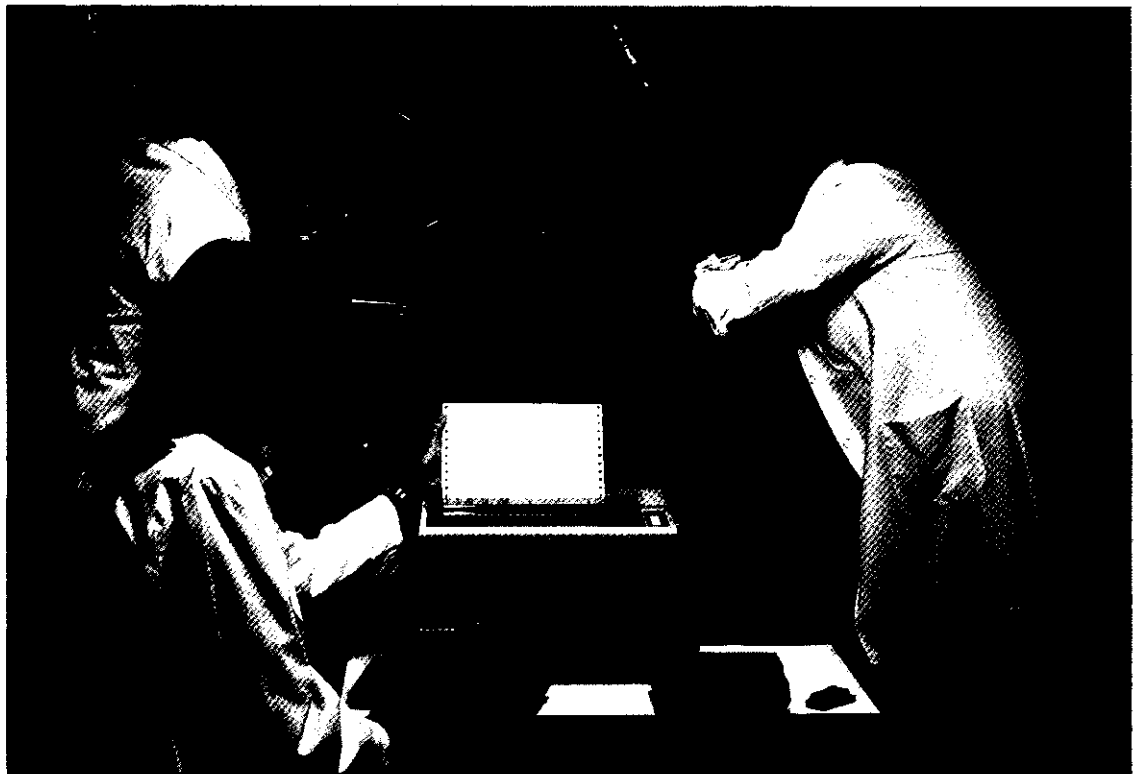




HEWLETT  
PACKARD

# HP-75C Portable Computing System



## Here's How An HP-75C Portable Computing System Can Help You!

**Small enough to bring to your problems; powerful enough to solve them.**

Hewlett-Packard didn't build just another computing system. We designed a battery-powered computer that's so small you can use it anytime, anywhere. And, we made it so powerful that you can use it every day, in a variety of applications. When you're on the road, with a customer, or back in the office, an HP-75C portable computing system goes with you, providing immediate answers whenever you need them. You'll find the HP-75C is a work partner you'll want to consult frequently throughout the day.

