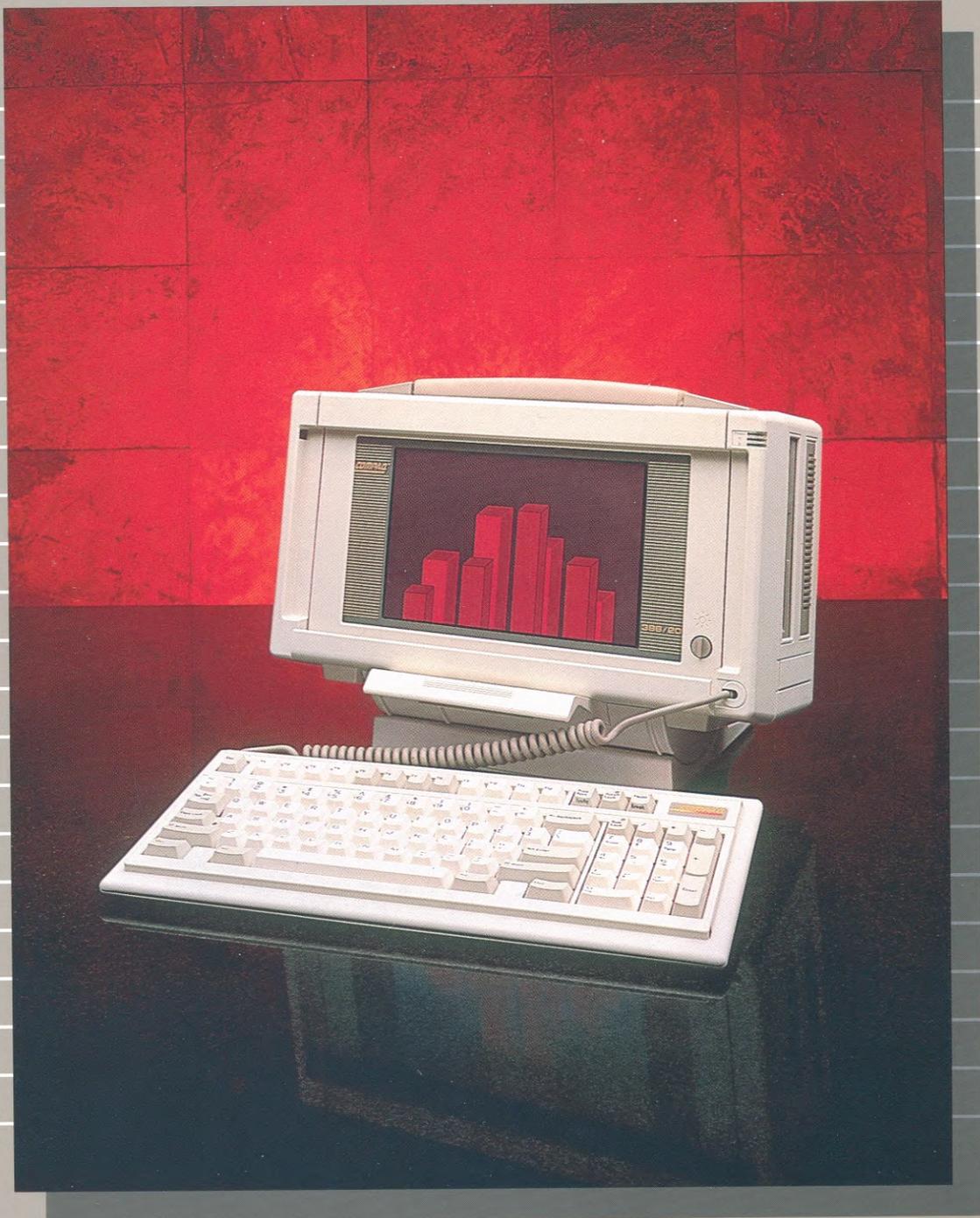


COMPAQ PORTABLE 386™  
Personal Computer  
*Features/Specifications*



**COMPAQ**®

It simply works better.

