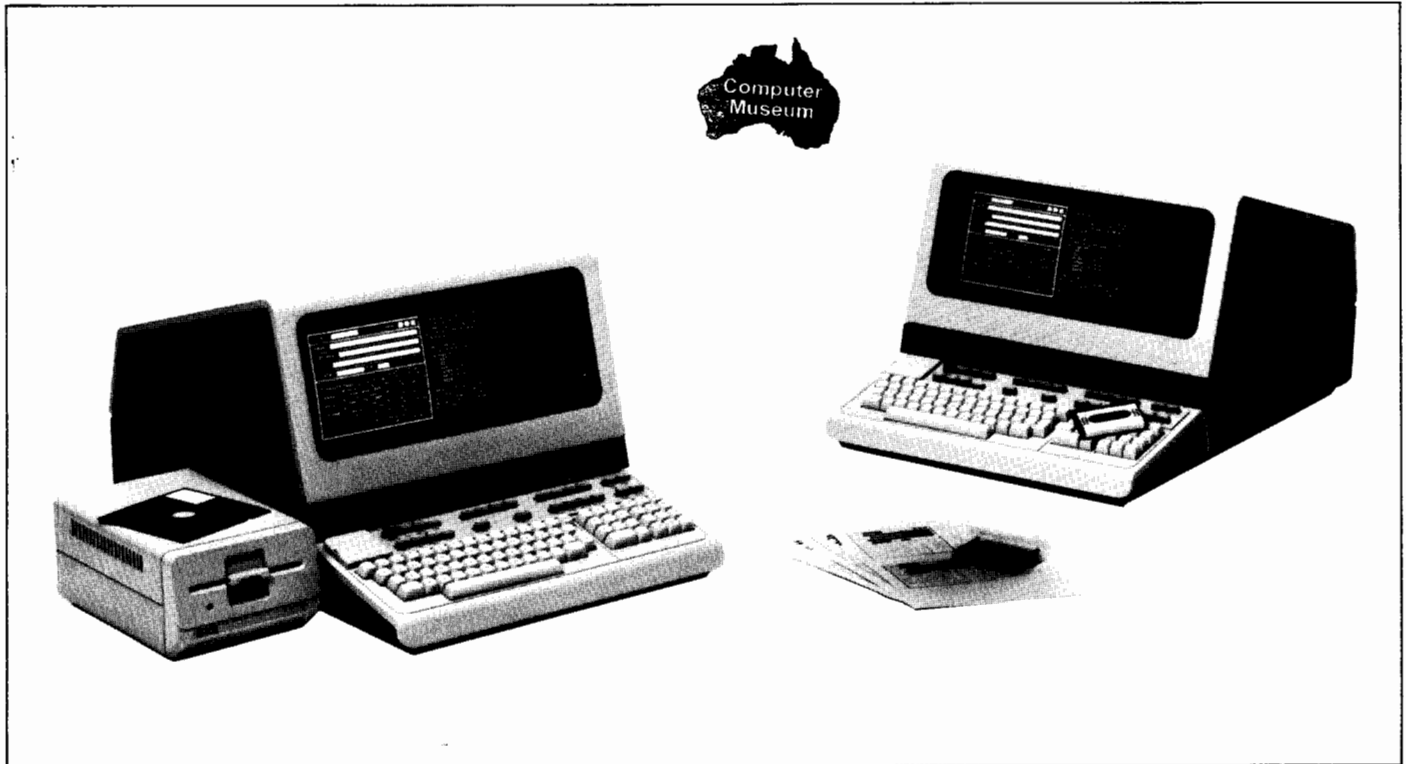




## Enhanced Display Station

Model 2642A



The HP 2642A is a sophisticated display station which provides a substantial off-line capability. In addition to being compatible with the powerful HP 2645A terminal, the 2642A adds flexible mini disc support, enhanced text editing and simplified forms design. These features provide local capabilities which enhance user performance in a wide range of interactive terminal applications such as text editing, data entry and program development.

### FEATURES

#### High Resolution Display

- Full 128 Character Roman Character Set
- 88 Eighty Character Lines of Memory
- Display Enhancements (blinking, half bright, inverse video, underlining)
- Line Drawing Set
- Math Character Set
- Large Character Set

#### Flexible Mini Disc

- 270K Bytes of Storage
- Interactive File System
- Optional Second Drive

#### Text Preparation

- Word Wraparound
- Search/Replace
- Paragraph Copy
- Delete Word, Sentence or Paragraph
- Justification
- Adjustable Margins

#### Forms Mode

- Character/Block Mode
- Field Checking
- Auto Data Logging

#### Simplified Forms Design

- Controlled by Screen Labeled Keys

#### Simple User Interface

- English-like Terminal Commands
- Eight User-Defined Soft-Keys
- User-Defined Screen Labels

#### Choice of Communication Capabilities

- Standard RS232C
- 20 MA Current Loop (optional)
- Asynchronous Multipoint (optional)
- Synchronous Multipoint (optional)
- Auto Dial with HP 13265A Modem (U.S. only)

#### Hardcopy Interface (optional)

- Standard RS232C
- HP 8-Bit Duplex
- HP Shared Peripheral

#### High Reliability and Serviceability

- Built-in Self-test
- Modular Design for Ease of Service

## High Resolution Display

The 2642A displays 1920 characters in a 24 line by 80 character column format on a 5 inch by 10 inch display. A 9x15 dot character cell allows the 128 Roman character set to be displayed clearly and accurately. The standard character set includes upper and lower case characters plus control characters.

The 2642A includes enough memory for eighty-eight 80 character lines. Because of an efficient dynamically allocated memory organization, spaces to the right of the last character typed on the display are not stored in memory. This means up to 200 lines may be stored in memory in a typical program development application.

Blinking, half bright, inverse video, and underline are display enhancements available to increase clarity, ease long sessions at the terminal and provide video feedback. Display enhancements can be accessed under program control or through the terminal keyboard. The 2642A also comes standard with the line drawing, math character and large character sets.

