-tab position at the current cursor position.
Sets a column of half-intensity spaces at the cursor column, starting from the row where the cursor is down to the end-of-text row.

5.5 FUNCTION KEY MODES

There are two function key modes available:

Function Keys mode - For use with AM-62 emulation only.

Program Function Key Mode - For use with TeleVideo 925 emulation only.

5.5.1 Function Key Mode

The AM-62 has 32 programmed function key sequences using the F1 through F16 keys in both shifted and unshifted states. Table 5-2 lists the 32 function keys and their default escape sequences.

Table 5-2. Default Function Key Codes

Function Key	Unshifted Code	Shifted Code
F1	ESC 5	ESC 7
F2	ESC 4	ESC 6
F3	ESC S	ESC s
F4	ESC @	ESC P
F5	SOH @	SOH H
F6	SOH A	SOH I
F7	SOH B	SOH J
F8	SOH C	SOH K
F9	SOH D	SOH L
F10	SOH E	SOH M
F11	SOH F	SOH N
F12	SOH G	SOH O
F13	ESC E	ESC
F14	ESC R	ESC ~
F15	ESC T	ESC T
F16	ESC Y	ESC Y

5.5.2. Program Function Key Mode

The program function key mode allows the operator to use the numeric keypad as function keys. To enable this mode, enter Set-Up mode and make the selection "FUNCT".

While in the Program (Func)tion Key mode, unshifted numeric keys will transmit the codes listed in Table 5-3. If the terminal is in (Numer)ic mode, shifted numeric keys will operate as Function keys.

5.5.3 "FUNCT" Key with Numeric keypad Mode

This mode allows the operator to use the numeric keypad with the FUNCT key as function keys (Table 5-3).

Table 5-3. Function Key Code Sequences

Function Keys	Numeric Keypad Key	Code Sequence Transmitted TVI925
"FUNCT" 1	1	SOH @ CR
"FUNCT" 2	2	SOH A CR
"FUNCT" 3	3	SOH B CR
"FUNCT" 4	4	SOH C CR
"FUNCT" 5	5	SOH D CR
"FUNCT" 6	6	SOH E CR
"FUNCT" 7	7	SOH F CR
"FUNCT" 8	8	SOH G CR
"FUNCT" 9	9	SOH H CR
"FUNCT" 10	0	SOH I CR
"FUNCT" 11	. (period)	SOH J CR
"FUNCT" 12	ENTER	SOH ` CR
"FUNCT" 13	, (comma)	SOH a CR
"FUNCT" 14	- (minus)	SOH b CR

5.6 VISUAL ATTRIBUTE SYSTEM

The AM-62 provides five screen visual attributes: half-intensity, reverse, underline, blink, and blank (invisible). These attributes can be used selectively in any combination to highlight data fields and text blocks. The code that generates these screen visual attributes (program controllable) occupies one character position and is blank (except for half-intensity which does not occupy a character position).

Visual attributes affect all character positions to the right and subsequent lines until the next visual attribute is encountered. Half-intensity attribute affects the display on a character-to-character basis.

The entire screen may be shown in reverse video (white on black) by selecting "REVVID" in Set-Up mode. The default display is normal video (black on white) and is denoted by "NORVID" in Set-Up mode.

Table 5-4 provides a list of attributes.

Table 5-4. Screen Attributes

Normal (green characters on black screen) Blink Reverse Underscore Underscore and blink Underscore and reverse Underscore, reverse, and blink

5.7 PRINT FUNCTIONS

The AM-62 printer (auxiliary) port may be set for formatted print, transparent print, and unformatted print functions. If during a print operation, the printer connected to the auxiliary port cannot accept any more data, the printer may signal the terminal (lowering DTR signal) to stop sending data. The printer may then request the transmission of more data by signaling the terminal (raising DTR signal).

5.7.1 Formatted Print

Sends data from the Home position through the cursor position to the printer port. This print mode prints page data exactly as it appears on the screen, inserting line delimiters (a carriage return and linefeed) at the end of each line. An ACK code (06 Hex) will be sent to the host computer at the end of the print process.

5.7.2 Transparent Print

When transparent print is in effect, escape sequences, control codes, and all characters received from the host computer are not acted upon, but are transmitted to the printer port. Characters are not buffered but are sent to the printer as they are entered at the terminal.

5.7.3 Unformatted Print

This print function causes all subsequent data (including escape sequences and control codes) received by the terminal to be sent to the screen and to the printer port. This print function is similar to the transparent print function except that characters are buffered on the screen before being sent to the printer.

5.7.4 Bidirectional Printer Port

This function allows a printer connected to the printer port to communicate directly with the computer while allowing screen editing to continue on the terminal. Bidirectional printer port is selected in Set-Up mode and is normally used for communicating with Alpha Micro computers.

5.8 SPLIT SCREEN MODE

In addition to the normal display window (24 lines of 80 characters each), the AM-62 terminal offers horizontal split screen format with upper and lower display windows organized into:

Upper Window: M lines

Lower Window: N lines

where: M can be programmed to any number of lines from 1 to 24,
N can be programmed to be any number of lines from 0 to
23, and
M plus N equals 24.

