Elbit DS 1920 Display Terminal

A low-cost family of Teletype compatible CRT keyboard/display terminals.

Standard features include selectable transmission speeds from 110 to 9600 bps, character or block mode transmission, page and scroll modes, full cursor control, cursor addressibility, numeric pad, editing, and protected format.

Available on an OEM basis only, the stand-alone terminal with detachable keyboard is priced between $1,510 and $1,704 in unit quantities; quantity discounts range up to 28 percent on orders of 100 or more units.

MANAGEMENT SUMMARY

The Elbit DS 1920 Display Terminal is a stand-alone keyboard/display terminal designed for Teletype compatibility. The terminal is the first data communications product of Elbit Computers, Ltd., an Israeli computer company, to be directly introduced to the data communications market via its subsidiary, Elbit USA, Inc. The DS 1920 is available in four models that differ only in available features. The terminal is available with a 12- or 15-inch monitor and is equipped with a detachable keyboard that can be positioned for operator convenience. Teletype compatibility is supported by character transmission, an RS-232C or 20 ma dc current interface, ASCII transmission code, and the capability to operate at low transmission rates.

The salient characteristics of the Elbit DS 1920 include:

- Seven selectable transmission rates from 110 to 9600 bps.
- Character, line, or page transmission.
- Cursor addressibility.
- Full cursor control.
- Scrolling.
- 1920-character screen.
- Dual intensity display.
- 64 or 96 displayable characters.
- Numeric pad.
- Blinking.
- Protected fields.

CHARACTERISTICS

VENDOR: Elbit USA, Inc. (a subsidiary of Elbit Computers, Ltd.) 8100 34th Avenue South, Box 0, Minneapolis, Minnesota 55440. Telephone (612) 853-7050.

DATE OF ANNOUNCEMENT: January 1976.

DATE OF FIRST DELIVERY: January 1976.

NUMBER DELIVERED TO DATE: Information not available.

SERVICED BY: Third party.

MODELS

The DS 1920 is a stand-alone display terminal available in four models: Models 11, 20, 21, and 30. The models are variations of the same terminal and differ only in features. Model differences are presented below.

	11	20	21	30
Keyboard keys	63	95	95	95
Numeric pad	No	Yes	Yes	Yes
Function key pad	No	Yes	Yes	Yes
Blinking	No	No	Yes	Yes
Editing	No	No	No	Yes
Field protection	No	No	No	Yes
Tabulation	No	No	No	Yes
128 character set	No	No	No	Yes

The DS 1920 terminal is available with a separate RS-232 or 20 ma dc current loop interface for printer attachment. Any non-impact printer similar to the Control Data Model 92453 can be used. The CDC 92453 is a table-top printer rated at 30 char./second with 80 print positions and features an automatic carriage return and line feed on the 81st character.

TRANSMISSION SPECIFICATIONS

Transmission is asynchronous, half- or full-duplex at user-selectable transmission rates of 110, 300, 600, 1200, 2400, 4800, or 9600 bits/second. The transmission code is 10- or 11-unit, 8-level ASCII; odd, even, or no character parity is switch-selectable. One or two stop bits can be hard wired. (Code levels of 5 through 8 data bits can be hard-wire

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- Insertion/deletion.
- Tabulation between unprotected fields.
- Local copy capability.

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Elbit Computers, Ltd. was founded in Israel in 1966. Its initial product, the Elbit 100 minicomputer, was introduced in 1968, and in 1969 it introduced a data entry system called Validata. The DS 1920 has been marketed in Europe over the past year and was just introduced in the U.S. in December 1976. □

selected.) The terminal is equipped with an RS-232C or 20 ma dc current loop interface.

DEVICE CONTROL

Transmission can be performed character-by-character or by block. A line, page, or partial text can be transmitted in the block mode. On the Model 30, unprotected fields only or protected and unprotected fields can be transmitted. The terminal features Scroll and Page modes. In the Page mode, data is entered and displayed at the cursor location and moves downward until the screen is filled. The cursor then moves to the beginning of the page (home). In the Scroll mode, data is entered and displayed in the last line. When filled, the line moves up by one line and the cursor returns to the beginning of the bottom line. Data scrolled beyond the first line is lost. A line only is transmitted in the Scroll mode, and the screen rolls up by one line when the line is transmitted.