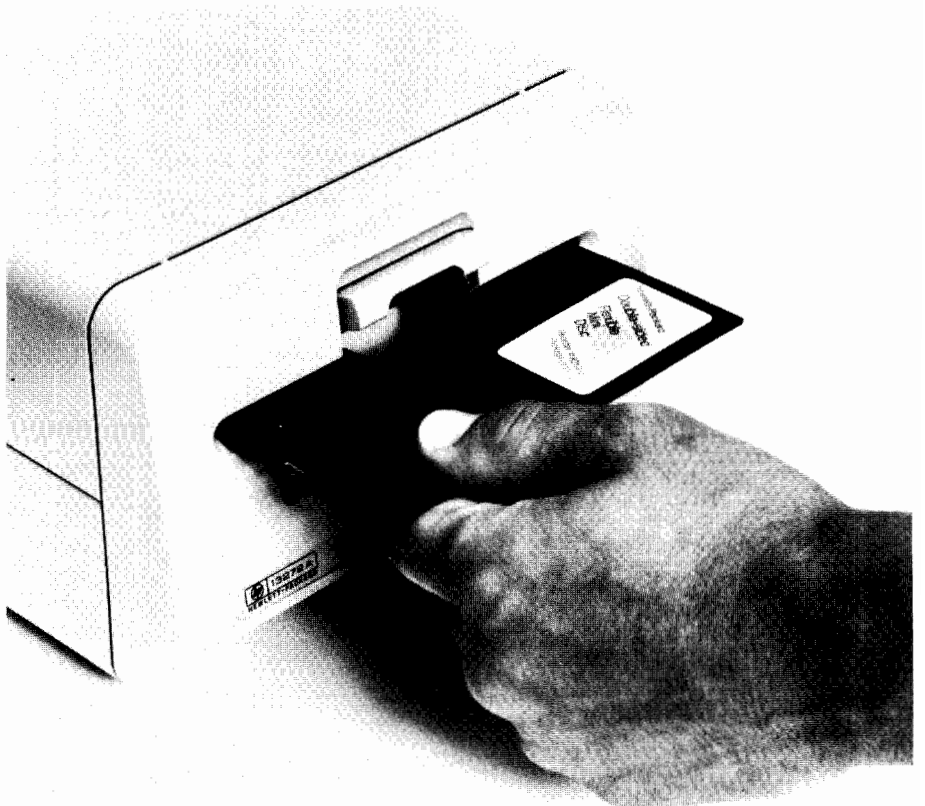


## Flexible Mini Disc Drive

The standard 2642A features one double sided double density Flexible Mini Disc Drive. Each Flexible Mini Disc can store up to 270K bytes of information. An optional second disc drive provides for a total off-line storage capacity of 540K bytes and a convenient means to back up critical data or text.

With flexible mini disc support many operations normally requiring connection to a computer can be performed off line with the 2642A. For example, text can be down loaded from a computer to mini disc, edited using Text Preparation Mode or high-lighted using Forms Design Mode and then batched back to the computer. In a data entry environment data can be stored on disc and later batched to a computer. In both applications the computer is free to perform other tasks while the terminal is handling editing or data entry. This can conserve both computer and communication resources, reduce user time and also provide backup storage to system storage files.

The 2642A offers a convenient and friendly method for disc access and control. The 2642A's file system is designed such that a minimum of user interaction is required to specify file characteristics.



## Text Preparation

Hewlett-Packard display terminals have always offered text editing features. Standard features have included character or line insert and delete, user defined margins, and character wraparound. The 2642A provides a number of additional editing capabilities that assist the user during the local and block mode editing of text. Combined with local flexible mini disc storage and printer support the 2642A makes text preparation and editing easy.

Text Preparation Mode allows text to be simply edited at the terminal. Correspondence, memos, and manual drafts can be quickly and easily prepared. Text Preparation can be used on-line with a page/block mode editing package or off-line with flexible mini disc and printer support.

The following features are supported by the 2642A Text Preparation Module:

**Adjust** — Realigns text between user-defined boundaries.

**Copy Paragraph** — Copies a selected paragraph to a specified location in display memory.

**Delete** — Deletes a specified word, sentence or paragraph.

**Indent** — Indents the first line of a paragraph during Adjust operation.

**Justify** — Justifies text to the left and right Adjust boundaries.

**Search** — Searches for the next occurrence of a specified character string.

**Replace** — Replaces a specified Search string with a specified Replace string.

**Word Wraparound** — Automatically wraps a word to the next line when a split word would otherwise result at the right margin.

SEARCH/REPLACE DATA

(Y/N): ☐ Ignore Case? ☐ Trailing Blanks OK?

SEARCH FOR:

REPLACE WITH:

ADJUST PARAMETERS

☐ Left Boundary ☐ Right Boundary ☐ Indent ☐ Justify(Y/N) ☐

return 0 6

Text Preparation "Define" Window

## Forms Mode and Simplified Forms Design

Forms Mode allows only data entered into a form to be transmitted to a computer. The 2642A can transmit character-by-character as an interactive terminal or can transmit a block of data at a time. Local editing allows the terminal user to verify and modify data before transmission to the computer. Standard features include; cursor sensing and positioning; alpha, numeric and alphanumeric field checking; unprotected and transmit-only fields; tabulation; automatic data logging and positional display lock. Page select and scrolling can be used to view data stored off screen in display memory.

The Forms Design Mode assists the user in specifying unprotected and transmit-only fields, field enhancements and drawing lines on the display screen. Forms Design on the 2642A utilizes screen labeled function keys to simplify and speed the design of forms. Display forms can be easily designed to resemble forms already in use.

Forms Design can also be used to enhance text on the display screen. Text can be quickly and easily highlighted using blinking, inverse video, half bright and/or underline enhancements. Forms Mode is ideal for enhancing manual drafts, memos and other documents.