Split screen display windows scroll independently of each other.

5.8.1 Difference in Screen Modes

The "normal" display format is similar to most conventional terminals supporting only one internal text segment in the terminal. TeleVideo 925 and Lear Siegler ADM5 supports only this normal display format.

The split screen display formats support two text segments simultaneously in the terminal. However, the host computer allows and selects only one active display window at a time by sending special escape sequences. This split screen display is available to terminals in the native AM-62 mode (Alpha Micro compatible) only.

5.8.2 Identifying the Split-Screen Active Display Window

The cursor's current screen position identifies the active display window. The host computer will acknowledge and perform all data/text editing and communications on the active window only. The inactive display window will not be affected by or acted upon the host computer.

5.8.3 Setting Split Screen Mode

Special command sequences from the host computer select the display format. When a "Set Horizontal Split Screen at Row 3," is received, the screen will clear immediately to null characters and then reset to a normal intensity (black on white) display and unprotected mode.

5.9 MESSAGE AND LABELING FIELDS

There are two areas on the screen which can display information beneficial to the user: Message Field Line and Function Key Labeling Line.

5.9.1 Message Field Line

The top row of the screen consists of two message field areas called the Message Field Line. The two message fields are the Terminal Message Field and the Program Message Field.

5.9.1.1 Terminal Message Field

This field contains text automatically generated by the terminal (e.g. "↑" indicating the shifted state of the alphanumeric keyboard). The terminal message field uses columns 74-80 to display information.

5.9.1.2 Program Message Field

This field contains text generated and sent to the terminal for display by a computer program (e.g. a status message telling the user what program is currently running), and extends from column 2 to 73.

5.9.2 Function Key Labeling Line

The bottom row on the screen is reserved for messages applicable to function key descriptions or other status messages.

5.10 SCREEN/CURSOR ON-OFF COMMANDS

The screen and the cursor may be visible as selected by the operator.

5.10.1 Cursor On-Off Commands

Enter Set-Up mode (CTRL/SHIFT/CANCEL) and select the appropriate cursor configuration.

5.10.2 Screen On-Off Commands

Screen display can be turned on and off under program control.

5.11 SPECIAL GRAPHICS MODE

The AM-62 terminal offers the user both line graphics and special word processing symbols. All special graphics characters will be displayed in normal intensity even though they may be written in half-intensity (write protect) mode. Line graphics will always be protected when in protect mode but the special word processing symbols will never be protected.

Enabling and disabling special graphics mode is done while in Set-Up mode. When in special graphics mode, the line graphic symbols or special word processing symbols can be displayed. Table 5-5 lists the line graphic and word processing symbols.

Table 5-5. Special Graphics

Description	Symbol	Code	Description	Symbol	Code
Top Intersect	T	30	Up Arrow	↑	21
Bottom Left Corner	L	31	Down Arrow	↓	22
Top Left Corner	┌	32	Raised Dot	.	23
Top Right Corner	┐	33	End-of-Line Marker	◄	24
Left Intersect	└	34	Horizontal Tab Symbol	→	25
Bottom Right Corner	┘	35	Paragraph Sign	¶	26
Vertical Line		36	Dagger	†	27
Solid Block	■	37	Section	§	28
Intersection	+	38	Cent Sign	¢	29
Right Intersect	┘	39	One-Quarter	¼	2A
Horizontal Line	-	3A	One-Half	½	2B
Slanted Block	▨	3B	Degree	°	2C
Double Lion Horizontal	=	3C	Trademark	™	2D
Bottom Intersect	└	3D	Copyright	©	2E
Double Line Vertical		3E	Registered	®	2F
Cross-Hatch Block	▩	3F			

APPENDIX A **SET-UP MODE PARAMETERS**

Appendix A lists the applicable and preferable Set-Up mode parameters for each terminal emulation mode. In each category (Status line field), the parameter in **bold** type is the most preferable selection and usually the default parameter for that terminal emulation. Status line selections that are not applicable for a particular terminal and therefore not displayed when that terminal is being emulated are indicated by "n/a." Refer to Section III for more information on each parameter

Status Line Selection	Terminal Emulation Mode		
	AM-62	TV925	ADM5
Caps Lock Display	n/a	BLANK CAPS	BLANK CAPS
Operating Mode	n/a	CHAR BLOCK LINE LOCAL	CHAR BLOCK LINE LOCAL
Communication Mode	n/a	FULL DUPLEX HALF DUPLEX	FULL DUPLEX HALF DUPLEX
Terminal Emulation	AM-62	TV925	ADM5
National Character Set	USA	USA	USA
Keyboard Lock/Unlock State	KB ON KB LK	KB ON KB LK	KB ON KB LK
Monitor Mode ON/OFF	n/a	MON OFF MON ON	MON OFF MON ON
State of Auxiliary Port	AUX OFF AUX ON TPR ON	AUX OFF AUX ON TPR ON	AUX OFF AUX ON TPR ON
State of Numeric Keypad	n/a	NUMER FUNCT	NUMER FUNCT
Protect Mode On/Off	PROT OFF PROT ON	PROT OFF PROT ON	n/a
Status Of Data Set Ready	DSR ON DSR OFF	DSR ON DSR OFF	DSR ON DSR OFF
Cursor Location At Power-Up	01:01	01:01	01:01

APPENDIX A
SET-UP MODE PARAMETERS (CONT.)

