Model 2626A

The HP 2626A is a high performance terminal using silicon on sapphire components to provide unique display capabilities and data communications flexibility.

The HP 2626 allows division of the display memory into four independent workspaces and the display screen into separate windows to examine and manipulate the contents of the workspaces. Independent terminal configurations may be attached to each workspace allowing four virtual terminals.

In addition dual data communications ports may be linked to workspaces to display data from two different sessions or computers.

An optional forms copy integral printer can provide copies of forms or, using a compressed mode, print 132 column reports on the 8-1/2 inch wide paper.

The extraordinary power and flexibility of this terminal is made easy to use via screen labeled function keys which allow the system designer to create forms interactively or configure the terminal through different menus.

For an application, user operation may be further simplified and in fact the power and flexibility of the terminal hidden from the user by specifying operation through the screen labeled user keys and providing audio cues to create a superb man-machine interface. The capabilities may be applied to provide high performance data entry systems using low speed lines, for increasing programming productivity, implementing advanced office applications, and many more.

FEATURES

Multiple Workspaces*
- Up to 4 available
- Line lengths from 80 to 160 columns
- 119 eighty character lines to
- 59 one hundred sixty character lines

Multiple Windows*
- Up to 4 available
- Two vertical
- Four horizontal

Dual Data Communications Ports*
- Simultaneous communication to two computers or serial printer
- Point-to-point, multipoint
- Asynchronous, synchronous

Horizontal Scrolling*
- Accommodates lines up to 160 characters long

Forms Copy Integral Printer (optional)
- Compressed mode for 132 column lines
- Expanded print for larger characters
- Report modes with 60 or 64 line pages

User Definable Softkeys
- 16 character screen labels for 8 keys
- Return and Enter keys programmable

Interactive Forms Design (via Function Keys)
- Single, double, and bold lines
- Display enhancements: inverse video, underline and blink
- Character edits: Alpha, alphanumeric, numeric

Programmable Audio Feedback
- 15 tones – 16 durations – two volumes

HP 2645A escape sequence compatible

Character sets and keyboards for six optional languages
- French, German, Danish/Norwegian, Finnish/Swedish, Spanish and United Kingdom (optional)

Extended Character Sets
- Line drawing set of 96 characters
- Math character set (optional)
- Large character set (optional)

Reliability and Serviceability
- Self test capabilities for terminal, data communications, and integral printer.

*Capabilities made possible through custom LSI.

Memory

WORKSPACES DIVIDE MEMORY

Display memory may be divided into up to four individual workspaces. Each workspace may be independently viewed, controlled and configured including attachment to a data comm port. (For example memory lock, auto line feed, etc., may be set in a particular workspace.) Data may be transferred from one workspace to another, to the integral printer, or to an external device. This capability amounts to four virtual terminals which may be changed from application to application or system to system.

The number of lines in a workspace may vary; however, the total number of lines in all workspaces must be less than or equal to the total number of lines of memory. The total amount of memory available is 9520 displayed characters independent of control codes for display enhancements, field definitions, and edits. The line length for all workspaces may be set from 80 to 160 characters so that 132 column reports as well as double width pages may be handled. Viewing is via horizontal scrolling.