## A Powerful System That Fits In Your Briefcase.

An HP-75C Portable Computer is a lightweight (26 oz.), battery-powered problem-solver with trim-line dimensions that make it an ideal traveling companion. But don't let the HP-75C's small size fool you. Packed into the computer are the tools you need to manipulate equations, perform immediate data collection and computation, write memos, create files, and more. With 16K bytes of memory, expandable to 24K, there's plenty of room to store information and appointments, write programs, and set alarms. In addition, the HP-75C has three module ports that enable you to plug in up to 48K of applications ROM without affecting user memory. The HP-75C's multiple file structure gives you instant access to your most commonly used programs. The computer's touch-type keyboard is typewriter-like for fast data entry and allows you to redefine over 190 different keys and combinations. And, with the built-in card reader, HP-IL interface and extensive BASIC, you'll communicate easily with the HP-75C. You'll want to turn over more and more of your problems to HP's new HP-75C portable computing system, resulting in faster, more informed decisions.

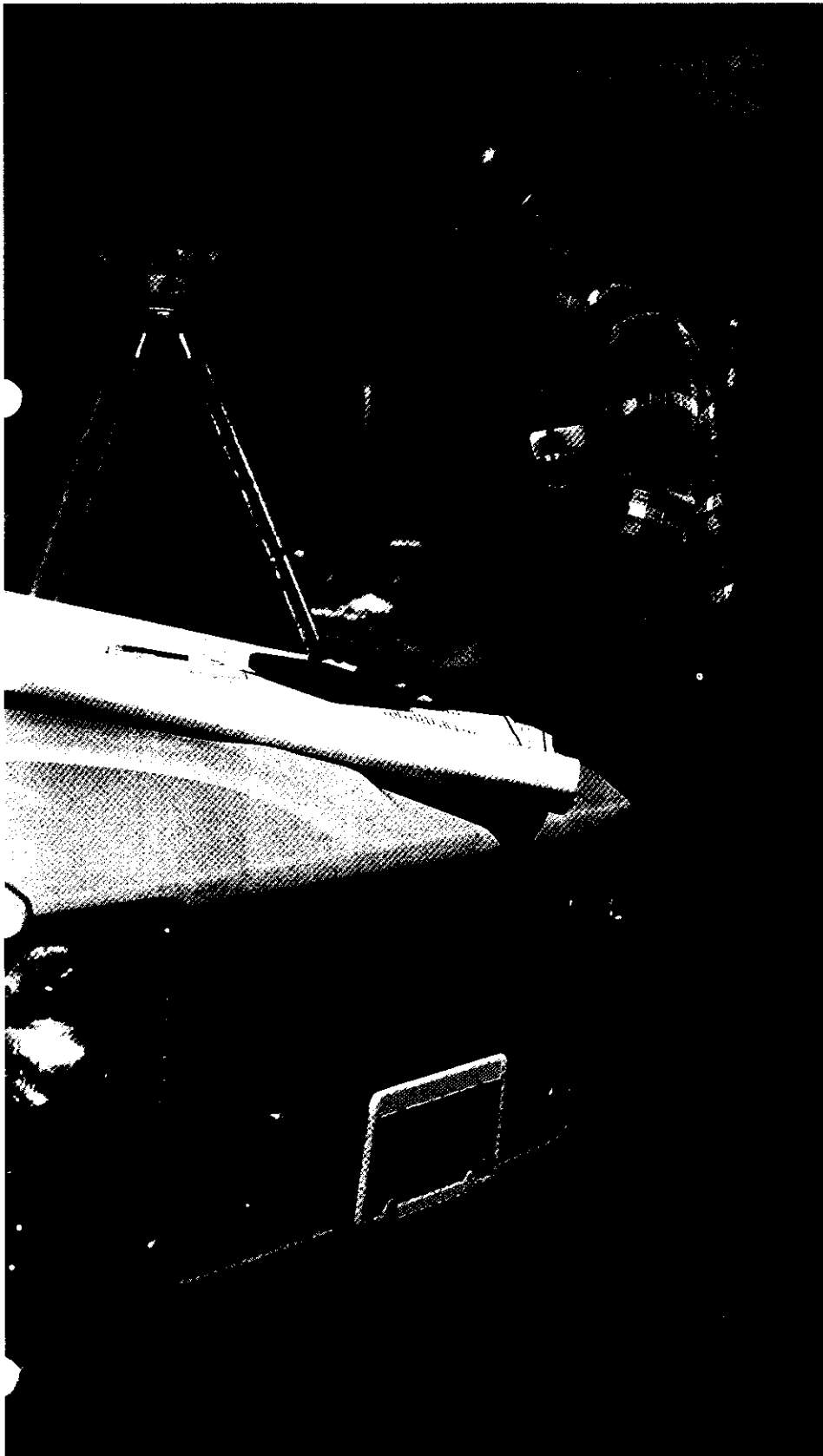
## A System That Adapts To Your Needs.