HEWLETT-PACKARD ORDER FORM

ORDER#  DATE

NAME:  COMPANY

ADDRESS  CITY  STATE  ZIP

PHONE  EXT.

MODEL #	DESCRIPTION	UNIT PRICE	#UNIT	TOT SALE

Data Entry Form

## Simplified User Interface

Data paths between terminal facilities and peripherals are controlled by English-like commands. The user is guided by a friendly command line that utilizes screen labeled function keys to control terminal activities. Once the user specifies an operation to be performed, the terminal displays logical alternatives to complete the intended operation. This easy to use interface controls data flow between such terminal facilities as the display, flexible mini discs or cartridge tape units, printers and data communications.

Nine of the keyboard keys can be defined by the user with up to an 80 character string or control sequences. These keys can be defined from the keyboard, flexible mini discs, cartridge tapes or the computer. This allows the keyboard to be tailored to match the users applications. By pressing one softkey several different operations can be performed, thus greatly simplifying the use of the keyboard. Eight of the nine softkeys can be labeled on the screen allowing the user to assign meaningful screen labels to these keys. The ninth definable key is the RETURN key.

```
*COPY ALL FROM DISKETTE TO EXTERNAL PRINTER, DISPLAY
L TAPE  R TAPE  DISPLAY  1  52  EX PRNTR  SH PRNTR  HP-1B#
```

### 2642A Copy Command Line

## Hard Copy Interface

The 2642A supports a variety of industry standard output devices through optional printer interface accessories. Print commands can be initiated either from the terminal keyboard or remotely from a computer. Information to be printed can be routed from any valid source device, i.e. flexible mini disc, cartridge tape, data comm or the display. The commands for printing are accessed through the screen labeled function keys.

The 2642A supports a variety of HP printing devices. For example:

The HP 7310A is a 200 to 500 line per minute thermal printer, which supports proportional or fixed spacing, interchangeable characters sets, bold, underline or reverse printing and flexible page formatting. An internal paper cutter allows pages to be long or short minimizing paper waste.

The HP 2631B is a 180 character per second impact dot matrix printer which supports variable line spacings, automatic perforation skip, automatic underlining, programmable left/right margins and programmable page and text lengths.

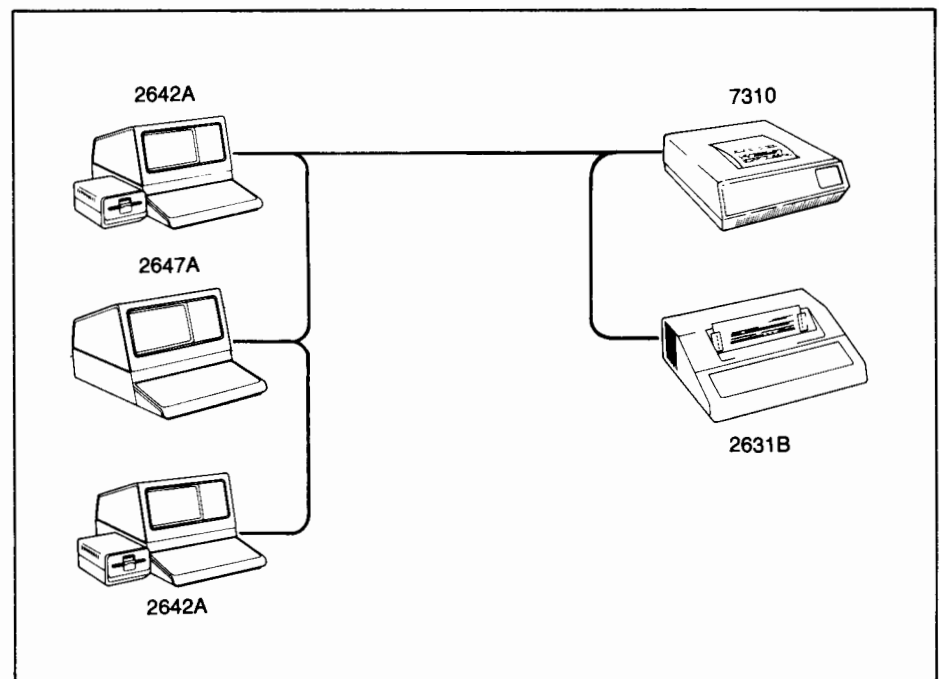
Using the optional Form character sets available on the printer, forms designed at the terminal can be easily copied using both the HP 7310A and the HP 2631B.

Three optional hardcopy printer interfaces are supported by the 2642A.

- A) Standard RS232C Serial Printer Interface
- B) HP 8-Bit Duplex Parallel Printer Interface
- C) HP Shared Peripheral Interface

The Standard RS232C Serial Printer interface allows the 2642A to connect to non-HP printers with RS232C support.

The HP Shared Peripheral Interface allows multiple HP 2642A and HP 2647A Intelligent Graphics Terminals to share various output devices. Up to 8 devices can be connected together.