Status Line Selection	Terminal Emulation Mode		
	AM-62	TV925	ADM5
Status Line Display	n/a	STAT ON STAT OFF	STAT ON STAT OFF
Screen Video Status (normal or reverse)	NORVID REVVID	NORVID REVVID	NORVID REVVID
Cursor Configuration	BLK FLH UDL FLH UDL CUR CUR OFF BLK CUR	BLK FLH UDL FLH UDL CUR CUR OFF BLK CUR	BLK FLH UDL FLH UDL CUR CUR OFF BLK CUR
Scrolling Mode	JUMP SMOOTH	JUMP SMOOTH	JUMP SMOOTH
Line or Page Attribute	n/a	LN ATB PG ATB	n/a
Local or Duplex Edit	n/a	LOCE DUPE	n/a
Auxiliary Port as Gating Function or Keyboard Lock	n/a	n/a	AUX KB:KB AUX KB:AUX
Keyboard Click On/Off	KB CLICK CLK OFF	KB CLICK CLK OFF	CLK OFF KB CLICK
Keys Repeat On/Off	KB RPT RPT OFF	KB RPT RPT OFF	RPT OFF KB RPT
Shifted/Unshifted Alpha Keys State	LWCS UPCS	LWCS UPCS	LWCS UPCS
Real Time Indication	TIME AM 08:00 TIME PM 08:00	TIME AM 08:00 TIME PM 08:00	TIME AM 08:00 TIME PM 08:00
Screen Saver Feature	SAV ENB SAV OFF	SAV ENB SAV OFF	SAV ENB SAV OFF
Wraparound On/Off	WARP ON WRAP OFF	WRAP ON WRAP OFF	WRAP ON WRAP OFF
Warning Bell at Col. 72	BELL OFF BELL ON	BELL OFF BELL ON	BELL OFF BELL ON

APPENDIX A
SET-UP MODE PARAMETERS (CONT.)

Status Line Selection	Terminal Emulation Mode		
	AM-62	TV925	ADM5
CR with Linefeed or Without Linefeed	CR=CR CR=CRLF	CR=CR CR=CRLF	CR=CR CR=CRLF
Primary Port Baud Rate	HOST 9600	HOST 9600	HOST 9600
Transmission Protocol	DTR DTR-XON MODEM XON/OFF	DTR DTR-XON MODEM XON/OFF	DTR DTR-XON MODEM XON/OFF
Auxiliary Port Baud	AUX 9600	AUX 9600	AUX 9600
Bidirectional Print On/Off	n/a	BIDIR ON	n/a
Data Bits	BIT 8=0 BIT 8=1 7 BITS	BIT 8=0 BIT 8=1 7 BITS	BIT 8=0 BIT 8=1 7 BITS
Stop Bit Configuration	STOP 1 STOP 2	STOP 1 STOP 2	STOP 1 STOP 2
Parity Configuration	PAR OFF PAR ODD PAR EVEN PAR=1 PAR=0	PAR OFF PAR ODD PAR EVEN PAR=1 PAR=0	PAR OFF PAR ODD PAR EVEN PAR=1 PAR=0
Parity Check On/Off	NO PARCHK PAR CHECK	NO PARCHK PAR CHECK	NO PAR CHK PAR CHK
Frequency Rate	FREQ 60 FREQ 65	FREQ 60 FREQ 65	FREQ 60 FREQ 65
End-of-Line Indicator	n/a	HEOL=^_	HEOL=^_
End-of-message Indicator	n/a	HEOM=^M	HEOM=^_
End-Of-Message Indicator (from Aux port)	n/a	AEOM=^F	n/a
User Message Field	n/a	n/a	HERE IS= (Up to 20 characters may be entered)