Surrounding the HP-75C is a wealth of hardworking peripherals and enhancements, plus applications software that take the tedium out of problem solving. If you need more space for storing information, simply plug in a memory module or a cassette drive. Add a printer for hard copy output, a plotter for color graphics, even a multimeter for low cost, lab bench applications. Then complement your system with software for solutions in engineering, finance, real estate, and more. And you can write your own BASIC programs. No matter what your computational needs are, the HP-75C can easily adapt.

## As Versatile As You Are.

We think you'll find the HP-75C your hardest worker and your most valued tool. Here are just a few examples where individuals in diverse fields have customized an HP-75C system for their unique applications and general convenience. As you read through this brochure, you'll notice how an HP-75C provides information quickly, easily, and conveniently. Then, explore the possibility of an HP-75C in your world. You may buy one for a specific application, but you'll soon discover it has a thousand uses. In fact, the HP-75C may well be the only portable computer you can't afford to be without.





## Computation Wherever You Go.

When out in the field, your HP-75C will bring you the power and convenience of immediate calculation and data storage. For example, imagine a surveyor who collects field data consisting of azimuths or bearings and distances. With his knowledge of HP BASIC, he can program the battery-powered HP-75C to store his data points and calculate the northings and eastings of each station. He can also assign his own error-of-closure program to one of the many HP-75C's redefinable keys, running the program at the press of a button to check his readings while on location. The HP-75C enables the surveyor to march about the traverse, then calculate any adjustments.

The surveyor can also use the HP-75C to store angles and distances for side shots to benchmarks or other reference points, for determining the volume in cubic yards for cuts and fills, for calculating areas, or for converting from azimuths to bearings and back.

And, for storing his data off-line, the HP-75C has a built-in card reader that allows him to conveniently store his data quickly and inexpensively on lightweight magnetic cards. When he needs to load the information back into the computer, he merely pulls the magnetic card through the card reader. The HP-75C will even signal to let him know if he has loaded the information incorrectly. If his data changes frequently, he can easily record the new information on the card.

The HP-75C Portable Computer helped the surveyor to collect a large number of data points, then enabled him to transform that data into the crucial information he requires.

When your job demands accurate answers while in the field, the battery-powered HP-75C can make the difference between a good job and a perfect one.