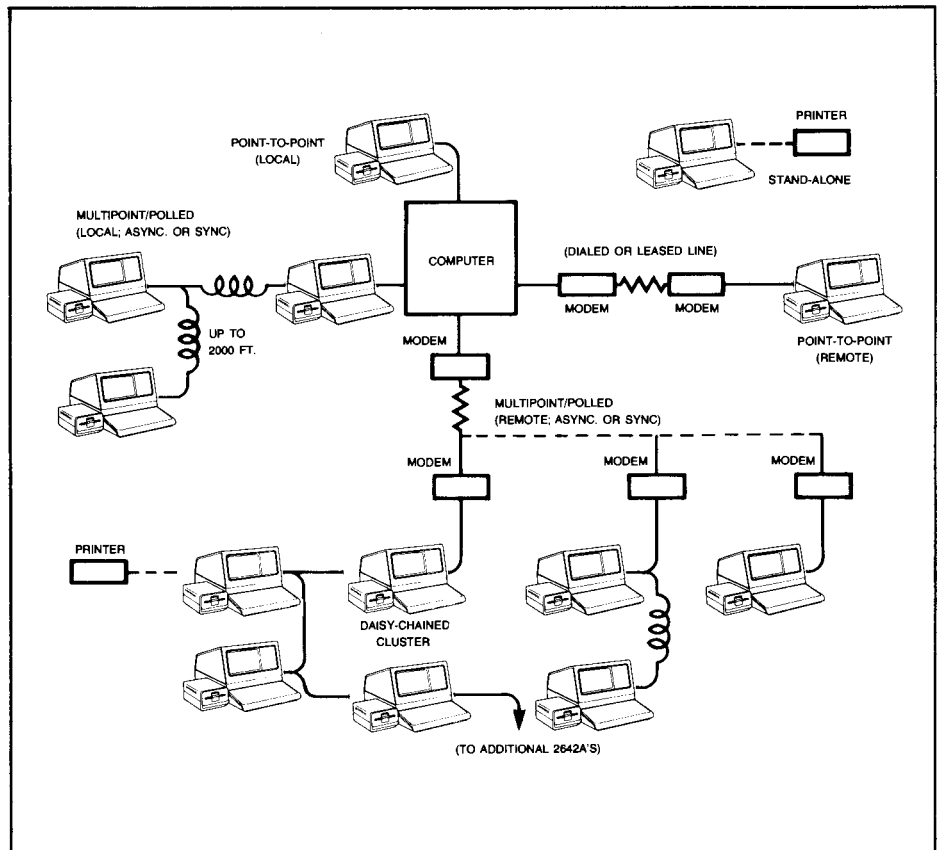


Shared Peripheral Interface

## Choice of Communications Capability

The Standard 2642A operates at up to 9600 baud with handshaking and offers asynchronous point-to-point data communications using an RS232C interface. Optional capabilities include asynchronous and synchronous polling for multipoint communications which allows multiple terminals to share communication resources or 20 mA DC current loop which allows terminal to computer connections of up to 1000 feet.

The 2642A supports automatic dialing when used with the HP 13265A 300 Baud Modem. The HP 13265A is a direct connect, Bell 103/113 compatible, originate-only modem. Phone numbers typed into the 2642A command line are automatically dialed. (U.S. only.)

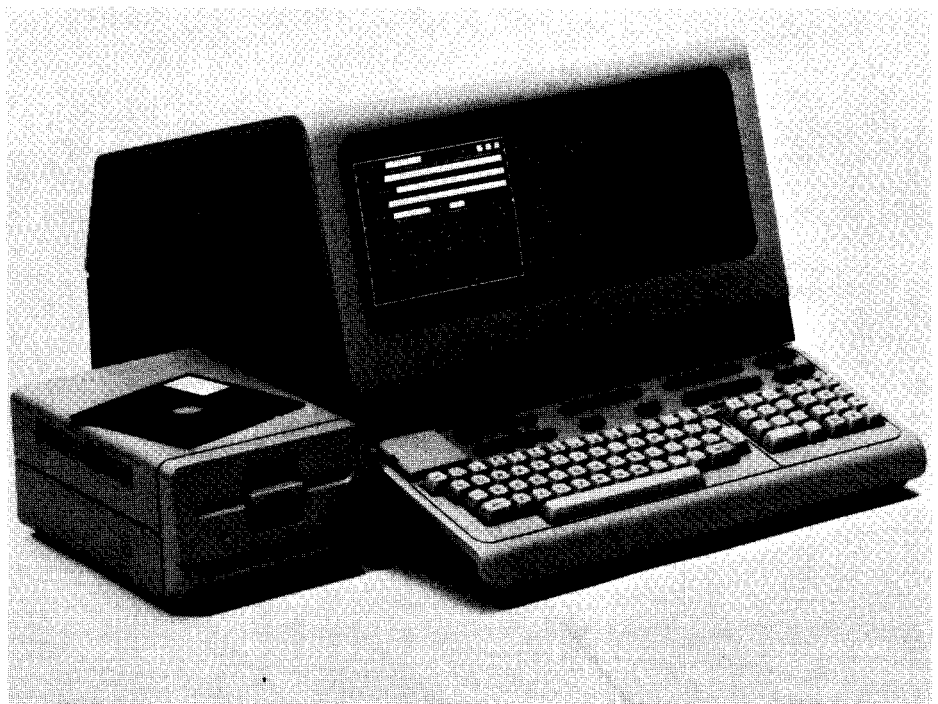
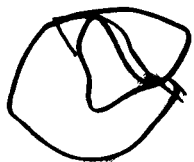


Flexible Data Communications

## High Reliability, Serviceability and Terminal Self Test

Every element of the 2642A terminal has been engineered for high reliability, ease of maintenance and rapid repair when needed. The modular design of the 2642A simplifies the serviceability of major terminal subsystems.