APPENDIX B. PROGRAM CONTROL FEATURES

Function	ALPHA MICRO AM-62	LEAR SIEGLER ADM-5 (Key)	TELEVIDEO 925 (Key)
<u>OPERATING MODES</u>			
Block Mode ON	--	--	Yes
Character Mode ON	Yes	--	Yes
Line Mode ON	--	--	Yes
Local Mode On	--	--	--
Monitor Mode ON			
(Special Character Mode)	--	--	Yes
Monitor Mode OFF			
(Special Character Mode)	--	--	Yes
Protect Mode ON	Yes	--	Yes
Protect Mode OFF	Yes	--	Yes
Write Protect ON	Yes	--	Yes
Write Protect OFF	Yes	--	Yes
Auto Scroll Mode ON/OFF	Yes	--	--
Split Screen Mode ON	Yes	--	--
<u>EDITING COMMANDS</u>			
Set Local Edit	--	--	Yes
Set Duplex Edit	--	--	Yes
Cursor Up	CTRL-K	↑	↑
Cursor Down	CTRL-J	↓	↓
Cursor Right	CTRL-L	→	→
Cursor Left	CTRL-H	←	←
Cursor Home	CTRL-^	HOME	HOME
Carriage Return	CTRL-M	RETURN	RETURN
Linefeed	--	--	--
Reverse Linefeed	--	--	--
New Line	ESC !	--	--
Tab	CTRL-I	TAB	TAB
Back Tab	ESC j (1c)	--	BACK TAB
Field Tab	Yes	--	Yes
Set Column Tab	Yes	--	Yes
Clear Column Tab	Yes	--	Yes
Clear All Tabs	Yes	--	Yes
Set Half-Intensity Column	Yes	--	--
Character Insert	ESC N	--	DEL CHAR INS
Character Delete	ESC O	--	DEL CHAR INS
Line Insert	ESC n (1c)	--	DEL LINE INS
Line Delete	ESC K	--	DEL LINE INS
Word Insert	ESC l	--	--
Word Delete	ESC 2	--	--
Next Word	ESC w (1c)	--	--
Previous Word	ESC Q	--	--
Next Screen	ESC v (1c)	--	--
Previous Screen	ESC r (1c)	--	--

(1c) = lower case

APPENDIX B. PROGRAM CONTROL FEATURES (Cont.)

Function	ALPHA MICRO AM-62	LEAR SIEGLER ADM-5 (Key)	TELEVIDEO 925 (Key)
<u>EDITING COMMANDS</u> (CONT.)			
Erase Line to Spaces	Yes	Yes	Yes
Erase Line to Nulls	Yes	--	Yes
Erase Page to Spaces	Yes	Yes	Yes
Erase Page to Nulls	--	--	Yes
Clear All to Nulls	--	--	Yes
Clear All to Spaces	--	Yes	--
Clear Unprotected to Spaces	--	--	Yes
Clear Unprotected to Nulls	--	--	Yes
Clear All to Half-Intensity	--	--	Yes
<u>SEND COMMANDS</u>			
Send Line All	--	--	Yes
Send Line Unprotected	--	--	Yes
Send Page All	--	--	Yes
Send Page Unprotected	--	--	Yes
Send Message All	--	--	Yes
Send Message Unprotected	--	--	Yes
Send ID Message	--	Yes	--
Program Line Terminator	--	--	Yes
Program Page Terminator	--	--	Yes
<u>TRANSMISSION COMMANDS</u>			
Enable XON/XOFF Protocol	--	--	Yes
Disable XON/XOFF Protocol	--	--	Yes
<u>PRINT COMMANDS</u>			
Formatted Print (From Home To Cursor)	ESC-1 (lc)	--	PRINT
Unformatted Print ON	Yes	Yes	Yes
Unformatted Print OFF	Yes	Yes	Yes
Transparent Print ON	Yes	-	Yes
Transparent Print OFF	Yes	--	Yes
Program Print Terminator	Yes	--	Yes

(lc) = lower case

APPENDIX B. PROGRAM CONTROL FEATURES (Cont.)

Function	ALPHA MICRO AM-62	LEAR SIEGLER ADM-5 (Key)	TELEVIDEO 925 (Key)
<u>PRINT COMMANDS</u> (CONT.)			
Bidirectional Print ON	Yes	--	Yes
Bidirectional Print OFF	Yes	--	Yes
<u>SPECIAL FUNCTIONS</u> <u>AND MISCELLANEOUS</u> <u>COMMANDS</u>			
Alarm (Beep)	Yes	Yes	Yes
Alignment E Pattern	--	--	--
Test Pattern	--	--	Yes
Keyclick ON	Yes	--	Yes
Keyclick OFF	Yes	--	Yes
Keyboard Lock	Yes	Yes	Yes
Keyboard Unlock	CTRL/SHIFT/ CANCEL	Yes	Yes
Graphic Mode ON	--	--	Yes
Graphic Mode OFF	--	--	Yes
Set Time of Day	--	--	Yes
Read Time	--	--	Yes
Print Time of Day	--	--	Yes
Display Control Characters	--	--	Yes
Write Message to User Line	--	--	Yes
Display User Line Message	--	--	Yes
Display Function Key	Yes	--	--
Screen Display ON	Yes	--	--
Screen Display OFF	Yes	--	--
Display Status Line	--	--	Yes
Interrupt Current Function	CTRL-C	--	--
<u>CURSOR ADDRESS</u>			
Address Cursor (Row, Column)	Yes	Yes	Yes
Address Cursor (Row)	--	--	Yes
Address Cursor (Column)	--	--	Yes
Read Cursor (Row, Column)	Yes	--	Yes
Address Cursor (Page, Row, Column)	--	--	Yes
Read Cursor (Page, Row, Column)	--	--	Yes

APPENDIX B. PROGRAM CONTROL FEATURES (Cont.)