Workspace Division and Line Length
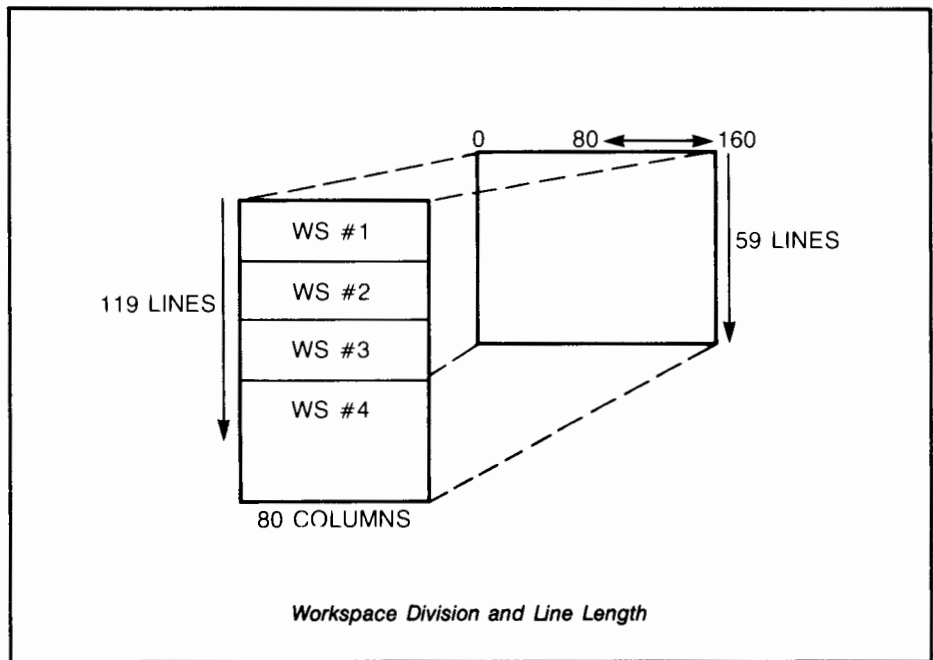
Display

WINDOWS DIVIDE SCREEN

The display screen can be divided into up to four windows. The windows are attached to workspaces to view and manipulate the contents. To view the entire contents of a workspace, data may be scrolled horizontally and vertically or the size of a window may be changed from the keyboard. The screen may be divided into up to four horizontal segments and two vertical segments. The total maximum number of different screen windows is four.

The screen displays 1920 characters in a 24 line by 80 column format with two additional lines used for the labeling of function/softkeys, or as a system error/status window.

Optional character sets provide math and large characters as well as capabilities for French, German, Danish/Norwegian, Finnish/Swedish, Spanish, and United Kingdom characters. These language character sets operate in seven bit ASCII or eight bit International Standards Organization (ISO) modes. The handling of mute characters is also selectable as is the keyboard layout in French (AZERTY or QWERTY).

The display itself offers high quality and resolution using a 7×9 dot matrix in a 9×15 character cell with full interstitial dots, a technique providing the best display quality yet in a terminal from Hewlett-Packard.

Four Windows with Window Control Functions

Data Communications

DUAL DATA COMM PORTS

Two communications ports allow simultaneous communications with two computers, two sessions on the same computer, or with a computer and an external RS232 serial printer. Data may be displayed or passed through the terminal to a local printer. Data may be communicated to the computer using block, line, line modify, or character modes. The line modify mode allows a user to take advantage of the editing capabilities of the terminal while using character mode applications on the computer.
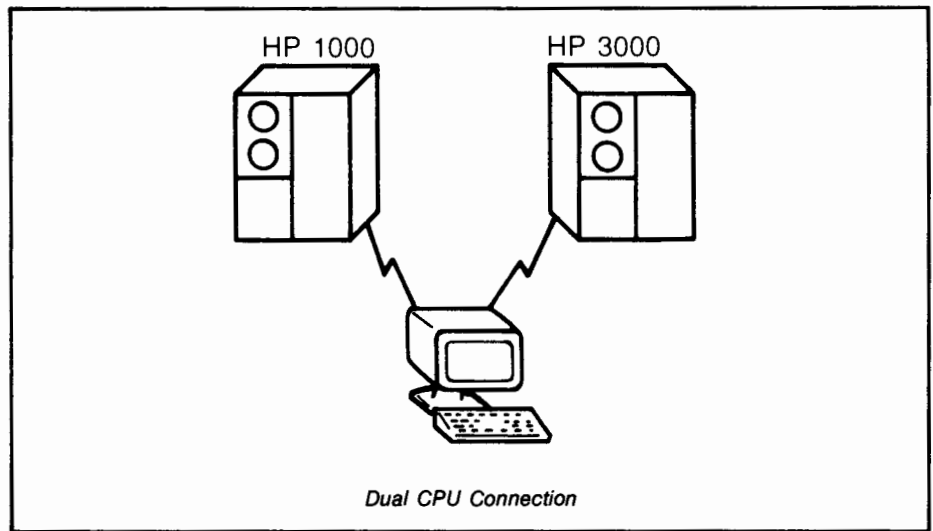
Data communications flexibility is extensive. The HP 2626A provides point-to-point and asynchronous or synchronous multipoint capabilities, full and half duplex operation, flexible handshaking, and expandable buffers. RS232C interfacing or 20mA current loop is available. Data communications set-up is made easy by a series of configuration menus which present only the options required for a particular capability. Default values provide for the most common choices.

