

PRICE LIST

NOVEMBER 1, 1966



PDP-9

NOVEMBER 1, 1966

BASIC PDP-9 SYSTEM		\$35,000
Central Processor with		
8,192 words of core memory		
18-bit word length		
1.0 μ sec cycle time		
Real-Time Clock		
Operator's Console		
300 cps Paper Tape Reader		
50 cps Paper Tape Punch		
10 cps Console Teleprinter, Model KSR-33		
PDP-9 SYSTEM WITH ASR-33	Add	300
PDP-9 SYSTEM WITH KSR-35	Add	1,600
PDP-9 SYSTEM WITH ASR-35	Add	3,100

MEMORY EXPANSION AND MEMORY OPTIONS

MEMORY EXTENSION CONTROL, TYPE KG09A*		4,000
Permits expansion of memory above 8,192 words		
8,192-WORD CORE MEMORY MODULE, TYPE MM09A		18,000
For expansion of memory in 8,192-word modules above the original 8,192 words. Requires Memory Extension Control, Type KG09A; up to three (3) Type MM09A modules may be added to a system, to bring memory size up to 32,768 words.		
MEMORY PARITY OPTION, TYPE MP09*		
Adds 19th bit plane to PDP-9 memory stack and provides a parity check on all transfers to and from memory (increases memory cycle time to 1.2 μ sec).		
Type MP09A, first 8K stack		3,000
Type MP09B, each additional 8K stack		500

MEMORY EXPANSION SUMMARY

Size	8K	16K	24K	32K
Without Parity	\$35,000	\$57,000	\$75,000	\$93,000
With Parity	38,000	60,500	79,000	97,500

*These options are housed in the basic PDP-9 cabinet.

CENTRAL PROCESSOR OPTIONS

EXTENDED ARITHMETIC ELEMENT, TYPE KE09A*	\$ 4,000
Adds microcoded instructions including multiply, divide, normalize and long shifts to basic PDP-9.	
AUTOMATIC PRIORITY INTERRUPT, TYPE KF09A*	5,000
Provides up to thirty-two (32) unique channels and four (4) hardware priority levels for nested interrupts and quick recognition of peripheral service requests. Also includes four (4) software priority levels.	
ADD-TO-MEMORY OPTION, TYPE KH09A*	1,000
Provides ability to add one (1) to any externally-specified memory location in one-cycle data break; also allows three-cycle sequential add-to-memory for high-speed signal averaging.	
POWER FAILURE DETECTION OPTION, TYPE KP09A*	1,000
Senses power line failures and provides interrupt in time to allow program to store all active registers. Provided with automatic restart.	
MEMORY PROTECTION OPTION, TYPE KX09A*	1,500
Provides boundary register and hardware modifications necessary for concurrent background and foreground processing.	

INPUT/OUTPUT OPTIONS

DIRECT MEMORY ACCESS CHANNEL MULTIPLEXER ADAPTER, TYPE DM09A	4,000
Provides second Memory Buffer Register and multiplexed priority channels for up to three (3) devices which use the Direct Memory Access Channel.	
INPUT/OUTPUT BUS ADAPTER, TYPE DA09A	2,500
Provides interface to PDP-9 I/O Bus for devices designed to interface to PDP-7 Information Collector.	
Each IOT implemented, up to 10	100
PDP-9/PDP-9 INTERPROCESSOR BUFFER, TYPE DB99A	4,000
Controls and buffers the flow of information between two PDP-9's, using the Data Channel facilities of both central processors. Transfer rates of up to 250,000 18-bit words/sec can be achieved without program intervention.	
PDP-9/PDP-8 INTERPROCESSOR BUFFER, TYPE DB98A	4,000
Controls and buffers the flow of information between one PDP-9 and one PDP-8, using the Data Channel facilities of both processors. Transfer rates in excess of 200,000 12-bit words/sec can be achieved without program intervention.	

*These options are housed in the basic PDP-9 cabinet.

PDP-9/PDP-7 INTERPROCESSOR BUFFER, TYPE DB97A \$ 4,000
Controls and buffers the flow of information between one PDP-9 and one PDP-7, using programmed transfers.

18-BIT OUTPUT RELAY BUFFER, TYPE DR09A 2,000
Buffer and 18 spdt relays actuated by computer command. Replaces Type 140 Output Relay Buffer.