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## NOTICE

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COMPAQ PORTABLE 386™ PERSONAL COMPUTER FEATURES/SPECIFICATIONS

First Edition (September 1987)

Computing devices will be available for sale after FCC certification.

## Introduction

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The COMPAQ PORTABLE 386™ Personal Computer provides advanced 80386 architecture, high-performance, full personal computer functionality in a small, lightweight portable package that maintains compatibility with today's and tomorrow's advanced user environments. The COMPAQ PORTABLE 386 is the most advanced portable personal computer available.

The COMPAQ PORTABLE 386 uses the second-generation industry-standard 80386 microprocessor operating at a processing speed of 20 MHz. It runs applications up to 25% faster than 16-MHz 80386-based personal computers.

The COMPAQ PORTABLE 386 has a wide range of mass storage options for maximum system flexibility, and offers system memory expansion capability that is unsurpassed by any portable personal computer

system. It also offers the high-resolution text and graphics capabilities of the COMPAQ® Dual-Mode Plasma Display, and it features the new full-size COMPAQ Portable Enhanced Keyboard. Optional features are available, such as a 20-MHz 80387 Coprocessor, Expansion Unit with two full-size 8/16-bit industry-standard expansion slots, 40-Megabyte Fixed Disk Drive Backup (tape) Expansion Unit and the COMPAQ 1200-Baud or COMPAQ 2400-Baud Internal Modem, which offer the user the flexibility to expand the system as his needs change.

The COMPAQ PORTABLE 386 continues the Compaq tradition of providing quality products while offering the right combination of performance, functionality, and portability.

## Standard Models and Options

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### MODEL 40

- 20-MHz 80386 Microprocessor
- 1 Megabyte of 32-bit, 80-ns Random-Access Memory (RAM)
- 5/4-Inch 1.2-Megabyte Diskette Drive
- 40-Megabyte Fixed Disk Drive (*Average Access Time Less Than 30 Milliseconds*)
- COMPAQ Dual-Mode Plasma Display
- COMPAQ Portable Enhanced Keyboard (*12 Programmable Function Keys*)
- Socket for 20-MHz 80387 Coprocessor
- Asynchronous Communications Interface
- Parallel Interface
- RGBI Interface
- Real-Time Clock/Calendar
- 145-Watt Steady-State Power Supply (*160-Watt Peak*)
- Automatic Line Selecting Feature 110V/220V