Dual CPU Connection

FULL DUPLEX MODEM   #1

BaudRate	300	Parity	ODD	DataBits	7	BufSize	128	XmitClkSource	Int
Asterisk	CS			StopBits	2	EnqAck	YES	RecvClkSource	Int
TR(CD)	HI	Chk Parity	YES	SR(CH)	LO	StripNulDel	YES	XmitClkOut	x16
								ExtClkIn	x16
RecvPace	None							
XmitPace	None					RR(CF)Recv	NO	

FULL DUPLEX Hardwired   #1

BaudRate	9600	Parity	ODD	DataBits	7	BufSize	128	XmitClkSource	Int
Asterisk	OFF			StopBits	2	EnqAck	YES	RecvClkSource	Int
TR(CD)	HI	Chk Parity	YES	SR(CH)	LO	StripNulDel	YES	XmitClkOut	x16
								ExtClkIn	x16
RecvPace	None			SRRXmit	NO	RR(CF)Recv	NO	
XmitPace	None			SRRInvert	NO	CS(CB)Xmit	YES	

Data Comm Menu

FORMS COPY INTEGRAL PRINTER

The printer makes dot copies of information in workspaces, windows, or as displayed on the screen. It duplicates line drawing, math, and large characters as well as the characters associated with the language options. Inverse video fields are copied by outlining with a box. In addition a compressed print mode may be used to copy lines of up to 132 columns on the 8-1/2 inch wide paper. Longer line lengths are printed by wrapping the characters. An "expanded print" mode prints double sized characters. A report mode formats data into 60 line 11 inch pages and the metric mode formats data into 64 line A4 size pages.

RUN DATE 05/19/80   PURCHASED PART STD VS CUR COST COMPARISON   PAGE   2
                                         PART CATEGORY ANALYSIS

PART-NUMBER	DESCRIPTION	ACCT REPL	USE	STD-MATL	CUR-MATL	$-DIFF	STD-EXTD	CUR-EXTD	DIFF-EXTD	%-DIFF
0371-1259	CAP RT BKTPAR CB	3521 0000	11113	.0490	.0490	.0000	544.5370	544.5370	.0000	.00
0371-1260	CAP BKSLH PAR CB	3521 0000	11113	.0490	.0490	.0000	544.5370	544.5370	.0000	.00
0371-1261	KEYCAP :: COC BR	3521 0000	10381	.0490	.0490	.0000	508.6690	508.6690	.0000	.00
0371-1262	KEYCAP '" COC BR	3521 0000	10381	.0490	.0490	.0000	508.6690	508.6690	.0000	.00
0371-1263	KEYCAP ,< COC BR	3521 0000	10381	.0490	.0490	.0000	508.6690	508.6690	.0000	.00
0371-1264	KEYCAP .> COC BR	3521 0000	10381	.0490	.0490	.0000	508.6690	508.6690	.0000	.00
0371-1265	KEYCAP /? COC BR	3521 0000	10381	.0490	.0490	.0000	508.6690	508.6690	.0000	.00
0371-1266	CAP ESC DEL CBRN	3521 0000	9755	.0490	.0490	.0000	477.9950	477.9950	.0000	.00
0371-1267	CAP BACKSPC CBRN	3521 0000	13790	.0490	.0490	.0000	675.7100	675.7100	.0000	.00
0371-1268	CAP CAPS CO BRN	3521 0000	13790	.0490	.0490	.0000	675.7100	675.7100	.0000	.00
0371-1269	CAP CTRL COC BRN	3521 0000	13790	.0490	.0490	.0000	675.7100	675.7100	.0000	.00
0371-1270	CAP ENTER COC BR	3521 0000	13790	.0490	.0490	.0000	675.7100	675.7100	.0000	.00
0371-1271	CAP NLM COC BRN	3521 0000	9755	.0490	.0490	.0000	477.9950	477.9950	.0000	.00
0371-1272	CAP BREAK CO BRN	3521 0000	9755	.0490	.0490	.0000	477.9950	477.9950	.0000	.00
0371-1273	CAP TAB/BKTB CBR	3521 0000	13790	.1900	.1900	.0000	2620.1000	2620.1000	.0000	.00
0371-1274	CAP SHIFT CO BRN	3521 0000	27580	.1900	.1900	.0000	5240.2000	5240.2000	.0000	.00
0371-1275	CAP RETURN CDBRN	3521 0000	13790	.2600	.2600	.0000	3585.4000	3585.4000	.0000	.00
0371-1276	CAP(BLANK) ADBRN	3521 0000	9755	.0490	.0490	.0000	477.9950	477.9950	.0000	.00
0371-1277	SPCBAR ASSY CBRN	3521 0000	13790	1.2500	1.2500	.0000	17237.5000	17237.5000	.0000	.00
0371-1278	CAP HOHELP ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1279	CAP HOMEIN ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1280	CAP ROLLUP ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1281	CAP ROLLDN ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1282	CAP CUR LT ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1283	CAP CUR RT ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1284	CAP CUR UP ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1285	CAP CUR DN ADBRN	3521 0000	3202	.1900	.1900	.0000	608.3800	608.3800	.0000	.00
0371-1352	CAP CUR LF	3521 0000		.1900	.1900			.0000	.0000	.00

