DIGITAL EQUIPMENT CORPORATION



Price List

NOVEMBER 1, 1970



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The Number		Prereduisite			System Code		Month Connies	Sont of Main Control	rates installation Discount
			/ &	/ 2	ÞŠ	/ કે	1/20	3/40	8/08
PDP-11/20	Computer Consisting of: (1) KA11 Central Processor (1) 4K 16-bit Read/Write Memory (1) Programmer's Console (1) Basic Mounting Box and Power Supply (1) ASR-33 Teletype and Control	None		Α	4	0	125		Note 2 Yes
PDP-11/20-AA PDP-11/20-AB PDP-11/20-BA	Above — rack mountable, slides included 115V 60 Hz Same except 230V 50 Hz Above — table top model, cover included 115V 60 Hz		10,800 10,800 10,800						
PDP-11/20-BB PDP-11/20-CA PDP-11/20-CB	Same except 230V 50 Hz Above—rack mounted, slides and cabinet included 115V 60 Hz Same except 230V 50 Hz		10,800 11,450 11,450						
CODE CYCDA	OF.								
CORE STORA	4K Words of 16-bit Read/Write Core Memory — 1.2 μ s cycle time; includes system unit and Unibus connector	PDP-11/20	3,500	В	1	0	25	150	Note 2 Yes
MM11-F	4K Words of 16-bit Read/Write Core Memory — 950 nsec cycle time; includes systems unit and Unibus connector. Supplied interleaved if ordered in multiples of 8K.	PDP-11/20	3,500	В	1	0	25	150	Note 2 Yes
MM11-H	1K Words of 16-bit Read/Write Core Memory — 950 nsec cycle time; includes system unit and Unibus connector	PDP-11/20	2,500	В	1	_	20	150	Note 2 Yes
MM11-J	2K Words of 16-bit Read/Write Core Memory — 950 nsec cycle time; includes system unit and Unibus connector	PDP-11/20	2,750	В	1	-	23	150	Note 2 Yes
MR11-A	1K Words of 16-bit Read-Only Braid Memory — 350 nanoseconds access time; includes system unit and Unibus connector	PDP-11/20	1,500	B,C	1	0	18	150	Note 2
	Reweaving of MR11-A; includes assembly with diodes	MR11-A	350	B,C	_	-		_	Note 2 Yes
	Interleaved MemoryIncreases effective memory speed by alternate addressing and overlapping read/write cycles in independent banks of 4K memories. Available in multiples of 8K words.								
MM11-EX	8K Words Interleaved Memory; 900 nsec cycle time.	PDP-11/20	7,000	В	1	0	50	300	Note 2 Yes
MM11-FX	8K Words Interleaved Memory; 490 nsec cycle time when transferring into memory; 800 nsec cycle time when transferring out of memory.	PDP-11/20	7,000	В	1	0	50	300	Note 2 Yes
DIODE MEMO	RY								
M792	32-Word Read-Only Diode Memory; customer programmable by the removal of selected diodes	PDP-11/20	300	G	0	1	_	_	Note 3 Yes
BM792-YA	Paper-tape (TTY or a High-Speed Reader) Bootstrap Loader	PDP-11/20	300	G	0	1	2	60	Note 2 Yes
BM792-YB	Bulk Storage Bootstrap Loader	PDP-11/20	300	G	0	1	2	60	Note 2 Yes
MAGNETIC TA	APE								
TC11	Controller for up to Four TU56 Dual DECtape Transports	PDP-11/20	3,000	Н	_	_	12	240	Note 2 Yes
TU56	Dual DECtape Transport 115/230V, 50/60 Hz	TC-11	4,700	Н	_		22	60	Note 2 Yes
TU56-H	Single DECtape Transport 115/230V, 50/60 Hz	TC-11	3,500	Н	_	_	22	60	Note 2 Yes

INDUSTRY-COMPATIBLE MAGNETIC TAPE

TM11/TU10

Vacuum-column buffered Tape Transport and Control for either 7- or 9-channel, 1/2-inch industry-compatible magnetic tape: 800 BPI, 45 IPS (7-channel model also has provision for 556 and 200 BPI, program selectable). Up to seven additional slave tape transports may be added. Cabinet included.

