

INTRODUCING THE NEW 8/e



digital pdp8/e
 digital equipment corporation - maynard, massachusetts

MEMORY ADDRESS
 EMA RUN

F	D	E	IR0	IR1	IR2	M0 DR	DAT CONT	SW	PAUSE	BRK PROG	BRK	STATE
LNK	DT	IR1 BUS	NO INT	IGN	UN	IF0	IF1	IF2	DF0	DF1	DF2	STATUS
0	1	2	3	4	5	6	7	8	9	10	11	AC
												MD
												MQ
												BUS

OFF POWER PANEL LOCK

SW

SWITCH REGISTER

0	1	2	3	4	5	6	7	8	9	10	11
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ADDR LOAD EXTD ADDR LOAD

CLEAR CONT EXAM HALT SNG STEP

DEP

PDP-8/e SPECIFICATIONS

PHYSICAL

Table Top Model – Dimensions: 10½ inches high, 19 inches wide, and 24 inches deep. Weight: 100 pounds.

Rack Mountable Model – Dimensions: 10½ inches high, 19 inches wide, and 23¼ inches deep; can be mounted in any standard 19 inch commercial cabinet (standard cabinets supplied by Digital are 71⅞ inches high, 21⅞ inches wide with end panels, and 30 inches deep. Weight: 90 pounds.

ASR-33 Teletype – Dimensions: 33 inches high to top of console, 45 inches high to top of copyholder, 23 inches wide, 18 inches deep. Weight: 70 pounds (on stand).

ELECTRICAL

Processor – Power Requirements: 95-130V, 47-63 Hz, approx. 6 amperes, single phase. 185-250V, 47-63 Hz, approx. 3 amperes, single phase. Power Dissipation: 450 Watts.

Teletype – Input Voltage: 115 V AC ± 10%, 60 Hz ± 0.45 Hz; 230 V AC ± 10%, 50 Hz ± 0.50 Hz. Line Current Drain: 2 amperes, Power Dissipation: 150 watts.

FUNCTIONAL

Memory Cycle Time: 1.2 microseconds. Word Length: 12-bits. Core Memory Size: 4,096 words, expandable to 32,768 words (also available with 256 word increments of ROM and/or R/W memory).

ENVIRONMENTAL

PDP-8/e is designed to operate from +0 to +55 C and with a relative humidity of from 10 to 95% (without condensation).

CABLE REQUIREMENTS

The PDP-8/e I/O cable is a combination shield and ribbon or coaxial cable. The maximum length of the data bus I/O bus cable is 30 ft. using coaxial or 25 ft. using ribbon cable. Maximum length on the programmed I/O bus is 50 ft. using coaxial or 45 ft. using ribbon cable.

INSTALLATION PROCEDURE

PDP-8/e installation is performed by Digital personnel at the customer site. Customers also may send personnel to instruction courses on computer operation, programming, and maintenance conducted regularly in Maynard, Massachusetts, Palo Alto, California, and Reading, England.

POPULAR PDP-8/e CONFIGURATIONS AND PRICES

PS8 SYSTEM— An 8K programming system representing a significant advance in software development for small computers by providing capabilities previously available only on large machines.

Necessary Hardware:	
PDP-8/e (Rack mounted)	\$ 5,640
TC08 DECtape Controller	5,900
TU56 DECtape Transport	4,700
Additional 4K of Core Memory	3,000
Teletype	1,500
KD8/e Data Break Interface	500
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	\$21,240

8K SABR SYSTEM— An advanced one-pass symbolic assembler system for 8K to 32K PDP-8/e systems.

Necessary Hardware:	
PDP-8/e (Rack mounted)	\$ 5,640
Additional 4K of Core Memory	3,000
PC8-E High Speed Paper Tape Reader and Punch	3,900
Teletype	1,500
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	\$14,040

4K DISK AND MONITOR SYSTEM— A Keyboard-oriented monitor system consisting of monitor, and a comprehensive package of software including: a FORTRAN Compiler, Program Assembly Language (PAL-D), Edit Program (Editor), and a Dynamic Debugging Technique (DDT-8) program.

Necessary Hardware:	
PDP-8/e (Rack mounted)	\$ 5,640
DF32D DECdisk	6,000
KD8-E Data Break Interface	500
Teletype	1,500
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	\$13,640

4 USER FOCAL[®] SYSTEM— An on-line, conversational interpretive language system, used as a tool by students, engineers, and scientists in solving a wide variety of numerical problems.