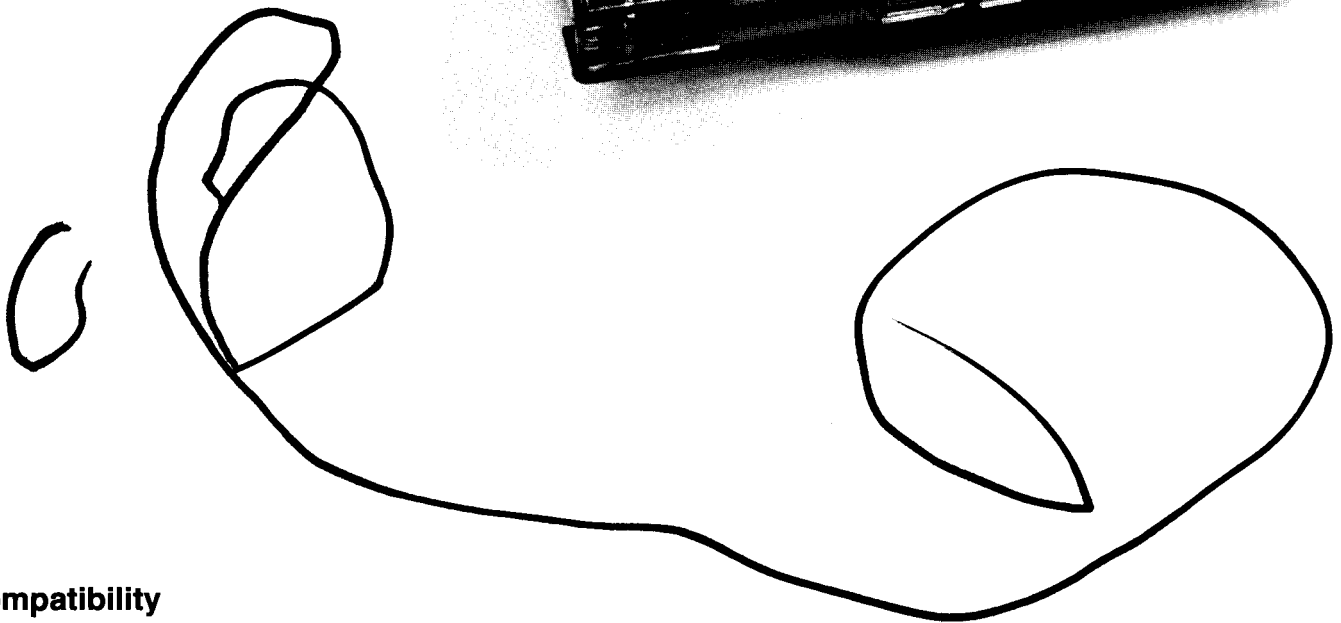
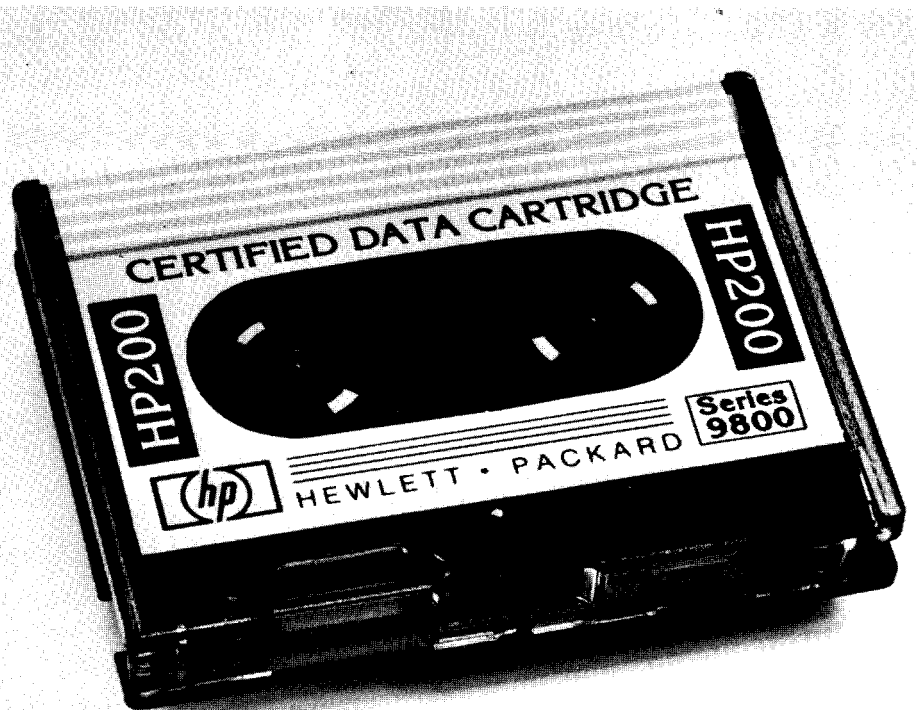
The Self Test routine gives the user a go/no-go indication that the terminal is working properly. Separate built-in programs verify operation of data communications, flexible disc drives, cartridge tape units and shared peripheral interface.



## Dual Integrated Cartridge Tapes

Option 070 provides the same dual integrated cartridge tape drives that have been offered on the HP Family of Display Terminals for years. These tape cartridges have been proven easy to use and highly reliable, providing up to 110K bytes of data storage. For many applications, cartridge tape will continue to be the preferred media. Their ruggedness and pocket size are still very attractive.

The 2642A uses the same cartridge tape format as found on the HP 2645A. Test, data and forms developed on 2645A's and 2642A's are completely interchangeable.



## Compatibility

In the continuing effort to protect and leverage software investments made by users, the HP 2642A escape sequences (control codes) are compatible with other 264X products. If performance compatibility in a particular application is a concern, testing is recommended.

The 2642A with Flexible Mini Disc Drive has firmware support to emulate most cartridge tape escape sequences. Programs written to access a 2645A cartridge tape unit can be used to drive the disc drive unit. When cartridge tape escape sequences are sent to the 2642A, with flexible mini disc, the firmware creates numbered files on the diskette. Most common 2645A cartridge tape commands are supported. Many applications designed to be run with the 2645A and cartridge tapes can be run with no modifications on the 2642A with mini flexible disc support.