## An Asset That Pays For Itself.

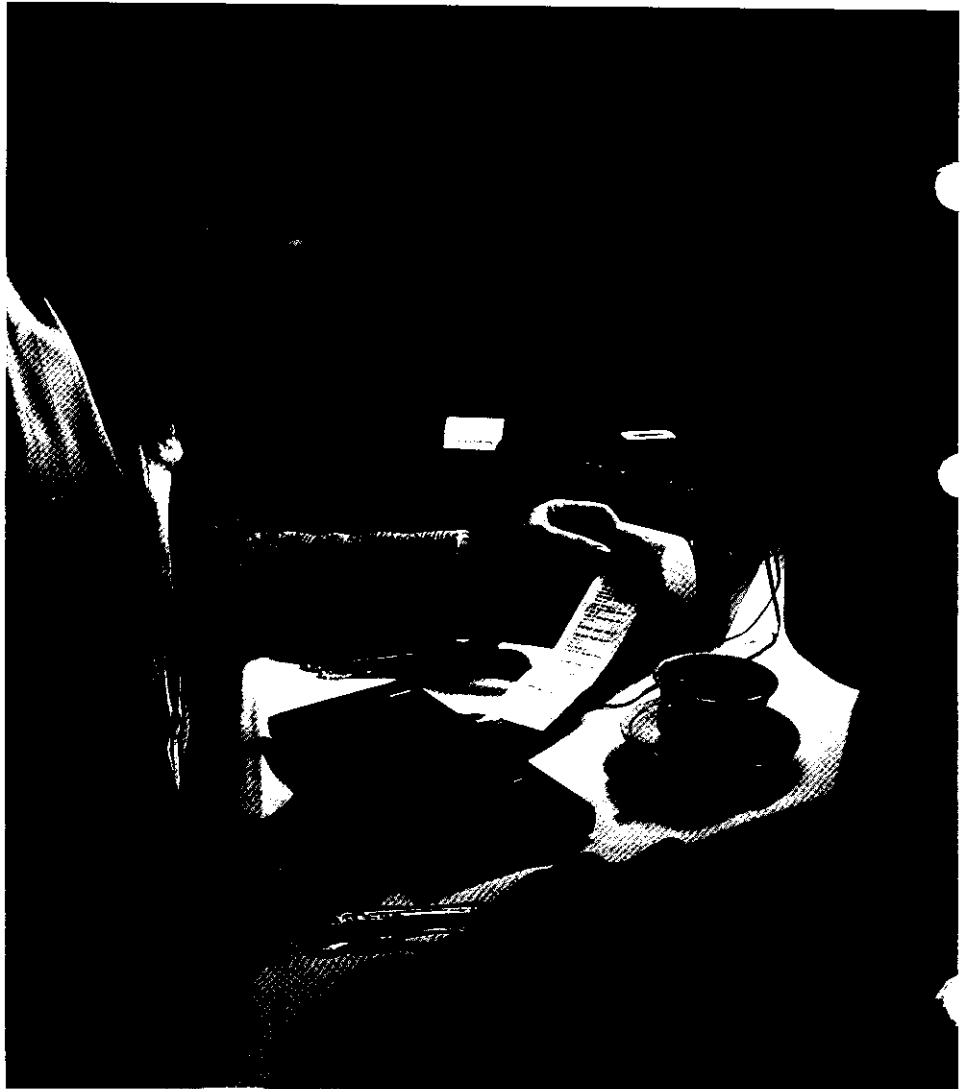
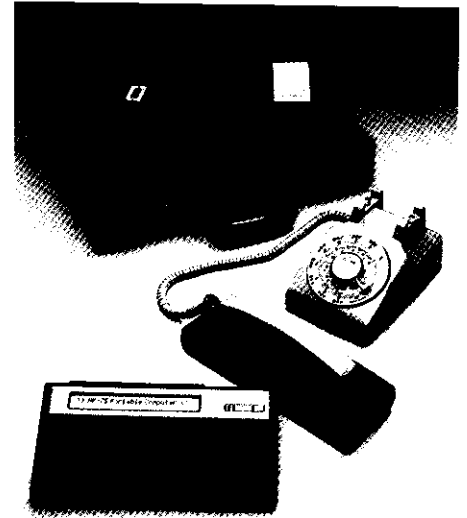
In the world of financial analysis, a client's investment decision depends upon the analyst's access to the most complete and up-to-date information available. For the analyst on the road, the information she requires resides in a central computer that can be accessed conveniently over the phone lines. With the help of her HP-75C Portable Computer and the HP-IL Modem (acoustic phone coupler)\*, she can log onto a computer network like Dow Jones News/Retrieval Service and be brought up to date on the current financial news. She can then review specific items of interest for her clients. The analyst can store the information in the HP-75C's ample memory and recall it when she is ready to run a regression analysis for portfolio risk management. By loading in her own specialized regression analysis program from her Digital Cassette Drive, she can determine the slope for comparing risk versus return in her client's portfolio.