The cursor is addressable on all models. Cursor controls include up, down (Line Feed), left, right, home, tab (Model 30 only), and Carriage Return. A Line Feed in the Scroll mode moves all lines up by one line. Cursor functions can be controlled by the keyboard or host computer via control codes.

The Bell (an audible alarm with a frequency of 1.7 KHz and duration of 300 milliseconds) sounds when a Bell code is received, when the cursor is advanced from the 72nd to 73rd column, when a parity error is detected in the received character, or when power is applied to the terminal. The keyboard is disabled when a Keyboard Lock code is received; the keyboard can be enabled by depressing Break or receiving the Clear or Unlock code.

Erase functions include line erasure, page erasure and clear. Line erasure erases all data from the cursor position to the end of the line occupied by the cursor. Page erasure erases all data from the cursor position to the end of the screen. Clear erases the entire screen and positions the cursor at home.

Functions provided by the Model 30 only include character insertion and deletion, format protection, and tabulation. Character insertion shifts all data right by one position from the cursor to the end of the screen, or the first protected field, leaving space for one character to be entered at the cursor position. Character deletion shifts all data from the cursor to the end of the line occupied by the cursor or first unprotected field on that line, thereby, deleting the character at the cursor position. The character insertion and deletion functions are disabled within a protected field.

Protected fields are bracketed by special keyed or received control codes, which prevent inadvertent entry into the protected field. Tabbing moves the cursor from one protected field to the beginning of the next, and from the last to home position. Protected fields are displayed at reduced intensity.

COMPONENTS

DISPLAY UNITS: All models provide a 12 inch (diagonal measurement) CRT with a viewing area 8 inches wide by 5.24 inches high. A 15-inch CRT with a viewing area 10.2 inches wide by 6.3 inches high is optional. The display is arranged in 24 lines of 80 characters each for a total display capacity of 1920 characters. A character set of 64 displayable ASCII symbols including upper case alphabetics only is standard. A 96-character ASCII symbol set including upper and lower case alphabetics is optional. Model 30 is available with a 128-character set of ASCII symbols. Data is displayed in white. Each symbol is formed within a 5-by-8 dot matrix. The cursor is displayed as a blinking underscore. Blinking, a standard feature of the Models 21 and 30, highlights important data to alert attention.

KEYBOARD: A typewriter-style, detachable keyboard equipped with 63 (Model 11) or 95 keys (all other models). the Model 11 keyboard can generate any of 96 ASCII characters including 32 controls and provides the following functions: Rub Out, Reset (Home), Escape, Carriage Return, Line Feed, Repeat, Break, Shift, Shift Lock, Control Shift, and up, left, and right cursor functions. All other models are equipped with an 11-key numeric pad (including decimal point), a separate 8-key function key cluster, and a row of 13 function keys located over the main keygroup.

The other models provide the same key functions of Model 11 plus additional functions. Control codes are engraved on the keytops.

PRICING

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	Purchase Price*				
	1-9 Units	10-24 Units	25-49 Units	50-99 Units	100-249 Units
Model 11 (basic terminal with 64 character set and addressable cursor)	$1,510	$1,440	$1,310	$1,220	$1,100
Model 20 (basic terminal with 64 character set, full keyboard, including numeric pad, and addressable cursor)	1,640	1,550	1,420	1,330	1,190
Model 21 (basic terminal with 64 character set, full keyboard, including numeric pad, blinking, and addressable cursor)	1,687	1,593	1,463	1,373	1,207
Model 30 (basic terminal with 64 character set, full keyboard including numeric pad, addressable cursor, blinking, editing, tabulation, and field protection)	1,704	1,606	1,480	1,396	1,236
Options					
15-Inch CRT Monitor	39	39	39	39	39
96-Character Set (includes upper and lower case alphabetics)	80	70	70	70	70
128-Character Set (Model 30 only)	**	**	**	**	**
Special key engraving, per key	1.20	1.00	1.00	1.00	0.80
Cable, 15 feet RS-232	25	25	25	25	25

* For quantities of 250 and over, contact Elbit, Inc.

**One time charge of $1,950.■

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