The following configurations are available:

		115V, 60Hz	230V, 60Hz	115V, 50Hz	230V, 50Hz								
	Control Unit	TM11-A	TM11-A	TM11-B	TM11-B								
	9-track Master Transport	TU10-EA	TU10-EB	TU10-EC	TU10-ED								
	9-track Slave Transport	TU10-EE	TU10-EF	TU10-EH	TU10-EJ								
	7-track Master Transport	TU10-FA	TU10-FB	TU10-FC	TU10-FD								
	7-track Slave Transport	TU10-FE	TU10-FF	TU10-FH	TU10-FJ								
TU10	7 or 9-Channel, Maste above).					PDP-11/20 TM11	6,950	Н	-	-	70	400	Note 2 Yes
TM11	Tape Controller for up designation from abov	•	Transports (s	elect model		PDP-11/20	3,000	Н	_	-	25	240	Note 2 Yes

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Troe Number		Presentisies			System Code		The day	Field Install	10/10/10/10
The				/wom		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	South States		ie seculi.
OTATING	MEMORY								
F11	Controller for up to 8 RS11 Disks (includes cabinet)	PDP-11/20	5,000	Н	_	_	25	220	Note 2 Yes
S11	256K Word Fixed-Head Disk Drive; 16 $\mu \rm{sec/word}$ transfer; 17 msec average access time	RF11	9,000	Н	-	_	40	240	Note 2 Yes
S11-A	Same as above; 230V, 50Hz.	PDP-11/20 RF11	9,000	Н	_		40	240	Note 2 Yes
K02	600K-Word DECpack Removable Disk Cartridge System. 22.16 usec/word transfer rate; 80 msec average access time; Expandable to 2.4 million words.	PDP-11/20 RK11	7,000	Н	-	_	60	260	No
K02-A	Same as above; for 230V, 50Hz	PDP-11/20 RK11	7,000	Н		-	60	260	No
K11	Controller for up to four RKO2 DECpack disk cartridge drives.	PDP-11/20	5,900	Н		_	40	240	No
564	64K-Word DECdisk Fixed-Head Disk Drive; 16 usec/word transfer rate; 16.1 msec average access time. Expandable to 262K words.	PDP-11/20 RC11	4,500	Н		_	15	240	Note 2 Yes
S64-A	Same as above; for 230V, 50Hz.	PDP-11/20 RC11	4,500	Н			15	240	Note 2 Yes
C11	Controller for up to four RS64 DECdisks.	PDP-11/20	2,450	Н		_	20	150	Note 2 Yes
XTENDED	ARITHMETIC ELEMENT								
E11-A	Extended Arithmetic Hardware Element; Multiply, Divide, multiple shifts, normalizes—handles signed numbers	PDP-11/20	1,800	В	1	0	7	80	Note 2 Yes
	Card Reader; for 80 -column punched cards; rate 200 cards per minute	PDP-11/20	4,500	G	_	1	50	240	No
R11		PDP-11/20 PDP-11/20	4,500 4,500	G G	_	1	50 50	240 240	No No
R11-A	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top)		·		_	1			
R11 R11-A SLOCKS	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top)		·		 0	1 1 0			
R11-A R11-A E LOCKS W11-L	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz)	PDP-11/20	4,500	G	_ _ 0	1 1 0	50	240	No Note 2
R11-A LOCKS W11-L APER TAP	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control	PDP-11/20	4,500	G			50	240	Note 2 Yes
R11-A LOCKS W11-L APER TAP	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz)	PDP-11/20	4,500 250	G D	· Note	1)	2	240 50	Note 2 Yes Note 2 Yes Note 2
111-A LOCKS W11-L APER TAP	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz	PDP-11/20 PDP-11/20	4,500 250 3,900	G D (See G	Note O	1)	2	50300	Note 2 Yes
R11-A LOCKS W11-L APER TAP 111 11-A R11 722	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) EAND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11	4,500 250 3,900 3,900 2,400 100	G (See G G G	Note 0 0 0 —	1) 1	2 2 25 25 15	240 50 300 300 150	Note 2 Yes Note 2 Yes Note 2 Yes Note 2 Yes Note 2 Yes Note 2 Yes
R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R11-A	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) EAND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20	4,500 250 3,900 3,900 2,400 100 400	G (See G G	Note O O	1) 1	2 2 25 25 15 -	240 50 300 300 150 — 60	Note 2 Yes Note 2 Yes