The analyst then makes an appointment to meet with her client over lunch, placing the appointment into the HP-75C's memory. She can even specify whether she wants an audible tone and how often it will sound to signal the appointment due. At the scheduled time, the HP-75C will sound to get her attention and display the appointment reminder—even if she's in the middle of a calculation. She takes the HP-75C with her to the meeting to perform interest rate and tax computations. She also takes along the battery-powered Digital Cassette Drive because it contains the client's file and financial data for the analyst's reference.

With the battery-powered, portable printer connected to the HP-75C, she can print out a listing of financial decision alternatives for her client's immediate reference. The HP-75 is the first computer for professionals on the move.

The HP-75C portable computing system made crucial information accessible to the financial analyst and allowed her to manipulate it with ease. It also helped her make a smooth presentation to her client and provided hard copy output of the portfolio that her client can keep for quick reference.

In any profession, the value of a tool is related to its versatility and return on investment. A flexible HP-75C portable computing system is one investment you can make that will easily pay for itself.





## Take Control Of Your Research.

When it comes to automated instrument control, engineers can benefit from the sophistication and small size of an HP-75C portable computing system. Engine test engineers need to measure thermocouple output directly for engine oil and coolant temperatures. At the same time, they need to monitor the fuel flow rate as well as air intake velocities to determine the efficiency of the engine. Because the HP-75C has a built-in HP-IL interface, they can connect the portable computer to an HP 3421A Data Acquisition/Control Unit to measure these temperatures, rates and velocities.

The engineers can program the HP-75C to turn the test system on and off at a designated time, and to collect the measurement data from the HP 3421A at specified intervals. By adding a Digital Cassette Drive to the HP-IL loop, the HP-75C can store the information off-line on handy mini-data cassettes. If the engineers need immediate hard copy output of measurement changes over a period of time, they can connect a full-page impact printer to the system. The HP-75C will tell the printer to print out the information specified. Best of all, the HP-75C can do all this and the engineers don't have to be there.

If the engineers desire multiple line display of the measurement data, they can add a video interface and monitor to the system. With the help of the monitor, the engineers will be able to make any necessary changes to the test engine system without having to wait for a print out.

The HP-75C is a sophisticated controller with the added plus of low cost automation. It helped the engineers make reliable, continuous readings to investigate the sensitivity of the system to a variety of operating conditions.

When your applications call for a sophisticated, low cost controller, look to an HP-75C portable computing system to give you control of your equipment or research. An HP-75C can free you from tedious information gathering, so you can concentrate on evaluating results and making decisions.

# With You Into The Future.

HP has eliminated the worry behind the question, "Should I buy now or wait until the next portable computer hits the market?", by introducing a new interfacing concept called HP-IL (Hewlett-Packard Interface Loop). HP-IL means that battery-powered devices can "talk" to one another. Now, a portable computer such as the HP-75C, can easily control a variety of HP-IL devices, such as an HP-IL Digital Cassette Drive or Printer. But the significance of HP-IL stretches beyond the friendly exchange of information between low cost, battery-powered products. It also means that your purchase of an HP-IL compatible product is your insurance against obsolescence. HP-IL will enable you to expand your system while maintaining system versatility. Watch for new HP-IL peripherals and enhancements to be added to the ever-growing Series 70 product line.

## HP-75C Software

To help you customize your HP-75C portable computing system, Hewlett-Packard provides several sources of hardworking, easy-to-use software. Choose among the HP-75C Solutions Books, or, if you prefer, purchase the programs individually from the Users' Library. You can even contribute to the Library any BASIC programs you have developed on the HP-75C. The HP-75C will be supported by the HP PLUS independent software program. Software accepted into the HP PLUS program will be developed and supported by independent software developers who are experts in their application fields.