Function	ALPHA MICRO AM-62	LEAR SIEGLER ADM-5 (Key)	TELEVIDEO 925 (Key)
<u>CURSOR ADDRESS (CONT.)</u>			
Flashing Block Cursor	Yes	Yes	Yes
Steady Block Cursor	Yes	Yes	Yes
Flashing Underline Cursor	Yes	Yes	Yes
Steady Underline Cursor	Yes	Yes	Yes
Cursor OFF	Yes	Yes	Yes
<u>VISUAL ATTRIBUTES</u>			
Normal Video	Yes	--	Yes
Blank	--	--	Yes
Flash	Yes	--	Yes
Invisible Flash	--	--	Yes
Reverse	Yes	--	Yes
Invisible Reverse	--	--	Yes
Reverse Flash	Yes	--	Yes
Invisible Reverse Flash	--	--	Yes
Underline	Yes	--	Yes
Invisible Underline	--	--	Yes
Underline Flash	Yes	--	Yes
Invisible Underline Flash	--	--	Yes
Underline Reverse	Yes	--	Yes
Invisible Underline Reverse	--	--	Yes
Underline Reverse Flash	Yes	--	Yes
Invisible Underline Reverse Flash	--	--	Yes
Black on White	--	--	Yes
White on Black	--	--	Yes
Normal Screen	Yes	--	Yes
Blank Screen	--	--	Yes
Set Attribute	--	--	--
Reverse Video ON/OFF	--	Yes	Yes
Half-Intensity ON	--	Yes	Yes
Half-Intensity OFF	--	Yes	Yes
Enter Graphic Code	Yes	--	--

APPENDIX C. ASCII CODE CHART

						0	0	0	0	1	1	1	1
						0	0	0	0	1	1	1	1
						0	1	0	1	0	0	1	0
						0	1	1	1	0	1	0	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
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						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
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						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0	1	0	0	0	1	1
						0	0						

32 ASCII
Control
Codes

96 ASCII
Character Set

Notes:

o Hexadecimal = ASCII Column + Row A = 41 Hex

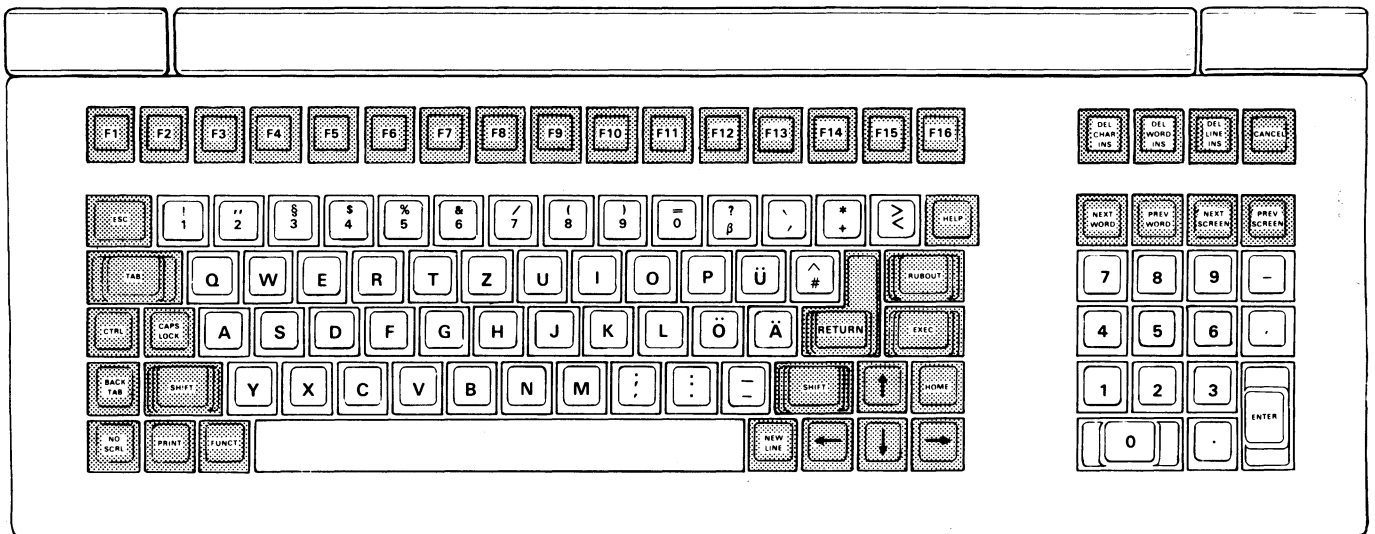
o ASCII Encoded Letter A = Bits: P7654321
#1000001

(* = Parity Bit)