Using Integral Printer

device modes	"from" device	"to" devices	ADVANCE PAGE	ADVANCE LINE	COPY ALL	COPY PAGE	COPY LINE
device control	SCREEN COPY	LOG BOTTOM	LOG TOP	EXPAND PRINT	COMPRESS PRINT	REPORT PRINT	METRIC PRINT

Printer Control Function Keys – Screen Labels

INTERACTIVE FORMS DESIGN

Function keys provide access to a sketch forms capability for drawing horizontal and vertical lines with single, double line, and bold definitions. Data Frame and Margin Frame keys are also provided. Fields may be defined as protected, unprotected, or transmit only and are accessed through a Define Field function. The edit function assigns character edits for alphanumeric, alpha, and numeric data. The display enhancements include inverse video, underline, and blinking in any of eight possible combinations. A Security Video enhancement allows passwords to be entered but not displayed. These capabilities are all accessed via function keys. No special codes to learn and memorize. A capability guaranteed to shorten the development time for forms.

Vendor Name	Address	City	State	Zip
PACIFIC TOOL INC	1273 CRESCENT WAY	SAN JOSE	CALIFORNIA	95131

Voucher Date			Units	Purchase And Assembly Details	Post Ref.	Cost
07	16	1976	98	FINISHED STEEL CASTINGS	874738	65.88
03	19	1976	749	TAPE TRANSPORT BACKPLATES	875483	9753.88
02	28	1976	13	MILLED FLANGE ASSEMBLY	748563	877.44
		19				.
		19				.