In addition, several software packages are currently planned by HP or by independent software vendors. This software is intended to provide or enhance the following capabilities of the HP-75C: electronic spreadsheet, time management, data management, text editing, advanced math, and data communications. In early 1983, HP will introduce five powerful software pacs, containing convenient plug-in modules, in the following disciplines: Surveying, Electrical Engineering, Real Estate, Finance and Data Analysis.

## HP-75C Solutions Books

Math I	Finance
Math II	I/O Utilities
Math III	Real Estate
Games	Statistics
Electronics	Test Statistics

## HP-75C Accessories

Rechargeable Battery Pack	82001B
Reserve Power Pack	82004A
Recharger/AC Adapter	82059B
Security Cradle	82701A*
Field Case	82703A
30 Blank Mag Card Pac	82707A
100 Blank Mag Card Pac	82708A*
Overlay kit (Qty. 5)	82710A
Notebook Card Holder (Qty. 5)	82715A
Blank Overlay Kit (Qty. 50)	82717A*

## System Commands

ALARM OFF	LOCK
ALARM ON	MARGIN
ASSIGN IO	MERGE
AUTO	NAME
BEEP OFF	OFF IO
BEEP ON	OPTION ANGLE
BYE	DEGREES
CAT	OPTION ANGLE
CAT ALL	RADIANS
CAT CARD	PACK
CLEAR LOOP	PLIST
CLEAR VARS	PRINTER IS
CONT	PROTECT
COPY	PURGE
DEFAULT OFF	PWIDTH
DEFAULT ON	RENAME...TO
DEF KEY	RENUMBER
DELAY	RESTORE IO
DELETE	RUN
DISPLAY IS	STANDBY OFF
EDIT	STANDBY ON
ENDLINE	TRACE FLOW
FETCH	TRACE OFF
FETCH KEY	TRACE VARS
INITIALIZE	TRANSFORM
LIST	UNPROTECT
LIST IO	WIDTH

## String Functions

CAT\$	KEY\$	TIMES\$
CHR\$	STR\$	UPRC\$
DATE\$		

## Time Mode Commands (Nonprogrammable)

ADJUST	EXTD	SET
EXACT	RESET	STATS

## Basic Statements

ASSIGN #	ON ERROR
BEEP	ON TIMER #
CALL	ON...GOSUB
DATA	ON...GOTO
DEF FN	OPTION BASE
DIM	POP
DISP	PRINT
DISP USING	PRINT #
END	PRINT USING
END DEF	PUT
FOR...TO...STEP	RANDOMIZE
GOSUB	READ
GOTO	READ #
IF...THEN...ELSE	REAL
IMAGE	REM
INPUT	RESTORE
INTEGER	RESTORE #
LET	RETURN
LET FN	SHORT
NEXT	STOP
OFF ERROR	WAIT
OFF TIMER #	

## Numeric Functions

ABS	EXP	PI
ACOS	FLOOR	POS
ANGLE	FP	RAD
ASIN	INF	RES
ATN	INT	RM <sup>n</sup>
CEIL	IP	RN <sub>i</sub>
COS	LEN	SEC
COT	LOG	SGN
CSC	LOG10	SIN
DATE	MAX	SQR
DEG	MEM	TAN
EPS	MIN	TIME
ERRL	MOD	VAL
ERRN	NUM	