### MODEL 100

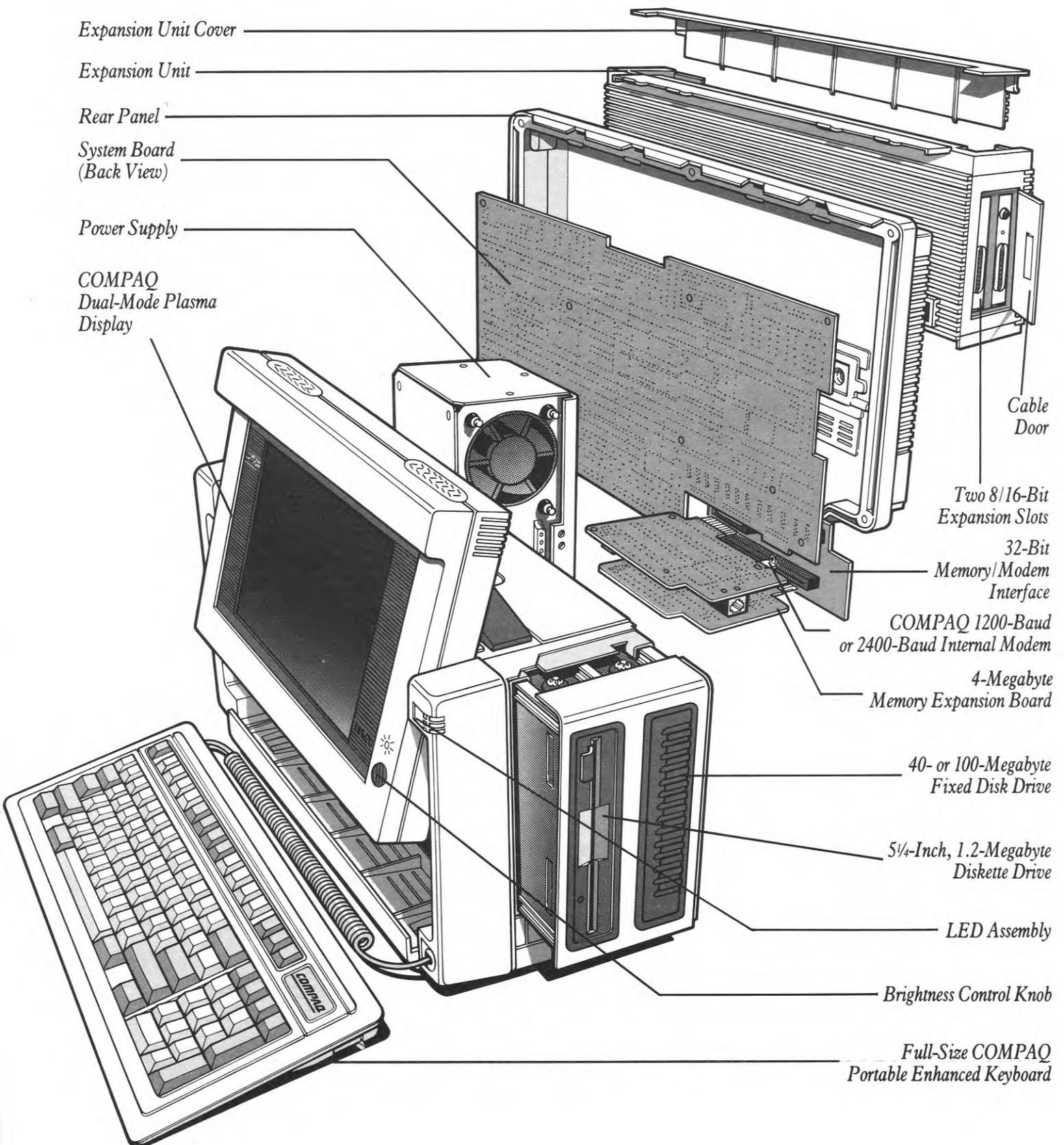
- 20-MHz 80386 Microprocessor
- 1 Megabyte of 32-bit, 80-ns Random-Access Memory (RAM)
- 5/4-Inch 1.2-Megabyte Diskette Drive
- 100-Megabyte Fixed Disk Drive (*Average Access Time Less Than 25 milliseconds*)
- COMPAQ Dual-Mode Plasma Display
- COMPAQ Portable Enhanced Keyboard (*12 Programmable Function Keys*)
- Socket for 20-MHz 80387 Coprocessor
- Asynchronous Communications Interface
- Parallel Interface

- RGBI Interface
- Real-Time Clock/Calendar
- 145-Watt Steady-State Power Supply (*160-Watt Peak*)
- Automatic Line Selecting Feature 110V/220V

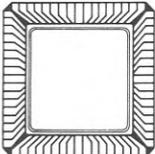
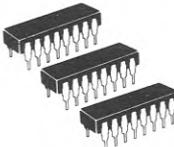
### OPTIONS

- 100-Megabyte Fixed Disk Drive (*Average Access Time Less Than 25 Milliseconds*)
- 40-Megabyte Fixed Disk Drive Backup (Tape) Expansion Unit
- 360-Kbyte Diskette Drive
- COMPAQ 1200-Baud Internal Modem
- COMPAQ 2400-Baud Internal Modem
- Expansion Unit
- 32-Bit Memory/Modem Interface Board
- 1- to 2-Megabyte Memory Expansion Board
- 4-Megabyte Memory Expansion Board
- 4-Megabyte Memory Extension Board
- 1-Megabyte Memory Upgrade Kit
- 20-MHz 80387 Coprocessor
- Second Asynchronous Communications Interface Board
- Asynchronous Communications/Parallel Printer Board
- COMPAQ Color Monitor
- COMPAQ Enhanced Color Graphics Board
- Desktop Pedestal
- Carrying Case (Nylon or Leather)
- MS-DOS®/BASIC Version 3, Release 3.2 or Above
- COMPAQ PORTABLE 386 Technical Reference Guide
- COMPAQ Enhanced Color Graphics Board/COMPAQ Color Monitor Technical Reference Guide