R11-A R11-A LOCKS W11-L APER TAP 11 11-A 11 722 11-A 33-DC	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) EAND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500	G (See G G G	Note 0 0 0 —	1) 1 1	2 2 25 25 15 6 30	240 50 300 300 150 — 60 120	Note 2 Yes Note 2 Yes Note 2 Yes
R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R122 R11-A R33-DC R33-DD	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) EAND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz ASR-33 Teletype 230V 50 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,500	G (See G G G	Note 0 0 0 —	1) 1 1	2 2 25 25 15 — 6 30	300 300 150 — 60 120 120	Note 2 Yes Note 2 Yes Note 0 No
R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R11-A R11 R33-DC R33-DD R33-CC	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) EAND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz ASR-33 Teletype 230V 50 Hz KSR-33 Teletype 115V 60 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,500 1,200	G (See G G G	Note 0 0 0 —	1) 1 1 - 1 -	2 2 25 25 25 15 — 6 30 30 25	300 300 150 — 60 120 120 80	Note 2 Yes Note 2 Yes Note 0 No
C11-A C11-A R11 722 -11-A C33-DC C33-DD C33-CC C33-CD	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz KSR-33 Teletype 230V 50 Hz KSR-33 Teletype 230V 50 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,200 1,200	G (See G G G	Note 0 0 0 —	1) 1 1	50 2 25 25 25 15 — 6 30 30 25 25 25	300 300 150 — 60 120 80 80	Note 2 Yes Note 2 Yes Note 0 No
R11-A R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R11-A R11 R122 R11-A R13-DC R13-CC	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz KSR-33 Teletype 230V 50 Hz KSR-33 Teletype 230V 50 Hz KSR-33 Teletype 215V 60 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A KL11A KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,200 1,200 4,500	G (See G G G	Note 0 0 0 —	1) 1 1 - 1 -	50 2 25 25 25 15 — 6 30 30 25 25 25 25 25	300 300 150 — 60 120 80 80 150	Note 2 Yes Note 2 Yes Note 0 No No No
R11-A R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R122 R11-A R33-DC R33-CC R33-CC R33-CC R35-DC R35-DC R35-DC R35-DC	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR1 1 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz ASR-33 Teletype 230V 50 Hz KSR-33 Teletype 230V 50 Hz ASR-35 Teletype 115V 60 Hz ASR-35 Teletype 230V 50 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A KL11A KL11A KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,200 1,200 4,500 4,500	G (See G G G	Note 0 0 0 —	1) 1 1 - 1 -	50 2 25 25 25 15 — 6 30 25 25 25 25 25 25 25	240 50 300 300 150 — 60 120 80 80 150 150	Note 2 Yes Note 2 Yes Note 0 Note 1
R11-A R11-A R11-A R11-A R11-A R11 R11-A R11 R11-A R11 R11-A R11 R122 R11-A R13-DC R13-CC	Card Reader; for 80 -column punched cards; rate 200 cards per minute (table top) 230V, 50 Hz model Real Time Clock — Line Frequency. Causes interrupt each 16.6 ms (60Hz) or 20 ms (50Hz) E AND TELETYPE High Speed Paper Tape Reader (300 cps) and Punch (50 cps) with control 115V 60 Hz Same as PC11 except that it requires 115V 50 Hz 230V requires H-722 High Speed Paper Tape Reader (300 cps) with Control 115V 50/60 Hz 230V requires H-722 Transformer 230V to 115V 50/60 Hz required for 230V operation of PC11 and PR11 Teletype Control for LT33 or LT35 including address select and interrupt control ASR-33 Teletype 115V 60 Hz KSR-33 Teletype 230V 50 Hz KSR-33 Teletype 230V 50 Hz KSR-33 Teletype 215V 60 Hz	PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PDP-11/20 PC11 or PR11 PDP-11/20 KL11A KL11A KL11A KL11A KL11A	4,500 250 3,900 3,900 2,400 100 400 1,500 1,200 1,200 4,500	G (See G G G	Note 0 0 0 —	1) 1 1 - 1 -	50 2 25 25 25 15 — 6 30 30 25 25 25 25 25	300 300 150 — 60 120 80 80 150	Note 2 Yes Note 2 Yes Note 2 Note 0 No No No