MASS STORAGE DEVICES

DECTAPE CONTROL, TYPE TC02 7,400
Provides control for up to eight (8) DECTape Transports, Type TU55; utilizes Data Channel facility for direct transfer to or from memory of DECTape information.

DECTAPE TRANSPORT, TYPE TU55 2,350
Single DECTape transports capable of holding 3-1/2 inch reels of mylar tape. Tape runs at 80 ips, holds up to 3,000,000 bits of information and transfers at 15 kc character rate. Requires control, Type TC02.

AUTOMATIC MAGNETIC TAPE CONTROL, TYPE TC59
Controls up to eight IBM-compatible magnetic tape transports automatically. Buffers flow of information to or from computer via Data Channel facility. Can read or write in either BCD or binary modes.
With interface to DEC Transports (7-channel and 9-channel) 10,000

MAGNETIC TAPE TRANSPORT, TYPE TU20 12,000
Reads and writes IBM-compatible tape at 45 ips and 200/556/800 bpi. Requires control, Type TC59.

BLOCK TRANSFER DRUM, TYPE RM09
Provides block transfers to and from drum via the Direct Memory Access Channel. Data transfers every 67.2 μ sec, with 17.2 msec required for each 256-word block. Average access time is 8.65 msec. Includes buffers and controls, but requires DMA Multiplexer, Type DM09A.
Type RM09A, 32,768 words 24,600
Type RM09B, 65,536 words 26,600
Type RM09C, 131,072 words 28,600

PRINTERS AND PLOTTERS

AUTOMATIC LINE PRINTER AND CONTROL, TYPE 647
Prints 64 characters per column, 120 columns per line. Includes single line buffer. Also available at extra cost with up to 160 columns, and at 1000 lines per minute.
Type 647A, 300 lpm 28,900
Type 647B, 600 lpm 37,000

INCREMENTAL PLOTTER AND CONTROL, TYPE 350

Draws and labels graphs, charts, and plots at high speed. Uses California Computer Products (Calcomp) or equivalent incremental recorder.

<u>With Calcomp Model</u>	<u>Step Size (Inches)</u>	<u>Speed (Steps/ Minute)</u>	<u>Paper Width (Inches)</u>	<u>Price</u>
563	0.01	12,000	31	13,400
	0.005	18,000	31	13,400
565	0.01	18,000	12	8,900
	0.005	18,000	12	8,900
Plotter Control only				3,000

DATA COMMUNICATIONS EQUIPMENT

MULTI-STATION TELETYPE CONTROL, TYPE LT09A \$ 1,200

Provides control for up to 5 Teletype stations

Each line unit, Type LT09B (one required per station) 1,200

Teletype model KSR-33 900

Teletype model ASR-33 1,200

Teletype model KSR-35 2,500

Teletype model ASR-35 4,000

DATA COMMUNICATIONS SYSTEM, TYPE 680

Provides stand-alone data communications system that can be interfaced to PDP-9 via Interprocessor Buffer, Type DB98A. See PDP-8 price list for pricing details.

CARD INPUT EQUIPMENT

100 CPM CARD READER AND CONTROL, TYPE CR01E 4,100

Reads standard 80-column cards from a 430-card capacity bin at 100 cards per minute.

200 CPM CARD READER AND CONTROL, TYPE CR02B 14,900

Reads standard 80-column cards at 200 cards per minute in either alphanumeric or binary modes.

CATHODE RAY TUBE DISPLAY OPTIONS

PRECISION CRT DISPLAY, TYPE 30D 13,400

Plots point-by-point data on a 16-inch cathode ray tube. Includes separately variable 10-bit X and Y coordinates and programmable intensity control.

SYMBOL GENERATOR, TYPE 33 4,900

Plots symbols on a 5 x 7 dot matrix in one of four sizes on Type 30D Display. Average plotting time is 140 μ sec.

OSCILLOSCOPE DISPLAY, TYPE 34H*

Plots point-by-point data on X and Y plotting scope such as Tektronix RM503 or Hewlett-Packard equivalent. Uses 10 bits per axis, has intensity control.