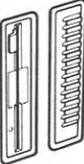
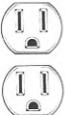
# Features Illustration



# COMPAQ PORTABLE 386 Features/Functions/Benefits

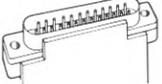
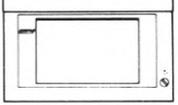
Feature	Function	Benefit
<b>MICROPROCESSOR</b>		
	<ul style="list-style-type: none"> <li>• 20-MHz 80386 microprocessor</li> <li>• 32-bit architecture</li> <li>• 20-MHz 80387 coprocessor (optional)</li> <li>• Compatible with the industry standard</li> </ul>	<ul style="list-style-type: none"> <li>• Processes information up to 25% faster than 16-MHz 80386-based personal computers</li> <li>• Provides the ability to process data at 32 bits per CPU cycle (versus 8- or 16-bit processing)</li> <li>• Increases the calculation speed of math-intensive applications utilizing the new 20-MHz 80387 coprocessor</li> <li>• Provides speed modes that simulate the processing speed of existing personal computers. Maintains compatibility with software designed for 80286-based systems while providing higher processing speed</li> <li>• Increases user productivity by processing more information in less time</li> <li>• Increases user productivity by reducing the time required for processing sophisticated applications. Provides the opportunity for minicomputer-type applications to be done practically on a personal computer</li> <li>• Coprocessor can be easily installed to increase productivity by processing mathematical calculations in less time</li> <li>• Protects the user's existing hardware and software investment. Provides the opportunity for minicomputer-type applications to be done practically on a personal computer</li> </ul>
<b>EXPANSION UNIT</b>		
	<ul style="list-style-type: none"> <li>• Two full-size 8/16-bit slots</li> <li>• Snaps onto the back of the unit and allows the installation of optional hardware</li> </ul>	<ul style="list-style-type: none"> <li>• Enhances the functionality of the system by allowing the easy installation of industry-standard boards</li> </ul>
<b>RANDOM-ACCESS MEMORY</b>		
	<ul style="list-style-type: none"> <li>• 1 Megabyte of RAM (standard)</li> <li>• 32-Bit Memory</li> <li>• 80-ns RAM operates at 20 MHz</li> <li>• 10-Megabyte Memory Expansion Capability</li> <li>• COMPAQ Expanded Memory Manager (CEMM)</li> <li>• Processes up to one million bytes of information at 20 MHz utilizing 32-bit, high-performance, 80-ns RAM chips</li> <li>• Provides the ability to process data at 32 bits per CPU cycle</li> <li>• Processes information up to 25% faster than 16-MHz 80386-based products</li> <li>• Provides RAM expansion of up to 10 megabytes of high-performance, 32-bit, 80-ns RAM without use of the expansion unit</li> <li>• Supports the Lotus®/Intel®/Microsoft® (LIM) Expanded Memory Specification, Version 3.20 (EMS). Enables the user to access memory beyond the MS-DOS limitation of 640 Kbytes</li> </ul>	<ul style="list-style-type: none"> <li>• Optimizes system performance and versatility by providing high-speed memory to handle complex tasks</li> <li>• Increases user productivity by reducing time required to process sophisticated applications</li> <li>• Increases user productivity by processing more information in less time. Increases system versatility by providing high-speed memory to handle complex tasks</li> <li>• Allows the system to grow with the user's needs</li> <li>• Allows fast and efficient manipulation of large amounts of data, and eliminates the need to purchase additional hardware</li> </ul>