Tre Winder		P. C.	A. P. C.	Mount	System Code	Inouting Sasas	Month We wire ment	Field have lance	mileje saj neosin sues
LINE PRINT	ERS								
LP11 LP11-FA LP11-FB LP11-HA LP11-HB LP11-JA LP11-JB LP11-KA LP11-KB	300 lpm, 80-col. line printer includes control logic 80 Col. Line Printer, 64 Char. 115V 60 Hz 80 Col. Line Printer, 64 Char. 230V 50 Hz 80 Col. Line Printer, 96 Char. 115V 60 Hz 80 Col. Line Printer, 96 Char. 230V 50 Hz 132 Col. Line Printer, 64 Char. 115V 60 Hz 132 Col. Line Printer, 64 Char. 230V 50 Hz 132 Col. Line Printer, 64 Char. 230V 50 Hz 132 Col. Line Printer, 96 Char. 115V 60 Hz 132 Col. Line Printer, 96 Char. 230V 50 Hz	PDP-11/20 " " " " " " "	12,000 12,000 13,500 13,500 17,500 17,500 19,000	F,G	0	1	55	200	No
			,						
INTERFACE	EQUIPMENT			10	See Na	to 11			
ÓR11-A	General-purpose digital interface to the PDP-11, permits bidirectional transfer of 16 bits in parallel from the user's device to the PDP-11 UNIBUS. Contains all necessary interrupt, address, and control signals to allow the user to interface directly to the PDP-11. Includes cable connectors	PDP-11/20	400	G '	0	1	4	-	Note 3 Yes
DD11-A	Peripheral Mounting Panel (includes UNIBUS Connector Module — M920) Prewired System Unit for 4 small peripheral controllers	PDP-11/20	175	В	1		-	50	Note 2 Yes
BB11	Blank Mounting Panel — Wired for bus and power (Does not include UNIBUS connector Module — M920) For custom interface design and mounting	None	90	В	1	_	_	50	Note 3 Yes
M783	UNIBUS Transmitter Module; UNIBUS to Device interface drivers, (12 drivers)	None	30		_	_	-	_	Note 3 Yes
M784	UNIBUS Receiver Module; UNIBUS to Device interface receivers, (16 receivers)	None	30	_	-	-		_	Note 3 Yes
M785	UNIBUS Transceiver Module; UNIBUS/Device interface drivers and receivers (8 receivers and 8 drivers)	None	35		-	_	_		Note 3 Yes
M786	General-Purpose Interface Module containing 16-bit Flip-Flop Register with bus receivers and transmitters	None	175	-	_	_	_		Note 3 Yes
M105 M782	Address Selector Module (4 Addresses) Interrupt Control Module (2 interrupt capability)	None	65 100	_	_	_	_	_	Note 3 Yes Note 3
M920	UNIBUS Connector Module (Jumper module to interconnect System	None None	45	_	_	_	_	_	Yes Note 3
BC11A	Units) UNIBUS Cable Length BC11A-2 2' BC11A-5 5' BC11A-8F 8'6" BC11A-10 10' BC11A-15 15'	None	80 90 100 110 125	_ _ _	_ _ _ _	_ _ _ _	_ _ _		Yes Note 3 Yes
	BC11A-25 25'		160			-	_	_	
CRT DISPLA									
VT01-A	Tektronix 611 Storage Tube Display	AA11-D AA11-A +(2) BA614	3,000	_	_	_	66	60	No
VR01A	Tektronix RM503 Oscilliscope Display	AA11-D+ AA11-B+	1,000	Н	_	-	-		_ n
VR14	7" x 9" Point Plot Display	(2) BA614 AA11-D+ AA11-C+ (2) BA614	2,450	H	_	_	7 18	60 100	No No
VR14A	Same except 230V, 50/60 Hz	AA11-D+ AA11-C+ (2) BA614	2,450	Н	-	-	18	100	No
AA11-D	Digital to Analog Control. Space available for 4 BA614 Analog-to-Digital converter modules for scope control	PDP-11/20	1,000	В	1	0	6	_	Note 2 Yes