## Arithmetic Operators

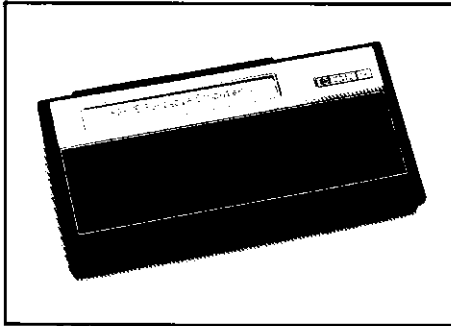
+, -, \*, /, ^, DIV or \

## Logical Operators

AND, OR, EXOR, NOT

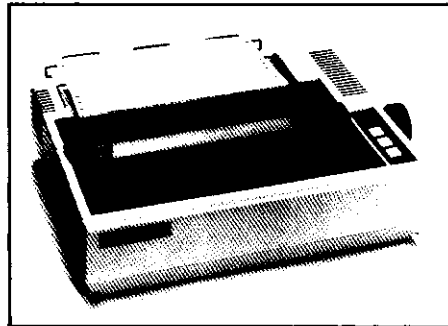
## Relational Operators

=, <> or #, >, >=, <, <=



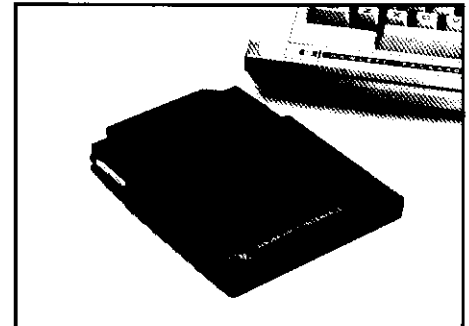
### HP-75C Portable Computer

- Battery-powered
- Powerful BASIC language
- Up to 24K system RAM
- Built-in HP-IL Interface and card reader
- Touch-type, typewriter-like keyboard
- Time and Appointment modes



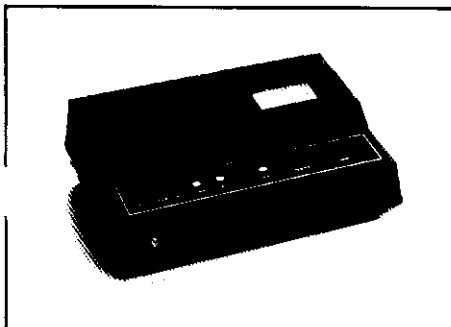
### HP 82905B Impact Printer Opt. 248

- Bidirectional printing at 80 characters per second (132 compressed)
- Dot-mode graphics
- Five selectable print modes



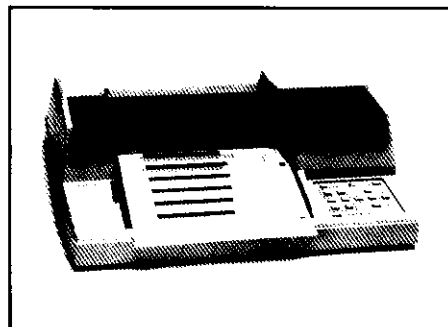
### HP 82938A HP-IL/Series 80 Interface

- Compatibility with Series 80 computers
- Enables a Series 80 computer to be either a system controller or a device when on the HP-IL loop



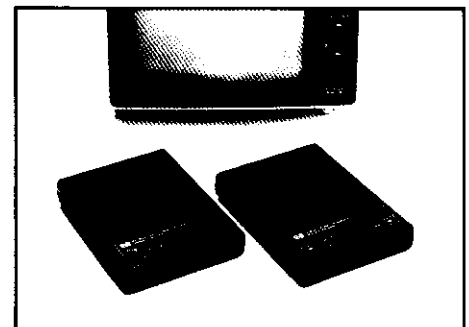
### HP 82161A Digital Cassette Drive

- 128K user bytes
- File-by-name data structure
- Digitally-certified media
- Battery-powered



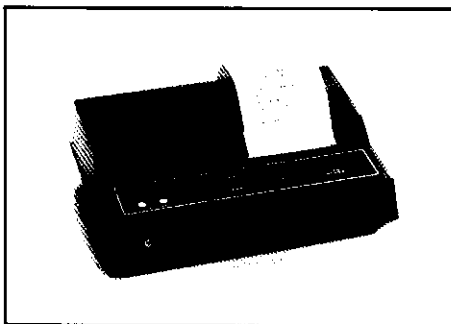
### HP 7470A Graphics Plotter\* Opt. 003