# COMPAQ PORTABLE 386 Features/Functions/Benefits

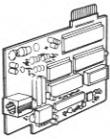
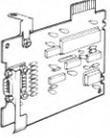
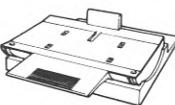
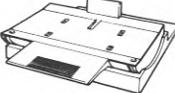
Feature	Function	Benefit	
<b>CLOCK</b>			
	<ul style="list-style-type: none"> <li>• Real-time clock/calendar (battery powered)</li> </ul>	<ul style="list-style-type: none"> <li>• Supplies the current date and time during power-on or system reboot</li> </ul>	<ul style="list-style-type: none"> <li>• Saves the user time by eliminating the need to reset the clock</li> </ul>
<b>MASS STORAGE DEVICES</b>			
	<ul style="list-style-type: none"> <li>• Choice of internal storage devices</li> <li>• Shock-mounted drives</li> <li>• 5¼-inch 1.2-Megabyte Diskette Drive (Standard)</li> <li>• 5¼-inch 360-Kbyte Diskette Drive (Optional)</li> <li>• 40-Megabyte 3½-Inch Fixed Disk Drive</li> <li>• 100-Megabyte 3½-Inch Fixed Disk Drive</li> </ul>	<ul style="list-style-type: none"> <li>• Holds up to two internal storage devices</li> <li>• Protects the drives by absorbing impact and vibration</li> <li>• Reads and writes 1.2-megabyte diskettes; reads 360-Kbyte diskettes</li> <li>• Reads and writes to 360-Kbyte diskettes</li> <li>• Stores more than 20,000 pages of information/average access time of less than 30 milliseconds</li> <li>• Stores more than 50,000 pages of information/average access time of less than 25 milliseconds</li> </ul>	<ul style="list-style-type: none"> <li>• Provides the user with the flexibility to determine the data storage requirements that best meet the needs of specific applications</li> <li>• Enhances system portability by providing rugged and reliable storage devices</li> <li>• Provides compatibility with existing media standards and protects the user's software investment</li> <li>• Maintains compatibility and protects the user's software investment</li> <li>• High-speed, high-performance fixed disk drive provides faster system processing capability. It enhances portability by eliminating the need to carry the equivalent of 34 1.2-megabyte diskettes</li> <li>• High-speed, high-performance fixed disk drive provides faster system processing capability. It enhances portability by eliminating the need to carry the equivalent of 83 1.2-megabyte diskettes</li> </ul>
<b>TAPE BACKUP EXPANSION UNIT</b>			
	<ul style="list-style-type: none"> <li>• 40-Megabyte Fixed Disk Drive Backup (Tape) Expansion Unit</li> </ul>	<ul style="list-style-type: none"> <li>• Stores 40 million characters of data from the fixed disk drive onto a removable tape cassette.</li> <li>• Modular component, it is easily attached and removed</li> </ul>	<ul style="list-style-type: none"> <li>• Minimizes the time required to recover from a loss of data due to situations such as theft or system failure</li> <li>• Enhances portability by allowing the user to leave the tape unit behind when transporting the system. Removable design also allows users to share the device.</li> </ul>
<b>POWER SUPPLY</b>			
	<ul style="list-style-type: none"> <li>• Steady-State: 145 Watts — Peak: 160 Watts</li> <li>• Automatic Line Selecting Feature (110V/220V)</li> </ul>	<ul style="list-style-type: none"> <li>• Distributes sufficient power to the system to support all available configurations</li> <li>• Determines the voltage of incoming power</li> </ul>	<ul style="list-style-type: none"> <li>• Prevents the need to replace or supplement the existing power supply when a user decides to upgrade the system</li> <li>• Provides system flexibility for international travel</li> </ul>