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			<i>s</i> /	/			Months Required	Continy Wallens Field A Aces wang	
Trenume		Perennising		/	System Code	Sign of the state			Pates "Istalia" Sp. Scount Sp. Scount Sp. Scount States
ِيّ Crt displ <i>i</i>	/ nve	/ 420	/ de sol	/ \$		/ 6		\$\\i?	
BA614	Digital to Analog Converter; (4) mounts in AA11-D.	AA11-D	375	_	_		1	60	Note 2
AA11-A	Control for 611 scope. Space available for 2 more BA614; mounts in AA11-D.	AA11-D+	'600				6	60	Yes Note 2
AA11-B	Control for RM503 Scope. Space available for 2 more BA614;	(2) BA614 AA11-D+	600				6	60	Yes Note 2
AA11-C	mounts in AA11-D	(2) BA614 AA11-D							Yes
	Control for VR12 Scope. Space available for 2 more BA614; mounts in AA11-D	(2) BA614	600	_	_		6	60	Note 2 Yes
/T06	Alphanumeric CRT visual display terminal with keyboard. Half or full duplex, 110 Baud to 2400 Baud switch selectable.— table top model	DE11-A + KL11-E or	4,900	_	_	_	35	60	No
		DC11-AA+ DC11-AB							
ANALOG TO	INIGITAL								
AD01-D	Analog to Digital Conversion Subsystem. 10 bit unipolar or 10 bit plus sign (optional) analog to digital converter, multiplexer control for up to 32 channels of single-ended, high-level inputs; with interface and power supply. Program selectable input ranges of: 0 to \pm 1.25V, \pm 2.5V, \pm 5.0 or \pm 10.0V unipolar; 0 to \pm 1.25V, \pm 2.5V, \pm 10.0V bipolar.	PDP-11/20	2,400	Н	0	-	25	140	Note 2 Yes
	Options — mount in A DO1-D A124 Mux Module 4 channels	AD01-D	60		_	_	N/C	60	Note 2 Yes
	AHO4 Sample & Hold	AD01-D	300	_		_	6	60	Note 2
	AH05 Sign Bit, 11th Bit, 2's complement	AD01-D	400	_	-	-	6	60	Yes Note 2 Yes
									res
DIGITAL TO .A11-D	Digital to Analog Converter Subsystem. 11 bits plus sign digital to analog conversion with up to 4 channels available with an adjustable full-scale output voltage of 0 to ±10V at 10 ma. Space available for 2 more BA614	PDP-11/20	1,000	В	1	0	6	-	Note 2 Yes
3A614	Digital to Analog Converter — mounts in AA11-D.	AA11-D	375	_	-	-	1	60	Note 2 Yes
COMMUNIC	ATIONS								
OC11-AA	Dual Asynchronous Serial Line System Unit and Clock for mounting 2 DC11DA Module Sets. 110, 134.5, 150, 300 Baud (typical speeds with 103 modem, program selectable)	PDP-11/20	250	В	1	0		20	Note 2 Yes
OC11-AB	Same as DC11AA above but 110, 150, 1200 and 1800 Baud (typical 202 speeds, program selectable)	PDP-11/20	250	В	1	0		20	Note 2 Yes
OC11-AC	Same as DC11AA except 110, 150, 600 and 1200 Baud (typical European, program selectable)	PDP-11/20	250	В	1	0	_	20	Note 2 Yes
OC11-DA	Full Duplex Serial Module Set for DC11A (DC11A accomodates 2 ea) with EIA/CCITT termination suitable for direct use with 103 or 202 modem. Handles 5, 6, 7, or 8 bit codes with 1 or 2 stop bits.	DC11-AA AB or AC	600	_	_	-	_	30	Note 2 Yes
312A	Asynchronous Null Modem allows direct connection of any peripheral having an EIA232 interface with a DC11. Also allows direct computer-to-computer data transfers between two PDP-11's. Each must have a DC11DA and the machines must not be separated by greater than 50 feet.	DC11D	60	-	_	-			Note 2 Yes
DE11-A	EIA level, RS-232-C line adaptor for VTO6 or other EIA level devices (Requires KL11 interface). Mounts on KL11.	KL11 series interfaces	100		-	_	_		Note 2 Yes
(L11-B	Full Duplex Asynchronous Line Interface Unit; 150 Baud	_	400	G	_	-	-	_	Note 2 Yes
(L11-C	Same as KL11-B, except 300 Baud	_	400	G		-	-	_	Note 2 Yes
	Same as KL11-B, except 600 Baud	_	400	G	_	-		_	Note 2 Yes
(L11-D									15.5
KL11-D KL11-E	Same as KL11-B, except 1200 Baud send, 110 Baud receive	_	400	G			_	-	Note 2 Yes