HEWLETT-PACKARD	INITIATED BY: H.C. DOUGLAS	DATE: 04 14 1976

Typical Form

Forms Drawing Function Keys – Screen Labels

Define Fields and Enhance Video Function Keys – Screen Labels

SCREEN LABELED USER KEYS

Eight soft keys can be labeled on the screen using two lines of eight characters each. This capability offers a new level of operator/application program interfacing by allowing the program to re-define and re-label the keys as required to increase ease of use. In addition the Return and Enter keys are programmable. The Return key could tab for example, or the Enter key could change workspaces revealing a hidden form. Also the Tab key can be set to transmit spaces to the computer. Both forward tab and back tab keys are located on the separate numeric pad to speed and ease the task of data entry.
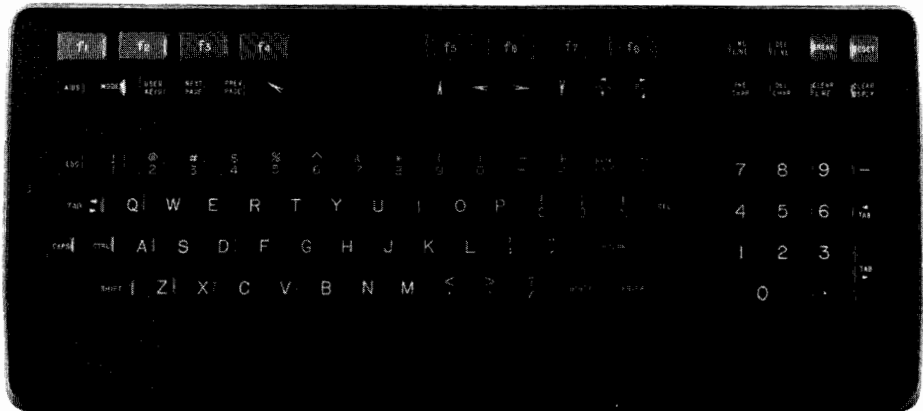
PROGRAMMABLE AUDIO FEEDBACK

Audio cues to alert operators to conditions or status within an application program may be provided using the programmable tone which has fifteen pitches with sixteen durations and two volume levels. Distinctive tone phrases may be used to signify types of errors, tell a person of completed processes, or status.

HP 2645A ESCAPE SEQUENCES

In the continuing effort to protect and leverage software investments made by users, the HP 2626A escape sequences (control codes) are compatible with the HP 2645A. (If performance compatibility in a particular application is a concern, testing with the application program is recommended.)

RELIABILITY/SERVICEABILITY

The HP 2626A terminal provides several levels of self test capability including a "Power On Test" which provides a complete test of the terminal including memory, a terminal test which does not disturb data, a Data Comm test, and a printer test. These tests allow the user to verify proper operation and aid service personnel in diagnosis. In addition the terminal is constructed for easy access to components, provides a list ROMs function for easy identification of components, and has sockets for all major components.

Not only has the terminal design been subjected to environmental tests involving temperature, humidity, vibration, and electro-static discharge susceptibility, but the terminal and its components have been tested, inspected, and burned-in so that the terminal meets Hewlett-Packard's standards of reliability. In addition Hewlett-Packard works with safety agencies around the world to assure that our products are safe as well as reliable.

Product Support

HARDWARE SUPPLIED

2626A Display Station
Option 050 Integral Printer (includes two rolls of paper).

DOCUMENTATION SUPPLIED

2626 User's Manual (02626-90001)
2626 Reference Manual (02626-90002)

DOCUMENTATION AVAILABLE

2626 Service Manual (02626-90003)

HP SYSTEMS SUPPORT

Refer to appropriate HP system data sheet for use and support of the HP 2626 in systems. If this product is used in a customer-assembled system, the overall operation responsibility of the system rests with the customer.

WARRANTY

The HP 2626 is warranted against defects in materials and workmanship. Contact the local HP Sales Office for terms and conditions. NOTE: *For warranty coverage on the 2626 Option 050, HP qualified printer paper must be used (92160A or 92160B).*

POWER ON TEST			MONITOR MODE		TERMINAL TEST	IDENTIFY ROMS	DATACOMM TEST	INT PRT TEST

Service Function Keys – Screen Labels

```
Character ROMs
1AC1-6018 ROMAN & EXTENDED LINE DRAWING (UPPER BYTE) REV B
1AC1-6017 ROMAN & EXTENDED LINE DRAWING (LOWER BYTE) REV B
1AC1-6020 EXTENDED MATH, EXTENDED LARGE, & ROMAN EXTENSION (UPPER BYTE)
1AC1-6019 EXTENDED MATH, EXTENDED LARGE, & ROMAN EXTENSION (LOWER BYTE)


Firmware ROMs
1818-1255 2004
1818-1256 2004
1818-1257 2004
1818-1258 2004
1818-1259 2004
1818-1260 2004
1818-1261 2004
1818-1262 2004
1818-1263 2004
1818-1264 2004
```

Identify ROMS Key Output

```
                    Data Comm Test

        Port  1

   Test type  Loopback(Local/Remote Modem)

     Result  Pass   Err#     0
```