APPENDIX D

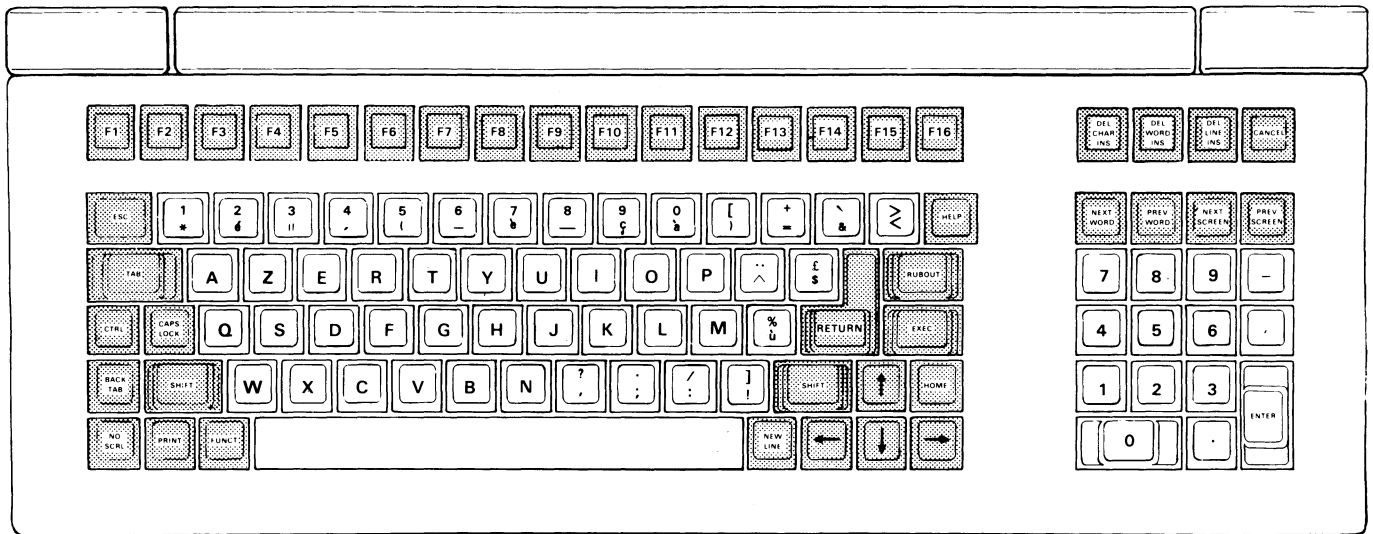
NATIONAL CHARACTER SETS

Any one of six national character sets may be selected when in Set-Up mode. The U.S./U.K. keycap is standard on each unit (see Figure 4-1). Optional German, French, Swedish, Norwegian, and Danish keycap sets are available for the alternate national character sets.