# COMPAQ PORTABLE 386 Features/Functions/Benefits

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Feature	Function	Benefit
<b>KEYBOARD</b>		
 <ul style="list-style-type: none"><li>• COMPAQ Portable Enhanced Keyboard</li><li>• 12 function keys</li><li>• Detachable</li><li>• LED indicators</li></ul>	<ul style="list-style-type: none"><li>• Full-size keys in a layout that includes 12 programmable function keys and a 10-key numeric/cursor keypad</li><li>• Provides 12 keys that can be programmed to perform special functions</li><li>• Allows the free movement of the keyboard</li><li>• Indicates the on/off state of the CAPS LOCK, NUM LOCK, and SCROLL LOCK keys</li></ul>	<ul style="list-style-type: none"><li>• Provides users with the unique features of an Enhanced Keyboard and maintain software compatibility</li><li>• Increases user productivity and adds convenience by saving time</li><li>• Provides comfort to the user and contributes to personal productivity</li><li>• Promotes increased accuracy of data input through the easy recognition of key state</li></ul>
<b>STANDARD INTERFACES</b>		
 <ul style="list-style-type: none"><li>• Parallel</li><li>• Asynchronous communications</li><li>• RGBI Interface</li></ul>	<ul style="list-style-type: none"><li>• Allows the connection of a parallel printer to the system unit</li><li>• Allows the connection of a serial device to the system unit</li><li>• Allows for the connection of an external monitor</li></ul>	<ul style="list-style-type: none"><li>• Eliminates the need to purchase and install additional hardware</li><li>• Eliminates the need to purchase and install additional hardware</li><li>• External color monitor can be connected without the additional investment of a color graphics adapter</li></ul>
<b>PLASMA DISPLAY</b>		
 <ul style="list-style-type: none"><li>• DC plasma technology</li><li>• Dual-mode</li><li>• Adjustable</li></ul>	<ul style="list-style-type: none"><li>• Provides a superior quality flat panel display</li><li>• Supports high-resolution text (640 X 400) and high-resolution graphics (640 X 400, 640 X 200, and 320 X 200)</li><li>• Allows for variable positioning of display</li></ul>	<ul style="list-style-type: none"><li>• Increases readability in any light and at various angles</li><li>• Eliminates the need to purchase additional hardware to support both text and graphics</li><li>• Provides viewing comfort which increases productivity</li></ul>
<b>MONITOR AND VIDEO BOARDS</b>		
 <ul style="list-style-type: none"><li>• COMPAQ Enhanced Color Graphics Board</li><li>• COMPAQ Color Monitor</li></ul>	<ul style="list-style-type: none"><li>• Provides EGA resolution capability</li><li>• Displays text and graphics in a maximum resolution of 640 x 350 and supports 64 colors</li></ul>	<ul style="list-style-type: none"><li>• Provides high-resolution color graphics needed for an increasing number of applications</li><li>• Increases the graphics capabilities of the system</li></ul>