Data Comm Test Menu

Integral Printer Test Output

Specifications

GENERAL

Screen Size:	150 mm (6 inches) × 215 mm (8.5 inches) diagonal measurement 262 mm (10.4 inches)
Screen Capacity:	24 lines × 80 columns (1920 characters). 25th and 26th for labeling of function/softkeys or as message/status lines
Character Generation:	7 × 11 enhanced dot matrix with interstitial dots; 9 × 15 dot character cell; non-interlaced raster scan.
Character Size:	2.4 mm (.094 inches) × 3.5 mm (.138 inches).
Character Set:	Upper/lower case, displayable control codes, extended line drawing. Optional math symbols, large characters, Finnish/Swedish, Danish/Norwegian, French, German, Spanish and U.K. characters.
Cursor:	Blinking-underline, blinking-square for insert mode.
Display Enhancements:	Inverse video, underline, blink, security
Refresh Rate:	60 Hz (50 Hz optional)
Tube Phosphor:	P4
Implosion Protection:	Tension Band
Memory:	80 characters by 119 lines including a default data comm buffer. (Buffer expandable to 2K bytes — reduces memory to 80 characters by 107 lines.) 128 bytes non-volatile configuration memory (battery powered).
Keyboards:	Full ASCII code keyboard; eight screen labelled keys; cursor controls; 14 key numeric pad; auto-repeat; N-key roll-over; detached with 1.2M (4 foot) cable. Optional Finnish/Swedish, Danish/Norwegian, French, German, Spanish, and U.K. keycaps.

DATA COMMUNICATIONS

Data Rate:	110, 134.5, 150, 200, 300, 600, 1200, 1800, 2000, 2400, 4800, 9600 baud and external. Operation with control codes, escape sequences, integral printer, or baud rates above 4800 may require CPU supplied delays or handshakes. Typical printer throughput is 60 cps. Full 24 × 80 line character screen copies in 18 seconds.
Port 1 Asynchronous/Synchronous Interface (50 pin):	EIA standard RS232C; fully compatible with Bell 103A, 202C/D/S/T modems. Choice of main channel and/or reverse channel in half duplex. CCITT V.24 hardware handshaking available. Accessory PODS provide current loop, (13266A); asynchronous or synchronous multipoint, (13267A first terminal, and 13268A daisy-chain terminal. 300 Baud Modem 13268A U.S. only)
Transmission Modes:	Full or half-duplex, asynchronous, synchronous
Port 2 Asynchronous/Synchronous Interface (25 pin):	EIA standard RS232C; fully compatible with Bell 103A modems, 202C/D/S/T modems. Choice of main channel and/or reverse channel in half duplex. CCITT V.24, hardware handshaking for control of external printer.
Transmission Modes:	Full or half duplex, asynchronous, synchronous (Does not support HP Multipoint polled protocol)
Operating Modes (Both Ports):	On-line; off-line; character, line modify, line and block
Parity:	Selectable; even, odd, none, 0, 1

POWER REQUIREMENTS

Input Voltage:	120V (+5%, −10%) at 60 Hz (±5%)	100V (+5%, −10%) at 60 Hz (±5%)
	100V (+5%, −10%) at 50 Hz (±5%)	220V (+5%, −10%) at 50 Hz (±5%)
	240V (+5%, −10%) at 50 Hz (±5%)	
with Option -050	115V (+10%, −25%) at 50/60 Hz (±5%)	230V (+10%, −15%) at 50 Hz (±5%)
Power Consumption:	75W	
with Option -050	120W	

ENVIRONMENTAL CONDITIONS

Temperature, Free Space Ambient:	Non-Operating: −40 to +60°C (−40 to +140°F) Operating: 0 to +55°C (+32 to +131°F)
with Option -050:	Operating: + 5 to +40°C (+41 to +104°F)
Humidity:	5 to 95% (non-condensing)
with Option -050:	5 to 80% (non-condensing)
Altitude:	Non-Operating: Sea level to 15240 meters (50,000 feet) Operating: Sea level to 4572 meters (15,000 feet)
Vibration and Shock:*	Vibration: 0.38 mm (0.015") pp, 5 to 55 Hz, 3 axis Shock: 20 g, rms, 1/2 sine *Type tested to for normal shipping and handling in original shipping container.