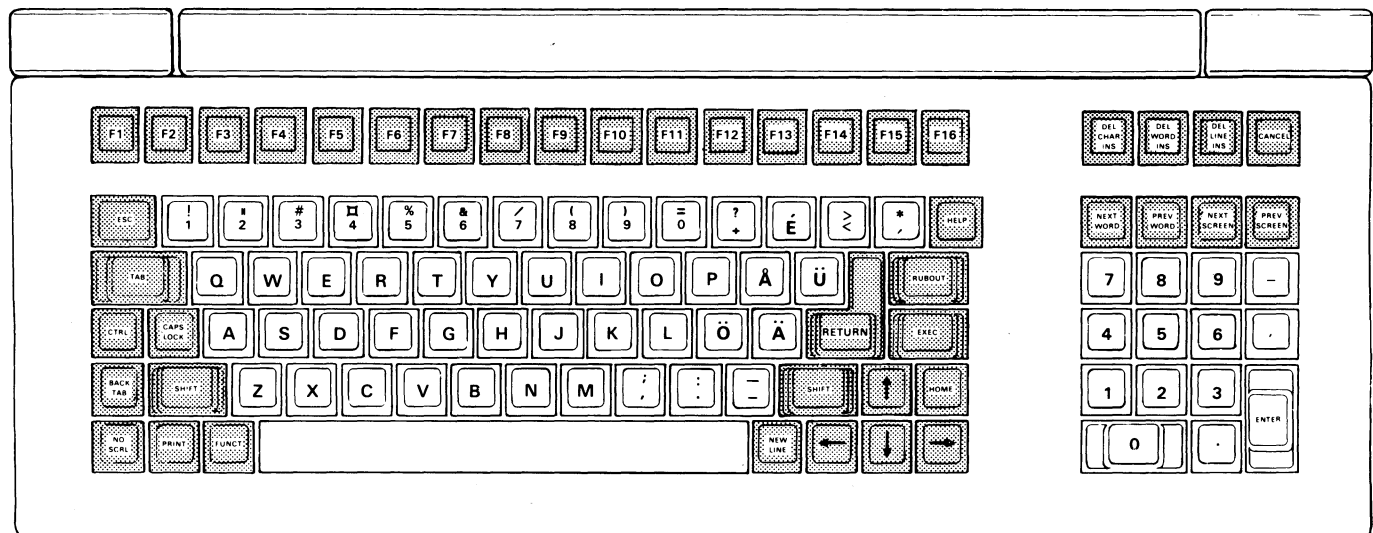
6180-GER

Figure D-1. Optional German Keyboard



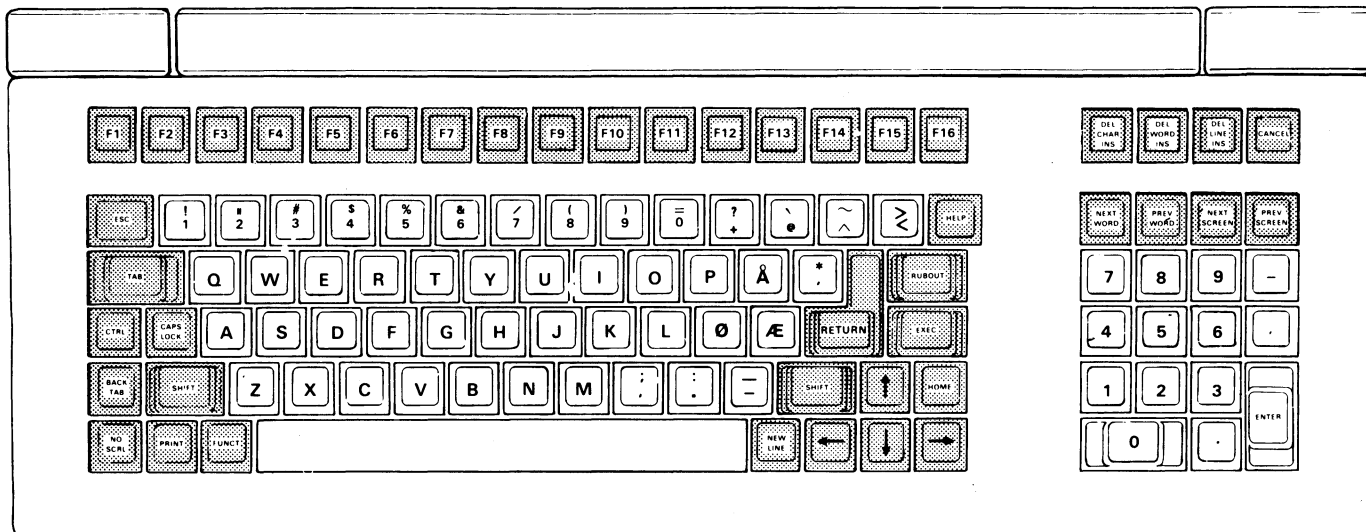
6180-FRE

Figure D-2. Optional French Keyboard



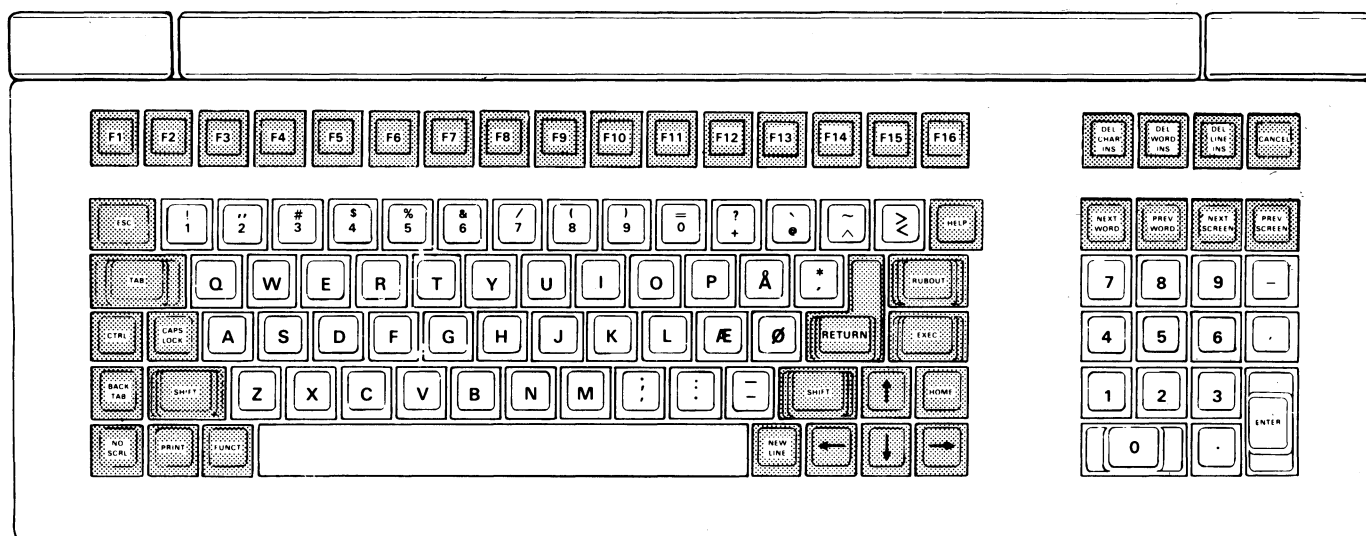
6180-SWE

Figure D-3. Optional Swedish Keyboard



6180-NOR

Figure D-4. Optional Norwegian Keyboard



6180-DAN

Figure D-5. Optional Danish Keyboard

HEX CODE	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
UNITED STATES	#	\$	@	[\]	^	`	{		}	~
UNITED KINGDOM	£	\$	@	[\]	^	`	{		}	~
FRENCH (AZERTY)	£	\$	à	[§]	^	`	é	ù	è	..
GERMAN	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
SWEDISH	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
NORWEGIAN	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	~
DANISH	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	~