- High-quality, hard copy graphics
- Uses plain paper or overhead transparencies
- English and special characters
- Text written in any direction, with or without slant, and in many sizes.
- Two-pen capacity



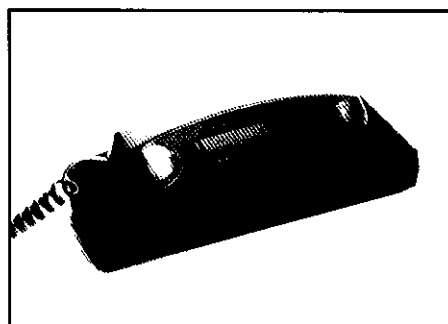
### HP 82165A GPIO Interface

- Communicates with any 8- or 16-bit parallel bus structure
- Comes with power supply



### HP 82162A Printer/Plotter

- 24-character line
- Automatic centering and left/right justification
- Parse mode (automatically breaks lines at spaces)
- Briefcase portable
- Battery-powered



### HP 82168A HP-IL Acoustic Coupler (Modem)†

- Bell 103 compatibility
- Battery-powered
- Acoustic coupling
- Sends/receives at 300 baud

### HP 82163A Video Interface

- 32 characters by 16 lines
- Compatible with television sets or video monitors
- Two-screen memory

### HP 82912A 9" Video Monitor HP 82913A 12" Video Monitor

- Expands display capability



HP-IL compatibility ensures that these peripherals will work with Series 40, Series 70, and Series 80 computers.

\* Available November 1982.

† Available early 1983.

## HP-75C Specifications

### Dynamic Range:

Real precision: -9.9999999999E499 to -1E-499, 0, 1E-499 to 9.9999999999 E499

Short precision: -9.9999E99 to -1E-99, 0, 1E-99 to 9.9999E99

Integer precision: -99999 to 99999

Variable types: Numeric, String, Numeric array

### Clocks & Timers:

Perpetual clock calendar, 12-hour or 24-hour format. Time function returns time to the nearest millisecond.

Accuracy range: 15 seconds/month to 3 minutes/month.

Adjustable clock speed:  $\pm 10\%$

### Beeper:

The beeper is programmable with parameters for duration and tone. The frequency range is approximately 1 to 1600 Hz.

Redefinable Keys: 194

### Multiple File Structure:

The number of files in HP-75C memory is limited only by the amount of available RAM.

### Size & Weight:

12.7 x 25.4 x 3.2 cm (5 x 10 x 1.25 in.)

737.1 g (26 oz.)

### Operating System:

System ROM: 48K RAM: 16K

Enhancement Memory Module

(HP 82700A): 8K

Maximum system RAM (with Memory Module): 24K

Three 16K plug-in ROM's for a maximum of 48K ROM

### Display:

Liquid-crystal display

Size: 14.0 x 4.06 cm (5.5 x 1.6 in.)

Capacity: 96 characters per line

Window size: 32 characters

Character set: 256 characters

Character font: 5 x 9 dot matrix

### Power Requirements:

Three AA NiCad batteries (HP 82001B Battery Pack)

Battery current: RUN mode: 25 mA

STANDBY mode: 14 mA SLEEP mode: 20  $\mu$ A

### Environmental Limits:

Operating temperature: 0 to 45°C (32 to 113°F)

Recharging temperature: 10 to 40°C (50 to 104°F)

Storage temperature: -40 to 55°C (-40 to 131°F)

Operating & storage humidity limits: 0 to 95% relative humidity

For additional information or a demonstration of Hewlett-Packard portable computers, visit your nearest HP dealer. For the location and number of the dealer nearest you, call toll free 1-800-547-3400. In Alaska, Hawaii and Oregon call (503) 758-1010. TTY users with hearing or speech impairments please dial (503) 758-5566.

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