# COMPAQ PORTABLE 386 Features/Functions/Benefits

Feature	Function	Benefit	
<b>PHYSICAL CHARACTERISTICS</b>			
	<ul style="list-style-type: none"> <li>• Dimensions               <ul style="list-style-type: none"> <li>Height 9.8 in.</li> <li>Width 16.0 in.</li> <li>Depth 7.8 in.</li> </ul> </li> <li>• Weight               <ul style="list-style-type: none"> <li>Model 40: 20 lb</li> <li>Model 100: 21 lb</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Provides full-function computing in a small package</li> <li>• Provides full-function personal computing in a lightweight, easy-to-carry package</li> </ul>	<ul style="list-style-type: none"> <li>• Provides true portability</li> <li>• Provides true portability</li> </ul>
<b>CONVENIENCE OPTIONS</b>			
	<ul style="list-style-type: none"> <li>• Internal Modem               <ul style="list-style-type: none"> <li>– Hayes-compatible</li> <li>– 1200-Baud</li> <li>– 2400-Baud</li> <li>– Tone/pulse dialing</li> <li>– Full- or half-duplex</li> <li>– Auto answer/originate</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Provides communications capabilities within the system unit</li> </ul>	<ul style="list-style-type: none"> <li>• Frees the asynchronous communications interface for other serial devices and maintains compatibility with industry-standard communications software</li> </ul>
	<ul style="list-style-type: none"> <li>• Second Asynchronous Communications Interface</li> </ul>	<ul style="list-style-type: none"> <li>• Supplies an additional 9-pin serial port</li> </ul>	<ul style="list-style-type: none"> <li>• Provides additional system configuration flexibility</li> </ul>
	<ul style="list-style-type: none"> <li>• Asynchronous Communications/Parallel Printer Board</li> </ul>	<ul style="list-style-type: none"> <li>• Supplies additional serial and parallel ports</li> </ul>	<ul style="list-style-type: none"> <li>• Provides additional system configuration flexibility</li> </ul>
	<ul style="list-style-type: none"> <li>• Desktop Pedestal</li> </ul>	<ul style="list-style-type: none"> <li>• Provides an adjustable stand for the system unit</li> </ul>	<ul style="list-style-type: none"> <li>• Enhances personal productivity by adjusting to a variety of operating positions</li> </ul>
	<ul style="list-style-type: none"> <li>• Carrying Case               <ul style="list-style-type: none"> <li>– black nylon or leather</li> <li>– shoulder strap</li> <li>– expandable</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Protects the system unit while in transit and expands to accommodate the expansion unit</li> </ul>	<ul style="list-style-type: none"> <li>• Enhances portability by making the system unit easier to carry</li> </ul>
<b>SOFTWARE</b>			
	<ul style="list-style-type: none"> <li>• ADAPT (Advanced Display Attribute Programming Tool)</li> </ul>	<ul style="list-style-type: none"> <li>• Enables the adjustment of highlighted text attributes</li> </ul>	<ul style="list-style-type: none"> <li>• Maximizes readability by providing the capability to personalize the selection and modify display attributes</li> </ul>
	<ul style="list-style-type: none"> <li>• Screen Save</li> </ul>	<ul style="list-style-type: none"> <li>• Causes the screen to go blank when there has not been any recent keyboard activity</li> </ul>	<ul style="list-style-type: none"> <li>• Provides privacy while the system is unattended</li> </ul>
	<ul style="list-style-type: none"> <li>• MS-DOS Version 3, Release 3.2, or Higher</li> </ul>	<ul style="list-style-type: none"> <li>• Provides the operating system that controls the activity of the system</li> </ul>	<ul style="list-style-type: none"> <li>• Ensures compatibility with the installed base of software</li> </ul>
<b>DOCUMENTATION</b>			
	<ul style="list-style-type: none"> <li>• Operations Guide</li> </ul>	<ul style="list-style-type: none"> <li>• Provides the information needed to operate the system</li> </ul>	<ul style="list-style-type: none"> <li>• Provides useful system information to users in an easy-to-read manner</li> </ul>
	<ul style="list-style-type: none"> <li>• Technical Reference Guide</li> </ul>	<ul style="list-style-type: none"> <li>• Provides reference information intended for advanced users and programmers</li> </ul>	<ul style="list-style-type: none"> <li>• Provides the technical information that allows users to maximize system performance</li> </ul>

## Memory Expansion

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The COMPAQ PORTABLE 386 Personal Computer is configured with 1 megabyte of high-performance, 32-bit, 80-ns random-access memory (RAM). There are several memory expansion options available that were designed to take advantage of the 32-bit architecture of the COMPAQ PORTABLE 386. These options allow for a maximum memory configuration of 10 megabytes. The 32-Bit Memory/Modem Interface Board is required for memory expansion. This option connects the modem, or the second asynchronous communications interface board and/or the memory expansion options to the system board.

### The 1-Megabyte Memory Upgrade Kit:

This option provides an additional 1 megabyte of 32-bit RAM to the system, and expands the RAM capacity of the system board to a full 2 megabytes. This option kit includes two memory modules.