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Pole quisiles	' / ,	System Unit	Spaces Romingulo Moniny M. Minimulo Coniny M.	Field Walls on S.	/ _{II}
/ day	/ ¿¿° / 2		8 / 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		in sales

MOUNTING BOXES AND POWER SUPPLIES

BA11-EC	Extension Mounting Box with Table Top Cover. Includes a fan and BC11A-8F UNIBUS Cable	None	450	_	_		_	60	Note 2 Yes
BA11-ES	Extension Mounting Box with Tilt and Lock Chassis Slides. Includes fans and BC11A-8F UNIBUS Cable	None	400	_			_	60	Note 2 Yes
H720-A	Power Supply 115V 50/60 Hz	None	500	В	-	-	-		Note 2 Yes
Н720-В	Power Supply 230V 50/60 Hz	None	500	В	-	_		_	Note 2 Yes
H960-CA	Free Standing Base Cabinet. Includes fans, power distribution panel, extension feet, front bezel panels	None	650	_	-	_	_	_	Note 2 Yes
H952-HA	Free Standing Table with adjustable height legs for use with H960-CA cabinet	None	120	_	-		_	-	Note 2 Yes
H961-A	Free Standing Cabinet without end panels	None	430	_	-		_		Note 2 Yes

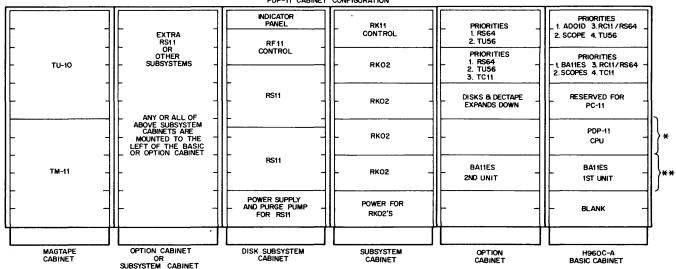
MAINTENANCE AND SPARE PARTS

WAIR I LRANGE AND STAIL FARTS										
	KM11A	$\label{eq:maintenance} \textbf{M} \textbf{aintenance Module-light and switch card for examination of machine states}$	None	250	-	-	_	-	_	Note 2 Yes
	SP11-KA	KA11 Spare Parts	PDP-11/20	2,950	-	-	_	_	_	Note 2 Yes
	SP11-MM	MM11-E Spare Parts	PDP-11/20	700	_		-	-	_	Note 2 Yes
	SP11-PS	Spare Parts for H720	H720	195	_		-	_	_	Note 2 Yes

MOUNTING CODES

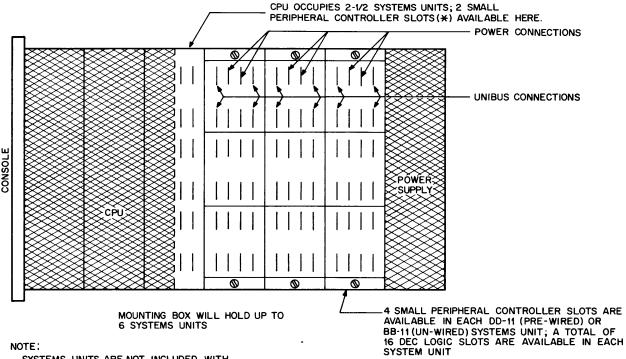
- A Mounts in Basic Mounting Box
- B-Mounts in Basic or Extension Mounting Box