## ORDERING INFORMATION

PRODUCT NUMBER	DESCRIPTION	PRICE
2642A	DISPLAY STATION Single 270K Flexible Mini Disc Drive, High Resolution Display, Full 128 Roman Character Set, Line Drawing, Mass and Large Character Alternate Sets, Text Preparation Mode, Simplified Forms Design, RS232C Data Communications, 60 Hz, 110 volt operation; 5 option slots. <i>*NOTE: Interface cable to computer system not included.</i>	\$6750
-005	UK character set	0
-015	50 Hz, 230V	0
-016	50 Hz, 115V	0
-032	Extended Data Communications Interface	150
-033	Asynchronous Multipoint Interface	250
-034	Synchronous Multipoint Interface	275
-070	Integrated Dual Cartridge Tape Deletes Flexible Mini Disc Drive support and adds 2 built-in cartridge tape transports. (requires 1 option slot).	-500
-072	Second Flexible Mini Disc Drive Adds second disc drive unit for total system storage of 540K bytes. (includes cable for connection to first disc drive).	1000
-096	Shared Peripheral Interface Provides shared interface for compatible devices. (includes cable; requires 1 option slot.)	600
<b>ACCESSORIES</b>		
13238A	TERMINAL DUPLEX REGISTER Adds support for HP 9866A or HP 9871A Line Printer (requires 1 option slot). Does not include interface cable.	100
13250B	SERIAL PRINTER INTERFACE Adds interface for connecting RS232 printing devices (requires 1 option slot). Does not include interface cable.	275
13254A	VIDEO OUTPUT INTERFACE Provides Video Signal for a compatible monitor or hard copy (requires 1 option slot)	150
13265A opt. 1	300 BAUD MODEM COMPACT MODEM FEATURES Full duplex, Bell 103/113 compatible, originate only, dual connect and local loopback test.	375
92190A	FLEXIBLE MINI DISCS (PURCHASE FROM HP COMPUTER SUPPLIES OPERATION) Box of 10 mini discs	70
98200A	MINI CARTRIDGE (PURCHASE FROM HP COMPUTER SUPPLIES OPERATION) Box of 5 mini cartridges	90
<b>CABLES</b>		
13232A	103/202 Modem Cable (male, 15 ft.)	50
13232B	12880A/12531D Cable (50 ft.)	100
13232C	RS232 Connector Cable (female, 5 ft.)	50
13232F	Current Loop Connector Kit (5 ft.)	75
13232G	13250 to RS232C Printer Cable (male, 15 ft.)	65
13232H	13250 to RS232C Printer Cable (female, 25 ft.)	65
13232J	13238 to 9871 Printer Cable (female, 6 ft.)	55
13232K	13254 to Video Hardcopy Printer Cable (15 ft.)	75
13232L	13254 to Compatible TV Monitor Cable (25 ft.)	75
13232M	13250B to European Modems Cable (male, 15 ft.)	75
13232N	103/202/201/208/209 Modem Cable (male, 15 ft.)	75
13232P	Modem/Multipoint Cable (male RS232C, male multipoint connector, 30 ft. total)	115
13232Q	Multipoint Cable (male multipoint, female multipoint connector, 30 ft. total)	90
13232R	Multipoint Extension Cable (male multipoint/female multipoint connector, 100 ft.)	75
13232S	13238 to 9866 line printer (6 ft.)	50
13232T	Power Protect Multipoint Cable (male multipoint connector with relays/female multipoint connector, 30 ft. total)	185
13232U	Modem Bypass Cable (female/female, 5 ft.)	50
13232Y	EMP Protect Cable (male, 15 ft.)	70



†Domestic U.S.A. prices. All prices subject to change without notice.

---

**ENVIRONMENTAL CONDITIONS**

---

Terminal Temperature (Free Space Ambient):	– 10° to 50°C (14°F to 122°F); Non-operating 10° to 40°C (41°F to 104°F); Operating
Humidity:	20% to 80%; Non-condensing
Altitude:	Sea level to 7620 m (50,000 ft.); Non-operating Sea level to 4572 m (15,000 ft.); Operating
Vibration*:	0.38 mm (0.015 inch) pp, 5 Hz to 55 Hz, 3 axis (Non-operating)
Shock*:	30 g, 11 ms, ½ sine (Non-operating)

\*Type tested to qualify for normal shipping and handling in original shipping container.

---

**PRODUCT SAFETY**

---

Product Meets:	United States: UL requirements for EDP equipment, office appliances, and teaching machines. Canada: CSA requirements for EDP equipment. Switzerland: SEV Germany: VDE, (Data Comm), FTZ (RFI). United Kingdom: GPO (Data Comm).
----------------	---

---

**PRODUCT SUPPORT**

---

Hardware Supplied:	2642A Display Station 1 13272A Flexible Mini Disc Drive (includes interface cable) 4 Blank Flexible Mini Discs
Documentation:	2642A User Instruction Disc (02642-90000) 2642A Users Manual (02642-90001) 2642A Reference Manual (02642-90002) 2642A Quick Reference Manual (02642-90006)
Hard Copy Interface:	RS232C Serial Printer Interface (opt.) HP 8 Bit Parallel Interface (opt.) HP Shared Peripheral Interface (opt.) Video Interface (opt.)
Installation:	All product preparation can be performed by the owner/user. Refer to reference manual supplied with unit for detailed instructions. HP assistance is provided for installation upon request and at prevailing rates.
HP Systems Support:	Refer to appropriate HP system data sheet for use and support of 2642A in these systems. When this product is used in a customer-assembled system, the overall operational responsibility of the system rests with the customer.
Warranty:	The HP 2642A is warranted against defects in materials and workmanship. Contact your local HP Sales Office for terms and conditions.

---



## Specifications

---

### GENERAL

---

Screen Size:	127 mm (5 inches) × 254 mm (10 inches)
Screen Capacity:	24 lines × 80 columns
Character Generation:	7 × 9 enhanced dot matrix, 9 × 15 dot character cell, non-interlaced raster scan.
Character Size:	2.46 mm (0.097 inches) × 3.175 mm (0.125 inches)
Character Set:	128 characters upper/lower case, control codes
Cursor:	Blinking-underline
Display Enhancements:	White on black, black on white (inverse video), half-bright, underline and blinking
Refresh Rate:	60 Hz (50 Hz optional)
Tube Phosphor:	P4
Implosion Protection:	Bonded implosion panel
Memory:	88 lines of 80 characters (displayed and/or nondisplayed); dynamically allocated.
Keyboard:	Detachable, user-definable soft keys, 18 control and editing keys, ten key numeric pad, cursor pad, auto-repeat, n-key rollover, 1.2 m (4 ft.) cable.
Option Slots:	5 available
5¼" Flexible Disc Drive System:	: 256 data bytes/sector, 16 sectors/track, 35 tracks/surface : 2 surfaces/disc, 270K bytes/disc : Normal disc media life: 200 hours : Data transfer speed 1K bytes/sec : HP Logical Interchange Format : Up to 2 drives supported on 2642A
Dual Cartridge Tapes (Option 070):	Read/write speed: 10 ips. Search/rewind speed: 60 ips. Recording: 800 bits per inch. Storage capacity: 110K bytes maximum per drive.

