

LOW COST GRAPHICS
BIO DATA
10/5/70 ✓
Executerm I



Remote Data Terminal for the Time Sharing Computer User

The Executerm I has been designed and engineered for rapid interactive communication as a remote terminal. It offers communications flexibility as versatile as the computer and is an attractive alternative to the slow, noisy, mechanical units previously used.



Courier
Terminal Systems, Inc.

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STANDARD FEATURES

1. **Non-Destructive Cursor.** The cursor may be moved back and forth over existing characters on the screen without changing the content or format on the screen.

2. **Parity Check.** Even parity is checked on incoming characters and generated on outgoing characters. If a character is received with incorrect parity, a special symbol is displayed in its place on the screen.

3. **Horizontal Tabulation.** Four fixed TAB stops are pre-wired into the logic for columns 8, 16, 24, and 32. When a horizontal TAB character is detected the cursor will index to the next fixed TAB position and stop. The next character received will be displayed in that location. Sequential horizontal TAB characters will cause the cursor to move to each successive TAB location.

4. **Page Roll.** When selected, the Page Roll switch enables an automatic roll feature which keeps the bottom of the page open for continuous data entry. The roll action takes place if the internal data buffer is filled or if a sixteenth line is attempted. All characters on the display move upward one or more lines *until the first carriage RETURN is encountered*. The characters which were displayed up to that point are lost.

When page roll is *not* selected, incoming data is lost after the buffer is filled or *if* 15 lines have been displayed. The computer can cause data to be overwritten starting at the top of the screen or can cause the current page to be erased and a new page to be started by sending the appropriate control codes.

5. **Conversation Mode.** When the conversation mode is selected by the operator, a character is transmitted to the computer and screen immediately after depressing a key on the keyboard. Buffering of characters in the terminal is only for display regeneration.

6. **Edit Mode.** When the edit mode is selected by the operator, characters are displayed on the screen as they are entered via the keyboard or the computer. No characters are transmitted to the computer until the "SEND" key is depressed. This mode allows visual inspection and modification of the data prior to transmission.

When the "SEND" key is depressed, the data, starting with the first line of the page and terminating with the cursor location, is transmitted as a message to the computer.

7. **Word Blinking.** A special control character when placed before a group of characters will cause that group of characters to blink two times a second. This control character may be input through the keyboard or sent to the terminal via the communication line.

8. **Repeat Function.** When any key on the keyboard is depressed, a single character is generated. If the key is held down for a period exceeding one second, a string of characters is generated at a rate of eight per second. Thus, rapid cursor motion, space insertion, etc., is achieved.

9. **Automatic Line Advance.** If a carriage return is not sent before the 40th character of any given line is displayed, the Executerm will automatically perform the carriage return function.

CURSOR CONTROLS

1. **Backspace.** The cursor is moved left one character position. The REPEAT function can be used for multiple character slewing. The cursor "ends around" by moving from the first character position of present line to the last character position of the previous line. Characters on the screen remain unchanged.

2. **Forward Space.** The cursor is moved right one character position. The REPEAT function can be used for multiple character slewing. The cursor "ends around" by moving from the last character position of the present line to the first character position of the next line. Characters on the screen remain unchanged.

3. **Start of Page.** Cursor is moved to the first character position of the first line of the display. Characters on the screen remain unchanged.

EDITING FUNCTIONS

1. **Character Delete.** The character at the present cursor position is deleted and the following characters on that line move left one character position to fill in the void created by the deleted character.

2. **Character Insert.** A space character is inserted to left of the character indicated by the present cursor position, and the following characters on that line move right one character position to accommodate the inserted space.

3. **Character Replace.** The character at the present cursor position is replaced by the inputted character. The cursor is moved right one character position.

4. **Clear Page.** The entire display and buffer are cleared and the cursor is moved to the first character position of the first line of the display.

5. **Clear to End of Page.** The display and buffer are cleared starting to the right of the cursor position. The cursor position remains unaltered.

OPTIONAL FEATURES

1. **Format Mode.** This option permits the use of a computer or keyboard originated *fixed data format*. When the format mode switch is depressed, the operator can insert data into the variable data field only (within the brackets of the format), e.g.

```
NAME [      ] ADDRESS [      ]  
PHONE [     ] AGE [      ]
```

The Format Mode is similar in operation to the Edit Mode in that character transmission takes place only after the SEND key is pressed and the variable data may be edited prior to transmission. When in this mode, use of the TAB or RETURN key results in movement of the cursor to the first character position in the next set of brackets.