Necessary Hardware:	
PDP-8/e (Table Top)	\$ 4,990
Teletype (4)	6,000
Additional 4K of Core Memory	3,000
DT8-EA Multiple Teletype Interface	1,000
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	\$14,990

PDP-8/e FEATURES

Digital's all new PDP-8/e is the most powerful, most expandable and most versatile 12-bit computer available today. Its low price and high performance make it the ideal system for a variety of uses. Extending all the way from minimal control units to fully expanded general purpose systems. It is fast, compact and easy to interface.

PDP-8/e offers features such as a unique internal bus system called OMNIBUS,TM which allows you to plug memory and processor options into any available slot location; the availability of 256 words of Read-Only or Read/Write memory; a 1.2 microsecond memory cycle time; the use of TTL integrated circuitry with MSI technology; expansion to 32,768 12-bit words of core storage; low cost mass storage expansion with DECdisk or DECtape; and a space and money saving packaging design.

In addition PDP-8/e provides a standard general-purpose hardware register; an optional program priority interrupt which greatly reduces the response time to service I/O interrupts; a two module interface for up to 4 Teletypes; a more powerful instruction set which includes an expanded EAE; a customer-proven software package which includes BASIC; FOCAL,[®] Digital's own conversational computer language; and DIBOL,TM our new COBOL-like business oriented language; and many other new processor options and peripherals.

PDP-8/e features at a glance:

- Increased speed-memory cycle time of 1.2 microseconds.
- A unique internal bus design called OMNIBUS which eliminates the need for back panel wiring. Processor options can be inserted in any available slot.
- A full line of over 60 options and peripherals immediately available.
- Availability of 256 word increments of Read-Only memory and/or Read/Write memory.
- A new packaging scheme which makes PDP-8/e physically smaller than its predecessor, PDP-8/I. And, with no predetermined locations needed for options, there is no wasted space in the logic panel.
- A Standard General Purpose register in the basic machine which becomes the MQ register when the EAE option is implemented.
- An optionally available advanced program priority interrupt which greatly reduces the response time to an interrupt request.
- A six bit byte swap instruction allowing faster and more convenient character handling.
- Six additional Processor IOT instructions which make flag manipulation and interrogation faster and easier.
- A two module interface for up to 4 Teletypes.
- TTL integrated circuit modules utilizing MSI technology.
- Over 7500 compatible PDP-8 Family computers in use for sharing programs through Digital's users group DECUS.
- Low-cost core memory expansion to 32,768 words and low-cost mass storage expansion with DECdisk, DECtape and IBM-compatible magnetic tape.
- Worldwide, dependable service.
- Program and maintenance training included.
- Fully parallel processor.
- Link feature to facilitate multiple precision arithmetic.
- Two's complement arithmetic.
- Full range of turn-key and applications oriented systems available.
- Over seven years of software development by Digital.
- Expanded hardware multiply/divide.
- Eight auto-index registers.
- Hardware Bootstrap Loader option.
- Pushdown List option.

DIGITAL EQUIPMENT CORPORATION, Maynard, Massachusetts, Telephone: (617) 897-5111 • ALABAMA, Huntsville • CALIFORNIA, Anaheim, Los Angeles, and Palo Alto • COLORADO, Denver • CONNECTICUT, Meriden • DISTRICT of COLUMBIA, Washington (College Park, Md.) • FLORIDA, Orlando • GEORGIA, Atlanta • ILLINOIS, Chicago • MASSACHUSETTS, Cambridge and Waltham • MICHIGAN, Ann Arbor • MINNESOTA, Minneapolis • MISSOURI, St. Louis • NEW JERSEY, Parsippany and Princeton • NEW MEXICO, Albuquerque • NEW YORK, Centereach (L.I.), New York City, (Englewood, N.J.), and Rochester • NORTH CAROLINA, Chapel Hill • OHIO, Cleveland and Dayton • PENNSYLVANIA, Philadelphia and Pittsburgh • TENNESSEE, Knoxville • TEXAS, Dallas and Houston • UTAH, Salt Lake City • WASHINGTON, Seattle • AUSTRALIA, Brisbane, Melbourne, Perth, and Sydney • CANADA, Edmonton, Alberta; Carleton Place, Ottawa, and Toronto, Ontario; and Montreal, Quebec • ENGLAND, London, Manchester, and Reading • FRANCE, Paris • GERMANY, Cologne and Munich • HOLLAND, The Hague • ITALY, Milan • JAPAN, Tokyo • SWEDEN, Stockholm • SWITZERLAND, Geneva

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