

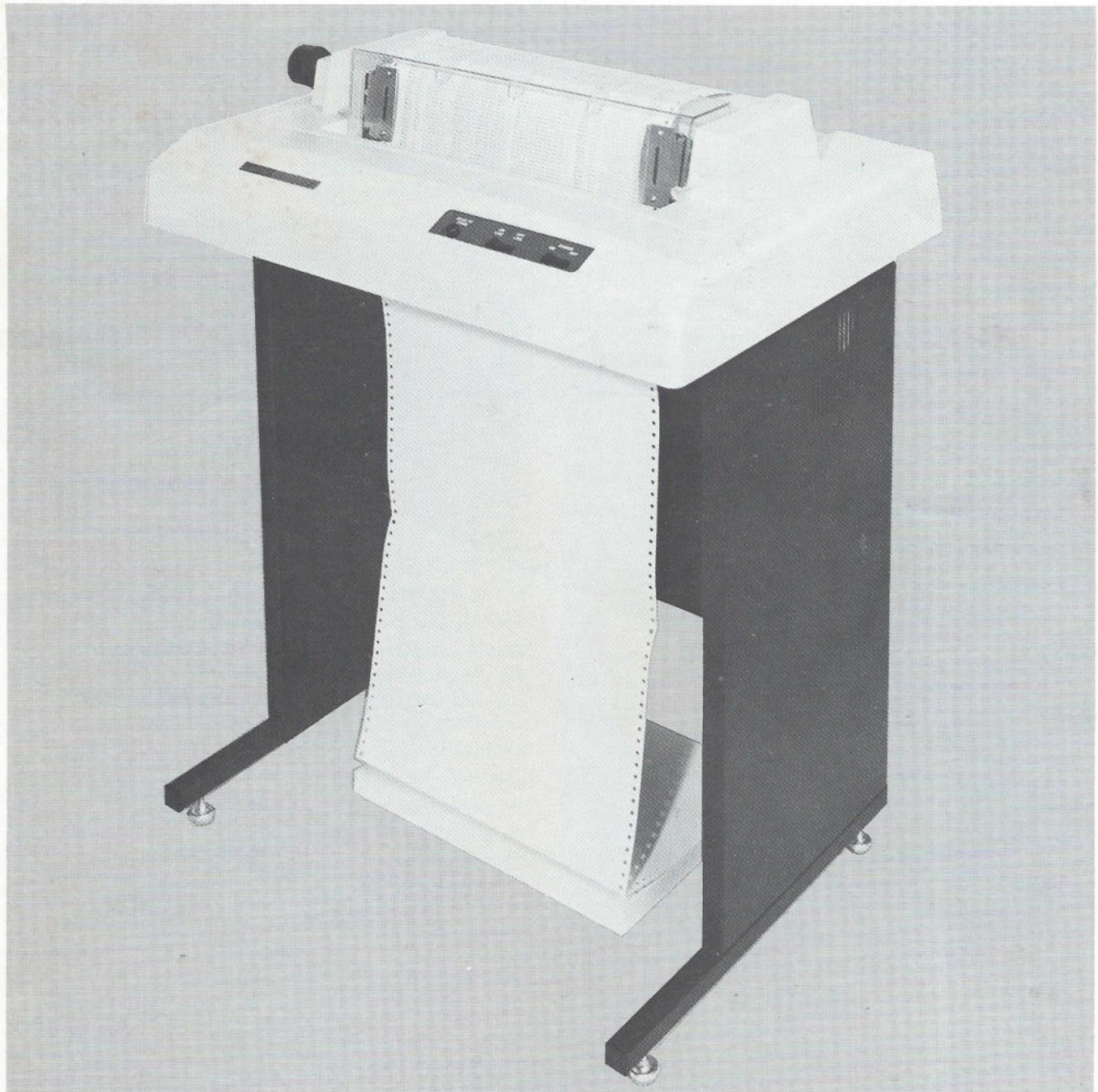
DIGITAL EQUIPMENT CORPORATION

# COMPONENTS GROUP

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SEPTEMBER 1975

## LA180 DECprinter I Matrix Printer



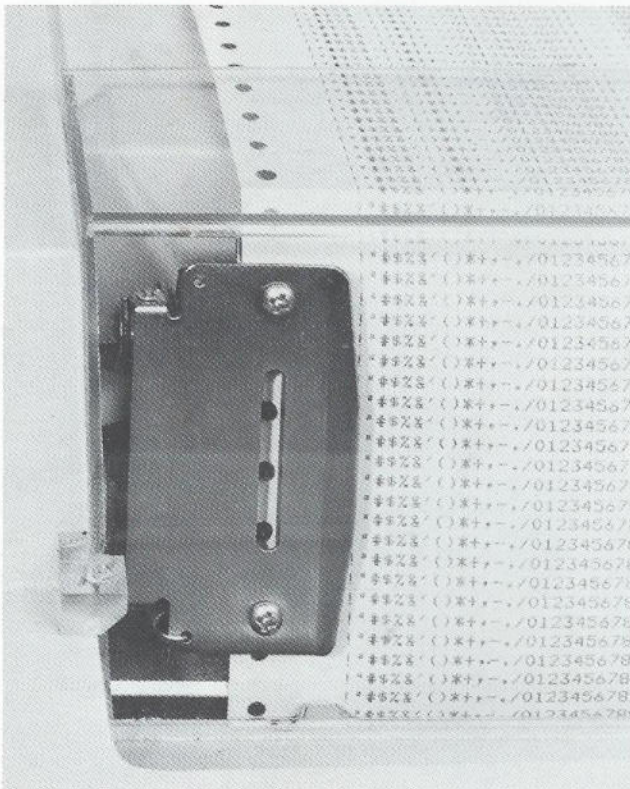
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### Standard Features

- 180 characters per second
- Parallel interface
- Accommodates 6-part form (.020 maximum thickness)
- Handles variable-width forms; 3 through 14 $\frac{1}{8}$  inches wide
- 132 column print; 10 characters per inch horizontal
- 6 lines per inch vertical spacing
- 128-character ASCII upper/lower case set
- 7 x 7 dot matrix
- Backspace capability
- Quiet operation
- Excellent character readability
- Fine vertical adjustment for accurate forms placement
- Paper-out switch
- Paper-out override
- Switch-settable forms length (11 lengths)
- Drives 100-foot cable

### Optional Features

- Paper basket
- Casters for rear of cabinet



### Description

The LA180 DECprinter I is a 180-cps hard-copy printer with an extensive array of standard features which makes it the most cost competitive matrix printer in the industry. DECprinter I extends the field-proven technology of DIGITAL's LA36 DECwriter II into applications demanding higher speed.

Among the many operator features which enhance its ease of use are a forms-length switch which permits any of 11 common-length forms to be accommodated, and a paper-out switch which results in an alarm sounding when the paper supply is depleted. Also featured are quiet operation, field-proven print head, the ability to accommodate multipart forms of varying width, and adjustable vertical positioning for accurate form placement.