Control only	\$ 2,800
With Tektronix RM503 Scope	3,600
With Tektronix RM564 Storage Scope	4,540

PRECISION INCREMENTAL CRT DISPLAY, TYPE 340C

30,000

Plots points, lines, vectors, and characters on a 9-3/8 inch square raster with 1024 points per axis. Operates on cycle-stealing basis via DMA channel. Contains subroutine interface, Type 347, as standard equipment for manipulation of nonconsecutive display tables. Requires DMA Multiplexer, Type DM09A, to interface to PDP-9.

Modification of Type 340C to accommodate up to four (4) Type 343 Slave Displays.	4,970
--	-------

CHARACTER GENERATOR, TYPE 342

Plots standard ASCII-code characters on a 5 x 7 dot matrix in one of four sizes on Type 340C Display. Average plotting time is 35 μ sec per character. Two character sets are available.

First 64-character set	7,700
Second 64-character set	3,900

SLAVE DISPLAY, TYPE 343

12,700

Slave display to Type 30D or Type 340 Displays. Includes 25 feet of remote cable.

Extra cabling for slave display, per foot	1.50
---	------

HIGH SPEED LIGHT PEN, TYPE 370

1,625

Uses fiber optic light pipe and photo-multiplier system for fast detection of displayed information.

A-D AND D-A OPTIONS

GENERAL PURPOSE ANALOG-TO-DIGITAL CONVERTER, TYPE 138E

2,500

Used to convert input analog voltages into digital numbers from 6 to 12 bits. Conversion time varies with accuracy and resolution from 9 to 35 μ sec.

GENERAL PURPOSE MULTIPLEXER CONTROL, TYPE 139E

2,000

Permits up to 24 channels of analog signals to be read by analog-to-digital converter. Channels can be selected in sequence or by individual address. Prices of switches not included.

MULTIPLEXER EXPANSION, TYPE AA03B

300

Allows Type 139E to be expanded to 64 channels.

*These options are housed in the basic PDP-9 cabinet.

A100 SWITCHES FOR MULTIPLEXER CONTROL

Each module contains two multiplexer switches. For details of these switches and directions for their use, see FLIP CHIP Module Catalog, C-105.

A100 Solid-State Analog Switch Module	\$ 100
A101 Solid-State Analog Switch Module	106
A102 Solid-State Analog Switch Module	86
A103 Solid-State Analog Switch Module	78

(Note: for most applications, the A103 is recommended.)

DIGITAL-TO-ANALOG CONVERTERS, TYPE AA01A

Three independent channels convert 12-bit digital numbers into corresponding analog signals. Output amplifiers are available on request.

One D/A Converter	1,600
Two D/A Converters	2,200
Three D/A Converters	2,800
A201 Operational Amplifier (Requires Precision Power Supply H702.)	260
H702 Precision Power Supply	350

CABINETS

19-INCH CABINET, CAB-1B, WITHOUT SIDE PANELS	500
SIDE PANELS, PER PAIR	200
HOLD-DOWN BARS, TYPE KM09	
Total System except Extra Memory	900
Each Additional 8K Memory Module	300

All prices are quoted F.O.B. Maynard, Massachusetts, and apply in continental U.S. only. Federal, state, and local taxes, when applicable, are extra. Option prices are for factory installation only: field installation prices will be quoted upon request. All prices are subject to change without notice.



SALES AND SERVICE

MAIN OFFICE AND PLANT

146 Main Street, Maynard, Massachusetts 01754
Telephone: From Metropolitan Boston: 646-8600
Elsewhere: AC617-897-8821
TWX: 710-347-0212 Cable: Digital Mayn. Telex: 920456

DOMESTIC

NORTHEASTERN

NORTHEAST OFFICE:

146 Main Street, Maynard, Massachusetts 01754
Telephone: (617)-646-8600 TWX: 710-347-0212

BOSTON OFFICE:

295 Main Street, Cambridge, Massachusetts 02142
Telephone: (617)-491-6130 TWX: 710-320-0468

ROCHESTER OFFICE:

455 Empire Boulevard, Rochester, New York 14609
Telephone: (716)-482-2310 TWX: 510-253-3078

CONNECTICUT OFFICE:

125 College Street, New Haven, Connecticut 06510
Telephone: (203)-777-5797 TWX: 710-465-0692

MID-ATLANTIC

NEW YORK OFFICE:

Route 46, Parsippany, New Jersey 07054
Telephone: (201)-335-3300 or (212)-279-4735
TWX: 510-235-8319

PHILADELPHIA OFFICE:

3500 Hampton Medical & Professional Bldg.
3500 Market Street Pike, Southampton, Pa. 18966
Telephone: (215)-357-9450 (9451) TWX: 510-667-1724

WASHINGTON OFFICE:

Executive Building
7100 Baltimore Ave., College Park, Maryland 20740
Telephone: (301)-779-1100 TWX: 710-826-9662

SOUTHERN

HUNTSVILLE OFFICE:

Suite 41 — Holiday Office Center
3111 Memorial Parkway S.W., Huntsville, Ala. 35801
Telephone: (205)-881-7730 TWX: 510-579-2122

HOUSTON OFFICE:

3417 Milam Street, Suite A, Houston, Texas 77002
Telephone: (713)-523-2529 TWX: 910-881-1651

MIDWEST

PITTSBURGH OFFICE:

300 Seco Road, Monroeville, Pennsylvania 15146
Telephone: (412)-351-0700 TWX: 710-797-3657

CHICAGO OFFICE:

910 North Busse Highway, Park Ridge, Illinois 60068
Telephone: (312)-825-6626 TWX: 910-253-0342

ANN ARBOR OFFICE:

3853 Research Park Drive, Ann Arbor, Michigan 48104
Telephone: (313)-761-1150 TWX: 810-223-6053

WESTERN

LOS ANGELES OFFICE:

801 E. Ball Road, Anaheim, California 92805
Telephone: (714)-776-6932 or (213)-625-7669
TWX: 910-591-1189

SAN FRANCISCO OFFICE:

2450 Hanover Street, Palo Alto, California 94304
Telephone: (415)-326-5640 TWX: 910-373-1266

SEATTLE OFFICE:

McAusland Building, 10210 N.E. 8th Street
Bellevue, Washington 98004
Telephone: (206)-454-4058 TWX: 910-443-2306

DENVER OFFICE:

Suite 205 —
5200 South Quebec Way, Englewood, Col. 80110
Telephone: (303)-771-1180 TWX: 910-931-2562

INTERNATIONAL

CANADA

Digital Equipment of Canada, Ltd.
150 Rosamond Street, Carleton Place, Ontario, Canada
Telephone: (613)-257-2615 Telex: 013-442

Digital Equipment of Canada, Ltd.
39 Dundas Road East, Cooksville, Ontario, Canada
Telephone: (416)-279-1690 Telex: 022-9665

GERMANY

Digital Equipment GmbH
5 Koeln, Neue Weyerstr. 10, West Germany
Telephone: 23 55 01 Telex: 888 2269
Telegram: Flip Chip Koeln
Digital Equipment GmbH
8 Muenchen, Theresienstr. 29, West Germany
Telephone: 29 94 07 and 29 25 66 Telex: 841 24226
Telegram: Digital Muenchen

ENGLAND

Digital Equipment Corp. (U.K.) Ltd.
3 Arkwright Road, Reading, Berkshire, England
Telephone: Reading 57231 Telex: 851-84327
Digital Equipment Corporation (UK) Ltd.
The Precinct
46 Bolton Road, Walkden, Manchester, England
Telephone: Walkden 5660

FRANCE

Equipement Digital
65 Rue du Faubourg St. Honore, Paris 8^e, France
Telephone: 256-1137, 256-1328 Telex: 842-26705

AUSTRALIA

Digital Equipment Australia Pty. Ltd.
89 Berry Street
North Sydney, New South Wales, Australia
Telephone: 92-0919 Telex: 790AA-20740
Cable: Digital, Sydney

Digital Equipment Australia Pty. Ltd.
36 Outram Street
West Perth, Western Australia
Telephone: 214-993

JAPAN

Rikei Trading Co., Ltd.
Kozato Kaikan Bldg.
No. 18-14, Nishishimbashi 1-chome
Minto-ku, Tokyo, Japan
Telephone: 5915246 Telex: 7814208

SWEDEN

Telare AB
Box #49025, Stockholm 49, Sweden
Telephone: RA-60 01 Telex: 815-10178