PRODUCT SAFETY

|	
Product Meets:	The requirements of the following safety agencies for EDP equipment and/or office equipment in the following countries: Canada — CSA, Finland — FEI, Germany — VDE, Switzerland — SEV, U.K. — BSI, United States — U.L.

PHYSICAL SPECIFICATIONS

Display Monitor Weight:	16.8 kg (37 pounds)
with Option -050:	19.0 kg (42 pounds)
Keyboard Weight:	2.0 kg (4.4 pounds)
Display Monitor Dimensions:	380 mmW × 475 mmD × 440 mmH (15.0"W × 18.7"D × 17.3"H); (665 mmD (26.2"D) including keyboard)
Keyboard Dimensions:	430 mmW × 190 mmD × 75 mmH (17.0"W × 7.5"D × 3.0"H)

Ordering Information

Product Number	Option	Description	U.S. Price
2626A	—	Display Station. ASCII keyboard with numeric pad, 80 character by 119 lines display memory, serial I/O port, 60 Hz, 110 volt operation	
	-001	Finnish/Swedish character set and keyboard†	
	-002	Danish/Norwegian character set and keyboard†	
	-003	French character set and keyboard†	
	-004	German character set and keyboard†	
	-005	United Kingdom character set and keyboard†	
	-006	Spanish Language character set and keyboard†	
	-013	240V, 50 Hz operation	
	-014	100V, 60 Hz operation	
	-015	220V, 50 Hz operation	
	-016	100V, 50 Hz operation	
	-050	Integral forms copy thermal printer, 120 characters-per-second using 8-1/2 inch wide paper	
	-201	Math and Large Character sets. (Standard with any language option	
†Deletes U.S. keyboard and includes math and large character sets.			

	Accessories	Description	U.S. Price
Cables for Port 1 (50 Pin)	13222C	RS232 cable — female, 2 meters	
	13222M	European modem cable — male, 5 meters	
	13222N	U.S. modem cable — male, 5 meters	
	13222W	HP 300 System cable	
	13222Y	RS232 EMP protect cable — male, 5 meters	
	13232R	Multipoint extension cable — female/male, 100 feet	
Cables for Port 2 RS232 Connector (25 Pin)	13242G	RS232 printer cable — male/male, 5 meters	
	13242H	RS232 printer cable — male/female, 5 meters	
	13242M	European modem cable — male, 5 meters	
	13242N	U.S. modem cable — male, 5 meters	
	13242Y	RS232 EMP protect cable — male/male, 5 meters	
	13265A	300 baud modem pod (U.S. only)	
	13266A	Current loop pod	
	13267A	Asynchronous multipoint interface pod for 1st terminal	
	-001	Synchronous capability — 10 meter cable included	
	13268A	Asynchronous multipoint daisy-chain interface pod	
	-001	Synchronous capability — 10 meter cable included	
	92160A	Package of blue thermal paper, 8-1/2" × 100' (24 rolls)	
	92160B	Package of black thermal paper, 8-1/2" × 100' (24 rolls)	
	1420-0259	4.2 mercuric battery	
	02620-60056	Port 1 Data Comm Loopback ⬤nector	
	02620-60062	Port 2 Data Comm Loopback ⬤nector	

Contact Hewlett-Packard
We'll introduce you to our whole family
of data terminals.
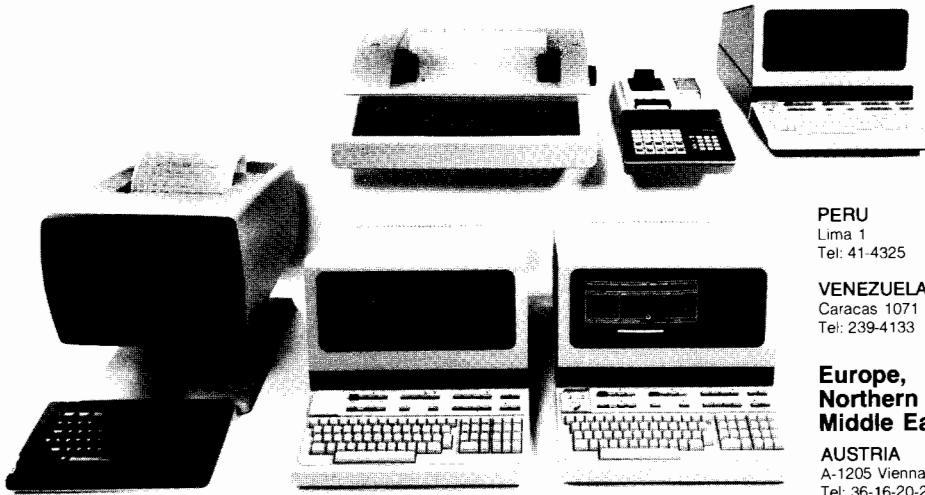
United States