- C-One MR11-A and one MW11-A mount in a single System Unit which is included with the purchase of the MR11-A option. Each MR11-A requires one System Unit of mounting space and provides space for one MW11-A.
- D-Mounts in the KA11 Processor
- E Mounts on rear door of H960-CA or similar cabinet
- F-Line Printer free-standing HWD (inches)=46 x 24 x 22
- G-Mounts in one of the two small peripheral controller slots in the KA-11 or one of the four small peripheral controller slots in a DD11-A.
- H Cabinet Mounted

PDP-11 CABINET CONFIGURATION



* = PROCESSOR, MEMORY, EAE, DD11, KW11-L

** = DD11, DR11, BB11, MEMORY, SMALL PERIPHERAL CONTROLS, COMMUNICATIONS



SYSTEMS UNITS ARE NOT INCLUDED WITH MOUNTING BOX. CPU PLUGS INTO 3 SYSTEMS UNITS (SUPPLIED WITH CPU. ONE SYSTEM UNIT IS INCLUDED WITH EACH MEMORY ORDERED (EXCEPT M792)

* THESE SMALL PERIPHERAL CONTROLLERS MAY BE:

- 1. TTY CONTROLLER (KL-11)
- 2. HIGH-SPEED READER/PUNCH CONTROL
- 3. LINE-PRINTER CONTROL
- 4. CARD READER CONTROL
- 5. 32-WORD DIODE ROM BOOTSTRAP
- 6. DR-11A GENERAL PURPOSE INTERFACE

Note 1

When ordering PDP-11 systems it is important that sufficient mounting hardware is ordered to accommodate each system. Particular attention should be given to the number of DD11's required and whether a BA11-EC or BA11-ES Extension Mounting Box is needed.

DD11's are System Units prewired to mount small peripheral controllers such as a Teletype control or a High Speed Paper Tape Reader/Punch control. Each DD11 can hold four controllers and mounts in 1/6 of a Basic or Extension Mounting Box. This is in addition to the two small peripheral controller slots available in the KA-11.