### Operation

Upon power-up, the DECprinter I is initialized to execute incoming data, and the head moves to the left and stops at column 1.

Seven constant-current, solenoid-driven wires form the characters by scanning the page from left to right. The scanning motion is servo controlled, thereby assuring accurate dot placement and quiet, reliable operation. The machine prints a line at a time, with automatic carriage return upon receipt of a CR, LF, or FF command. Receipt of a DELETE command clears the line buffer.

### Carriage System

The carriage system transports the head along the horizontal axis of the machine, providing accurate horizontal positioning for character placement and precise print gap which can be adjusted for clean, clear impressions on a variety of form sizes of up to six parts.

The carriage is controlled by a servo system which assures accurate dot placement. The servo operates in the forward direction at 18 inches per second and has a carriage return of less than 275 milliseconds.

### Ribbon Feed System

The ribbon feed system is driven by the carriage motion only when the carriage is moving from left to right. This prevents ribbon smudging when the DECprinter is not printing.

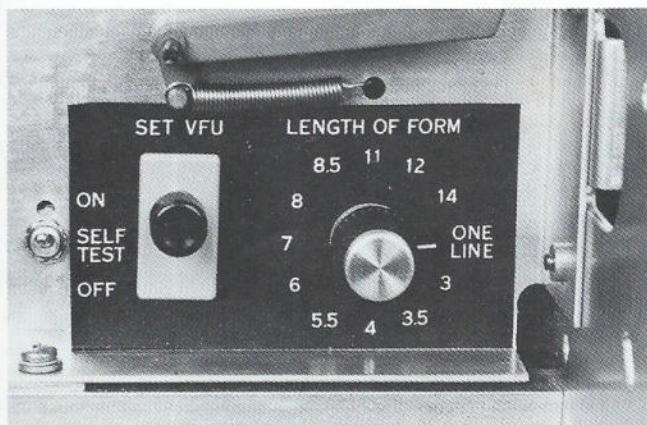
### Paper Feed System

The paper feed system utilizes tractors driven by a stepping motor. The tractor design provides four-pin engagement of the form on a flat bed, which ensures control and positive feeding of multipart forms. Paper may be accurately positioned vertically by pushing the fine vernier knob inward and rotating it in the desired direction. Both tractors are adjustable to provide precise placement of the horizontal data field.