---

### DATA COMMUNICATIONS

---

Data Rate:	110, 150, 300, 1200, 2400, 4800, 9600 baud external switch selectable. Operations above 2400 baud may require nulls or handshake protocol to ensure data integrity. External clocking requires a TTL signal 16 × bps.
Communication Interface:	Asynchronous, point-to-point, RS232C; compatible with Bell 103A modems; limited compatibility with Bell 202/D/S/T modems. Choose either main or reverse channel line turnaround for half duplex operation; CCITT V.24, XON/XOFF. Current loop, split speed, custom baud rates (opt.) Asynchronous multipoint communications (opt.) Synchronous multipoint communications (opt.) Auto-dial with HP 13265A 300 Baud Modem (U.S. only).
Transmission Modes:	Full or half duplex, asynchronous.
Operating Modes:	On-line, off-line, character, block.
Parity:	Even, odd, none; switch selectable.
Peripheral Support:	Industry Standard RS232 (opt.) HP 8 Bit Duplex (opt.) HP Shared Peripheral (opt.) Video Interface (opt.)

---

### POWER REQUIREMENTS

---

Input Voltage:	115V (+10%, -23%) at 50/60 Hz (±0.2%) 230V (+10%, -15%) at 50 Hz (±0.2%)
Power Consumption:	95W to 150W maximum

---

### PHYSICAL SPECIFICATIONS

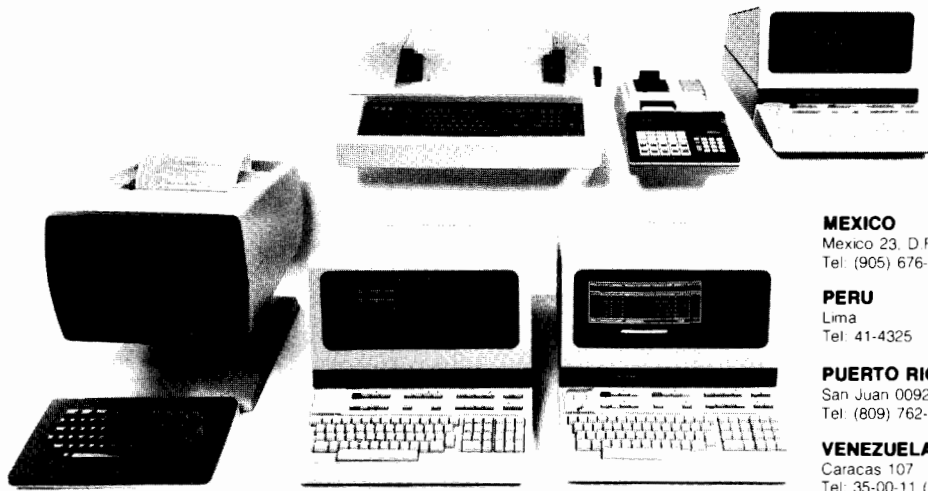
---

Display Monitor Weight:	21.9 kg (48.2 lbs.)
Keyboard Weight:	3.2 kg (7 lbs.)
Flexible Mini Disc Drive Weight:	4.4 kg
Display Monitor Dimensions:	444 mm (W) × 457 mm (D) × 342 mm (H), (17.5 inches (W) × 18 inches (D) × 13.5 inches (H)); depth including keyboard is 648 mm (25.5 inches).
Keyboard Dimensions:	444 mm (W) × 216 mm (D) × 90 mm (H), (17.5 inches (W) × 8.5 inches (D) × 3.5 inches (H)).
Flexible Mini Disc Drive Dimensions:	128 mm H × 180 W × 288 mm D

---

# 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

Fullerton  
Tel: (714) 870-1000  
Los Angeles  
Tel: (213) 970-7500  
Santa Clara  
Tel: (408) 249-7000  
Sacramento  
Tel: (916) 929-7222  
San Diego  
Tel: (714) 279-3200

#### COLORADO

Englewood  
Tel: (303) 771-3455

#### CONNECTICUT

New Haven  
Tel: (203) 389-6551

#### 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) 338-9466

### LOUISIANA

Kenner  
Tel: (504) 443-6201

### MARYLAND

Baltimore  
Tel: (301) 944-5400  
Rockville  
Tel: (301) 948-6370

### MASSACHUSETTS

Lexington  
Tel: (617) 861-8960

### MICHIGAN

Farmington Hills  
Tel: (313) 476-6400

### MINNESOTA

Roseville  
Tel: (612) 636-0700

### MISSOURI

Kansas City, Tel: (816) 763-8000  
Maryland Heights  
Tel: (314) 878-0200

### NEW JERSEY

Paramus  
Tel: (201) 265-5000

### NEW MEXICO

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

### NEW YORK

New York City  
Manhattan, Bronx  
Contact Paramus,  
NJ Office  
Tel: (201) 265-5000  
Brooklyn, Queens,  
Richmond  
Contact Woodbury Office  
Tel: (516) 921-0300  
Fairport  
Tel: (716) 223-9950  
Syracuse  
Tel: (315) 454-2486  
Woodbury  
Tel: (516) 921-0300