To determine the number of DD11's to order, total the number of spaces required for each item ordered times the quantity ordered. Subtract two from this number and divide by four. Round up to the next whole number if there is a remainder. Order this number of DD11's.

$$\frac{\text{\# of "Spaces" used } -2}{4} = \text{\# of DD11's needed}$$
 Note: Round up to a whole number

Six System Units will mount in either the Basic or the Extension Mounting Box. To determine whether to order an Extension Mounting Box, total the products of the number of System Units required for each item ordered times the quantity ordered. Include DD11's and BB11's, Add one and divide the new total by six and round up to the next whole number if there is a remainder. If the result is one, an Extension Mounting Box is not needed. If the result is two, order an Extension Mounting Box (BA11-ES or BA11-EC) and Power Supply (H720A or H720B).

Note: Round up to a whole number. If the result is greater than one an Extension Mounting Box is needed.

Note 2

Discountable under a PDP-11 Discount Agreement.

Note 3

Discountable under a Module Discount Agreement.

All prices quoted are FOB Maynard, Massachusetts and apply in the continental United States only. Federal, state, and local taxes are not included. All prices and specifications are subject to change without notice.

Disk Operating System

The PDP-11 Disk Monitor is a disk-resident software system which enables a PDP-11 user to efficiently develop and execute his programs. During program development, the monitor serves the user by providing a simple, easy-to-use interface with program development software such as the relocating assembler, FORTRAN compiler, editor, etc. During program execution, the monitor eases the burden on the user program by providing common I/O device handling routines, loaders, operator interface, and basic resources accounting.

FORTRANIV

FORTRAN-IV is a full ANSI standard compiler which operates under the PDP-11 Disk Monitor System. In addition, PDP-11 FORTRAN includes language elements which permit compatibility with IBM 1130 FORTRAN programs.

CONFIGURATIONS AVAILABLE

PDP-11 Disk Operating Systems 1130 compatible; FORTRAN IV

Configuration I

- PDP-11/20; extra 4K core (8K total); with cabinet and Teletype
- RF11/RS11 256K-word DEC Disk and Control
- TC11/TU56 Dual DECtape Transport and Control
- KW11-L Real-Time Clock
- BM792-YB ROM Bootstrap Loader
 List Price: \$37,200
 SYSTEM PACKAGE PRICE*: \$35,950

Configuration II

- PDP-11/20; extra 4K core (8K total); with cabinet and Teletype
- RF11/RS11 256K-word DEC Disk and Control
- PC11 High-Speed Paper Tape Reader and Punch
- BM792-YB ROM Bootstrap Loader List Price: \$33,150

Configuration III

- PDP-11/20; extra 4K core (8K total); with cabinet and Teletype
- RC11/RS64 64K-word Disk and Control
- TC11/TU56 Dual DECtape Transport and Control
- BM792-YB ROM Bootstrap Loader List Price: \$29,900

KW11-L Clock is optional in DOS configuration.

BTSS...PDP-11 BASIC Time-Sharing System

The PDP-11 BASIC Time-Sharing System is a multi-purpose, multi-user system, allowing many users to develop their own programs or interact with standard applications programs for information, retrieval, data processing, and text editing. BTSS BASIC is a greatly enriched version of the popular time-sharing language, expanded to provide the greatest possible utility in a small computer time sharing environment. Key features of BTSS are the power and flexibility of BASIC (includes matricies, strings and files) and user access to I/O devices for high-speed input and output.

BTSS Configuration for 16 users with local TTY terminals:

- PDP-11/20 with 16K core, cabinet and console Teletype
- RF11/RS11 256K DEC Disk and Control
- TC11/TU56 Dual DECtape Transport and Control
- KW11-L Real-Time Clock
- BM792-YB DECtape ROM Bootstrap Loader
- BA11-ES Extension Mounting Box
- H720 Power Supply
- . Four DD11-A Mounting Units for KL11 Interfacing
- DB11-B Bus Extension

Note: One KL11 and one Teletype should be added for each local user. Alternate configurations are available which utilize combinations of 16-line multiplexer, remote-terminal interfaces, alternative terminals, the RS64 swapping disk and the RK02 moving head disk. Card reader and line printer may be added.

Price: \$46,550; software is included with supporting hardware.

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^{*}Package price applies only if configuration is ordered as stated