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## Operator Controls

|                                   |                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power ON-OFF                      | Applies and removes AC power to entire machine.                                                                                                                                                                                                                                                                                                   |
| On-Line/<br>Off-Line              | Enables or disables communications.                                                                                                                                                                                                                                                                                                               |
| Head of Form                      | Feeds form to the next top-of-form or single line, if forms switch is set in single-line position and ON-LINE/OFF-LINE switch is in OFF-LINE position. If the paper-out indicator is set, printing can be continued to the next top-of-form by pressing the Head-of-Form button for each line or holding button in until Head-of-Form is reached. |
| Length of Form<br>(rotary switch) | Selects any of 11 form lengths.                                                                                                                                                                                                                                                                                                                   |
| Set VFU                           | Used in conjunction with the Length-of-Form switch to reset forms length.                                                                                                                                                                                                                                                                         |



|                                         |                                                                                                                                                  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Self Test                               | Will run a ripple test pattern locally if set in test position with machine in on-line mode.                                                     |
| Forms<br>Thickness<br>Adjustment        | Located on right side of printhead carriage; selects proper gap for 1-through-6-part form. Approximately 1 click for each part.                  |
| Right and Left<br>Tractor<br>Adjustment | Thumb screw may be loosened to allow tractor movement for various form widths.                                                                   |
| Fine Vertical<br>Tractor<br>Release     | Line-feed knob may be depressed inward and rotated in the appropriate direction for precise location of printing with respect to vertical zones. |

## Specifications

|                             |                                                                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Printing speed:             | 180 characters/second                                                                                                               |
| Number of columns:          | 132                                                                                                                                 |
| Printing characters:        | 96-character ASCII set                                                                                                              |
| PRINTING                    |                                                                                                                                     |
| Type:                       | Impact, 7 x 7 dot matrix                                                                                                            |
| Vertical spacing:           | 6 lines/inch                                                                                                                        |
| Horizontal spacing:         | 10 characters/inch                                                                                                                  |
| PAPER                       |                                                                                                                                     |
| Type:                       | 3 through 14 $\frac{7}{8}$ -inches wide, continuous business form, original and 5 copies (.020 inch (.5 mm) maximum pack thickness) |
| Single line skip:           | 32 ms                                                                                                                               |
| Slew speed:                 | 7.5 inches/second; 45 lines/second                                                                                                  |
| Carriage return time:       | 275 ms max.                                                                                                                         |
| MECHANICAL                  |                                                                                                                                     |
| Mounting:                   | 1 free-standing unit                                                                                                                |
| Size:                       | 33.2-inches (843.3 mm), high x 27.5-inches (698.5 mm) wide, x 20.0-inches (508 mm) deep                                             |
| Weight:                     | 102 lbs. (224.9 kg) approximate                                                                                                     |
| POWER                       |                                                                                                                                     |
| Input voltage and frequency | LA 180-PA 115 Vac, 60 Hz<br>LA 180-PB 230 Vac, 60 Hz<br>LA 180-PC 115 Vac, 50 Hz<br>LA 180-PD 230 Vac, 50 Hz                        |
| Heat dissipation:           | 400 w printing<br>100 w nonprinting                                                                                                 |
| ENVIRONMENT                 |                                                                                                                                     |
| Operating temperature:      | 10°C to 40°C (50°F to 104°F)                                                                                                        |
| Relative humidity:          | 10% to 90% non-condensing; maximum wet bulb 29°C                                                                                    |
| Ribbon:                     | Digital-specified nylon fabric, spool assembly (.5 inches wide x 60 yards long).                                                    |

## Information

For further information on DIGITAL component products, contact:

Digital Equipment Corporation, Components Group,  
One Iron Way, Marlborough, Massachusetts 01752. Call  
800-225-9480 toll-free from 8:30 AM to 5:30 PM our  
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