ALABAMA
Huntsville
Tel: (205) 881-4591

ARIZONA
Phoenix
Tel: (602) 244-1361

CALIFORNIA
Canoga Park
Tel: (213) 702-8300
Fullerton
Tel: (714) 870-1000
Los Angeles
Tel: (213) 970-7500
North Hollywood
Tel: (213) 877-1282
Palo Alto
Tel: (415) 857-8000
Sacramento
Tel: (916) 929-7222
San Diego
Tel: (714) 279-3200
Santa Clara
Tel: (408) 988-7000

COLORADO
Englewood
Tel: (303) 771-3455

CONNECTICUT
Wallingford
Tel: (203) 265-7801

FLORIDA
Ft. Lauderdale
Tel: (305) 973-2600
Orlando
Tel: (305) 859-2900

GEORGIA
Atlanta
Tel: (404) 955-1500

HAWAII
Honolulu
Tel: (808) 955-4455

ILLINOIS
Rolling Meadows
Tel: (312) 255-9800

INDIANA
Indianapolis
Tel: (317) 842-1000

IOWA
Iowa City
Tel: (319) 351-1020

KENTUCKY
Louisville
Tel: (502) 426-0100

LOUISIANA
Kenner
Tel: (504) 443-6201

MARYLAND
Hanover
Tel: (301) 796-7700
Rockville
Tel: (301) 948-6370

MASSACHUSETTS
Lexington
Tel: (617) 861-8960

MICHIGAN
Farmington Hills
Tel: (313) 476-6400

MINNESOTA
St. Paul
Tel: (612) 644-1100

MISSOURI
Kansas City
Tel: (816) 763-8000
St. Louis
Tel: (314) 878-0200

NEW JERSEY
Paramus
Tel: (201) 265-5000
Piscataway
Tel: (201) 981-1199

NEW MEXICO
Albuquerque
Tel: (505) 292-1330
Las Cruces
Tel: (505) 526-2484

NEW YORK
Albany
Tel: (518) 458-1550
Fairport
Tel: (716) 223-9950
New York City
Tel: (212) 971-0800
Syracuse
Tel: (315) 455-2486
Woodbury
Tel: (516) 921-0300

NORTH CAROLINA
Greensboro
Tel: (919) 852-1800

OHIO
Cleveland
Tel: (216) 243-7300
Dayton
Tel: (513) 859-8202

OKLAHOMA
Oklahoma City
Tel: (405) 721-0200
Tulsa
Tel: (918) 665-3300

OREGON
Wilsonville
Tel: (503) 682-8000

PENNSYLVANIA
King of Prussia
Tel: (215) 265-7000
Pittsburgh
Tel: (412) 782-0400

SOUTH CAROLINA
Columbia
Tel: (803) 782-6493

TEXAS
Houston
Tel: (713) 776-6400
Richardson
Tel: (214) 231-6101
San Antonio
Tel: (801)974-1700

UTAH
Salt Lake City
Tel: (801) 974-1700

VIRGINIA
Richmond
Tel: (804) 285-3431

WASHINGTON
Bellevue
Tel: (206) 454-3971

WISCONSIN
Brookfield
Tel: (414) 784-8800

Canada

ALBERTA
Calgary
Tel: (403) 253-2713

BRITISH COLUMBIA
Richmond
Tel: (604) 270-2277

NOVA SCOTIA
Dartmouth
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