### NORTH CAROLINA

High Point  
Tel: (919) 885-8101

### OHIO

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

### OKLAHOMA

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

### OREGON

Tualatin  
Tel: (503) 620-3350

### PENNSYLVANIA

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

### TEXAS

Richardson  
Tel: (214) 231-6101  
Houston  
Tel: (713) 776-6400

### UTAH

Salt Lake City  
Tel: (801) 972-4711

### VIRGINIA

Richmond  
Tel: (804) 285-3431

### WASHINGTON

Bellevue  
Tel: (206) 454-3971

### WISCONSIN

West Allis  
Tel: (414) 541-0550

### Canada

#### ALBERTA

Calgary  
Tel: (403) 253-2713

#### BRITISH COLUMBIA

Vancouver  
Tel: (604) 254-0531

#### NOVA SCOTIA

Dartmouth  
Tel: (902) 469-7820

#### ONTARIO

Ottawa  
Tel: (613) 820-6483  
Mississauga  
Tel: (416) 678-9430

#### QUEBEC

Pointe Claire  
Tel: (514) 697-4232

### Central and South America

#### ARGENTINA

Buenos Aires  
Tel: 31-6063, 4, 5, 6

#### BRAZIL

06400 Barueri-SP  
Tel: 429-3222  
90000-Porto Alegre-RS  
Tel: (0512) 22-2998, 22-5621  
20000-Rio de Janeiro-GB  
Tel: 257-80-94-DDD (021)

#### EL SALVADOR

San Salvador  
Tel: 252787

#### GUATEMALA

Guatemala City  
Tel: 63627, 64786,  
66471-5, Ext. 9

### MEXICO

Mexico 23, D.F.  
Tel: (905) 676-4600

### PERU

Lima  
Tel: 41-4325

### PUERTO RICO

San Juan 00929  
Tel: (809) 762-7255

### VENEZUELA

Caracas 107  
Tel: 35-00-11 (20 lines)

### Europe

#### AUSTRIA

A-1205 Vienna  
Tel: (0222) 351620 29

#### BELGIUM

B-1170 Brussels  
Tel: (02) 672 22 40

#### DENMARK

DK-3460 Birkerød  
Tel: (02) 81 66 40

#### FINLAND

SF-00211 Helsinki 21  
Tel: 6923031

#### FRANCE

F-91401 Orsay  
Tel: (1) 907 78 25  
F-69130 Ecully  
Tel: (78) 33 81 25  
F-31300 Toulouse-Le Mirail  
Tel: (61) 40 11 12  
F-13721 Marignane  
Tel: (91) 89 12 36

#### GERMAN FEDERAL REPUBLIC

D-6000 Frankfurt 56  
Tel: (0611) 50 04-1  
D-7030 Boblingen,  
Württemberg  
Tel: (0703) 667-1  
D-4000 Düsseldorf  
Tel: (0211) 59711  
D-2000 Hamburg 1  
Tel: (040) 24 13 93  
D-3000 Hannover  
Tel: (0511) 46 60 01  
D-8012 Ottobrunn  
Tel: (089) 601 30 61/7

#### GREECE

GR-Athens  
Tel: 3237731

### IRELAND

Hewlett-Packard Ltd.  
King Street Lane  
Winnersh Wokingham  
GB-Berkshire RG11 5AR  
Tel: (0734) 78 47 74

### ITALY

I-20100 Milano  
Tel: (2) 6251 (10 lines)  
I-35100 Padova  
Tel: (49) 66 48 88  
I-00143 Roma  
Tel: (06) 54 69 61

### LUXEMBURG

B-1170 Brussels  
Tel: (02) 672 22 40

### NETHERLANDS

Amstelveen  
Tel: (020) 47 20 21

### NORWAY

N-1344 Haslum  
Tel: (02) 17 11 80

### SPAIN

E-Madrid 16  
Tel: (1) 458 26 00 (10 lines)  
E-Barcelona 17  
Tel: (3) 203 6200 (5 lines)

### SWEDEN

S-161 20 Bromma 20  
Tel: (08) 730 05 50

### SWITZERLAND

CH-8952 Schlieren Zurich  
Tel: (01) 730 52 40  
CH-1219 LeLignon-Geneva  
Tel: (022) 96 03 22

### UNITED KINGDOM

GB-Winnersh, Wokingham  
Berks RG11 5AR  
Tel: (0734) 78 47 74  
GB-Altrincham  
Cheshire WA14 1NU  
Tel: (061) 928 6422  
GB-Thornton Heath CR4 6XL  
Surrey  
Tel: (01) 684 0103-8

### USSR

Moscow 101000  
Tel: 207 59 24

### Africa, Asia, Australia

#### AUSTRALIA

Fyshwick A.C.T. 2609  
Tel: 95-2733  
Pymble, New South Wales  
Tel: 449-6566  
Doncaster East, Victoria  
Tel: 89-6351  
Parkside, S.A.  
Tel: 272-5911  
Nedlands, W.A.  
Tel: 86-5455

### CYPRUS

CY-Nicosia  
Tel: 45628/29

### HONG KONG

Hong Kong  
Tel: H-255291-5

### INDIA

Bombay 400 025  
Tel: 45 78 87  
New Delhi  
Tel: 634770 & 635166  
Calcutta  
Tel: 23-0131  
Madras  
041-379  
Bangalore  
Tel: 55668  
Secunderabad  
Tel: 70126, 70127  
Cochin  
Tel: 32069, 32161, 32282

### ISRAEL

Tel-Aviv  
Tel: 38973

### JAPAN

Suginami-ku, Tokyo  
Tel: 03-331-6111  
Osaka, 532  
Tel: 06-304-6021

### NEW ZEALAND

Wellington  
Tel: 877-199  
Pakuranga  
Tel: 569-651

### PHILIPPINES

Manila  
Tel: 85-35-81, 85-34-91

### SINGAPORE

Singapore  
Tel: 270-2355

### SOUTH AFRICA

Sandton, Transvaal 2144  
Tel: 802-1040/8

### TAIWAN

Taipei  
Tel: 389160-4, 3141010,  
3715121  
Kaohsiung  
Tel: (07)242318