2. **Echo Mode.** This mode is similar in operation to the conversation mode. The difference is that, in the Echo Mode, the characters are transmitted to the computer first, and then back to the terminal for buffering and display. Besides providing a visual error check on data transmission, the Echo Mode has other special uses in special time sharing systems.

3. **Lower Case Graphics.** The 26 lower case alphabets and an additional five symbols can be displayed on the screen when this option is installed. The SHIFT key on the keyboard is used to differentiate between upper and lower case alphabets and symbols in a manner similar to a standard typewriter. For transmission between the computer and the terminal, the alphabetic case is selected via the transmission of the proper USASCII code.

4. **Answer Back.** When installed, the Answer Back feature responds automatically to a coded enquiry from the computer, by replying with 23 preset characters which identify the time sharing customer.

5. **General Parallel Interface.** This option utilizes parallel data transmission in eight bit ASCII Code. It features differential receivers and double ended cable drivers thus enabling the user to tailor the interface by altering his connections to suit his individual requirements.

6. **Printer.** A terminal controlled, hard copy printer is available. The Execuprint I is capable of multiple copy output, in-roll feed or fanfold, and pin or platen feed.

RELIABILITY/MAINTAINABILITY

Maximum customer usage and minimum down time are assured because Executerm I is produced only with highly reliable components and all major parts are arranged in an easily accessible, modular form. Built-in self-test features simplify servicing by simulating "worst case" conditions and isolating failures to major components.

Fast and efficient nationwide service is provided by highly trained and well equipped personnel.

INTERFACE SPECIFICATIONS

Speeds 110*, 150, 300, 600, 1200 bits/second

All codes are 7 bit USASCII plus even parity and include 1 asynchronous start bit and 1 stop bit (*except the 110 bits/sec. which contains two stop bits). The desired speed is selected at installation time.

ELECTRICAL INTERFACE OPTIONS

1. Data Set interface for Western Electric Co. 103 series or equivalent per EIA-RS 232B specification.

2. Acoustical Coupler — compatible with Western Electric 103A, E or G data Sets — (terminal must originate call).

3. Modem — Compatible with Western Electric 103A, E or G data sets. (Terminal must originate call.) Will connect by wire to Bell System Data Access Arrangement data coupling unit (F-58118 or F-57951).

4. Modem — Compatible with Western Electric 103F (or equivalent) private line data set. Will operate in originate mode and connect directly to the transmission circuits (2 or 4 wire).

5. Data Set interface for Western Electric 202 C/D series data sets (or equivalent) per EIA-RS232B specification.

6. Modem — Compatible with Western Electric Co. 202 C/D (or equivalent) data sets. Will connect via wire to either the Bell System Data Access Arrangement data coupling unit or directly to either a two or four wire transmission circuit (private line operation).

FUNCTIONAL CHARACTERISTICS

Viewing Area — 6.4" Horiz. X 4.8" Vert. Approx.

Screen Capacity — 600 Characters

Presentation Format — 15 Lines X 40 Characters

Displayable Characters — 512*

Character Size — 0.11" wide X 0.14" high

Refresh Rate — 66 pages/second

Scan Method — Modified Raster

Character Generation — (7 X 8 Dot Matrix)

Character Set — 26 Alpha, 10 Numeric, 26 Standard Symbols, 1 Special Symbol (parity error), and Space

Memory — MOS (semiconductor)

Code — 7 bit USASCII (plus 1 parity bit)

Keyboard —



PHYSICAL CHARACTERISTICS

Width 17"

Height 14"

Depth 22"

Weight 55 lbs.

Temperature Range 40°F to 100°F

POWER REQUIREMENTS

Voltage — 100 to 130 (nominal 117)

Frequency — 60 Hz** Single Phase

Power — Watts 150

Cord — 3 Wire/grounding plug

LINE DISCIPLINES OPTIONS

1. **Half Duplex Operation** — Available on all options.

2. **Full Duplex Operation** — Available on all Western Electric 103 compatible devices. Available on Western Electric 202 compatible options using four wire private line circuits.

*Free form format allows for efficient utilization of buffer storage. Format control characters stored in the buffer by the operator can cause displayable characters to be located as desired in the 600 displayable positions on the screen.

**50 Hz Export Models Available.



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