6146

Figure D-6. National Characters and Special Symbols

APPENDIX E

MONITOR MODE FACSIMILE SYMBOLS

(Applies To TeleVideo 925 Emulation Only)

Facsimile	ASCII Mnemonic	Hexa-decimal Code	Description
N _U	NUL	00	Null
↑	SOH	01	Start of Heading
↓	STX	02	Start of Text
.	ETX	03	End of Text
◀	EOT	04	End of Transmission
➡	ENQ	05	Enquiry
Ⓢ	ACK	06	Acknowledge
†	BEL	07	Bell (beep)
Ⓟ	BS	08	Back Space
Ⓢ	HT	09	Horizontal Tab
¼	LF	0A	Line Feed
½	VT	0B	Vertical Tab
◦	FF	0C	Form Feed
T M	CR	0D	Carriage Return
Ⓢ	SO	0E	Shift Out
Ⓢ	SI	0F	Shift In
D _L	DLE	10	Data Link Escape
D ₁	DC1	11	Device Control 1
D ₂	DC2	12	Device Control 2
D ₃	DC3	13	Device Control 3
D ₄	DC4	14	Device Control 4
N _K	NAK	15	Negative Acknowledge

APPENDIX E

MONITOR MODE FACSIMILE SYMBOLS

(Cont.)

(Applies To TeleVideo 925 Emulation Only)

Facsimile	ASCII Mnemonic	Hexa-decimal Code	Description
S _N	SYN	16	Synchronous Idle
E _B	ETB	17	End of Transmission Block
C _N	CAN	18	Cancel
E _M	EM	19	End of Medium
S _B	SUB	1A	Substitute (clear all to spaces)
E _S	ESC	1B	Escape
F _S	FS	1C	File Separator
G _S	GS	1D	Group Separator
R _S	RS	1E	Record Separator, (Home)
U _S	US	1F	Unit Separator, (New Line)
	SP	20	Space, Blank

APPENDIX F **SIMPLIFIED TROUBLESHOOTING GUIDE**

This appendix is intended to assist the terminal operator should there be any difficulty operating the terminal.

Non-Printer Related Problems/Causes

Problem	Possible Cause
Terminal will not turn on when power switch is set to ON.	<ol style="list-style-type: none"> 1. AC cord not plugged in to wall outlet. 2. Blown Fuse. Replace (see Figure 1-2). 3. No power at wall outlet.
Display screen on but will not display characters when keys are pressed.	<ol style="list-style-type: none"> 1. Keyboard cable not plugged in to display unit. 2. Keyboard is locked -- Enter Set-Up mode and toggle to KB ON.
Unable to communicate with host computer.	<ol style="list-style-type: none"> 1. I/O cables not properly connected from terminal primary port to host computer. 2. Incorrect operating mode - should be Character (CHAR) mode.
Jumbled display on screen.	<ol style="list-style-type: none"> 1. Incorrect primary port baud rate -- enter Set-up mode and correct the condition. 2. Incorrect bits-per-character -- enter Set-up mode and correct the condition. 3. Incorrect parity -- enter Set-up mode and correct the condition. 4. Monitor mode is ON -- Enter Set-Up mode and toggle to MON OFF.
Continuous beeping when receiving data from host computer.	<ol style="list-style-type: none"> 1. Bell is ON. Enter Set-up mode and turn bell off.

Printer Related Problems/Causes

Problem	Possible Cause
Printer is not interfacing properly with the terminal.	<ol style="list-style-type: none">1. Printer is using a port other than an RS232 asynchronous interface port.2. The terminal's printer port is not set to "output".3. Incorrect data word structure. Change printer operating configuration.4. The printer's VDT port pins are set incorrectly to the printer's input and signal ground pins. Set VDT port pins to Pin 3 (output) and Pin 7 (signal ground).5. The "Printer Ready" signal is set incorrectly. Set this signal to Pin 20*.

* NOTE: Printer pin assignments may vary; consult the printer's manufacturer for more information.

PRINTER INTERFACE SELF-TEST

After checking the five possible causes and correcting, as necessary, the printer should interface properly with the terminal. To verify that all problems have been corrected, perform this self-test procedure on your terminal not connected to a modem or a host computer. If the unit is connected to a host or modem, disconnect before performing this self-test.

1. Set the terminal in Block Mode.
2. Type in several lines of information.
3. Depress the PRINT key.

Result: If interface problems have been resolved, all data from the Home position to, and including, the current cursor position should print.

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