### 1- to 2-Megabyte Memory Expansion Board:

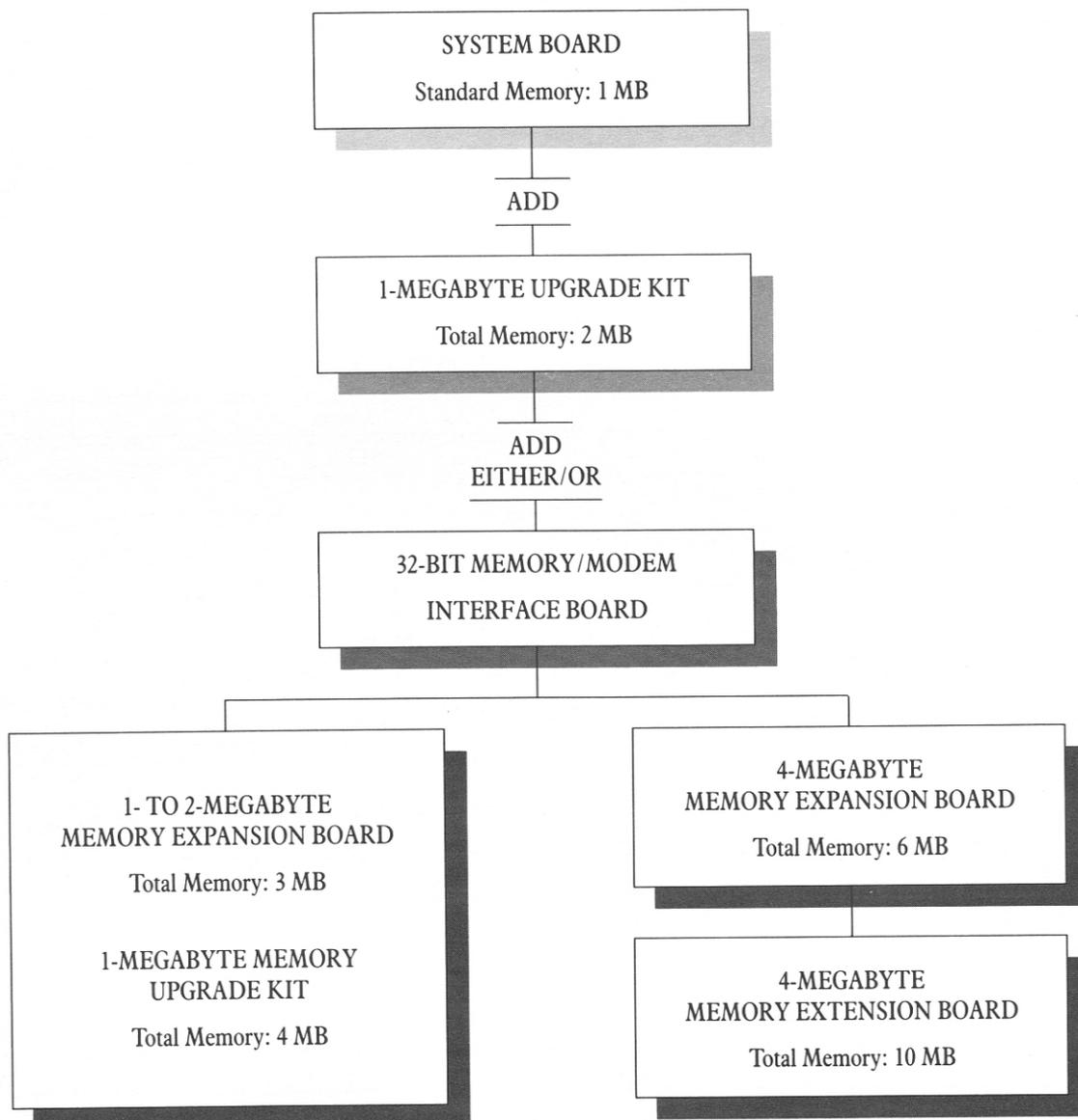
This memory expansion board provides 1 megabyte of standard RAM. This enables the expansion of internal system memory up to 3 megabytes. The system board must be fully loaded (2 megabytes of RAM) for this option to be installed. The 1-Megabyte Memory Upgrade Kit can be installed on the 1- to 2-Megabyte Memory Expansion Board to provide an additional 1 megabyte of RAM. This boosts the system memory capacity up to 4 megabytes without the use of an expansion slot.

### 4-Megabyte Memory Expansion Board:

This option provides 4 megabytes of RAM using 1 megabit X 1 chips. The system board must be fully loaded (2 megabytes of RAM) for this option to be installed. This expands the maximum system RAM up to 6 megabytes of 32-bit system memory. Sockets are provided that allow for the installation of the 4-Megabyte Memory Expansion Board.

### 4-Megabyte Memory Extension Board:

This memory board is installed onto the 4-Megabyte Memory Expansion Board to provide an additional 4 megabytes of RAM to the system. It uses 1 megabit X 1 chips. The installation of this board enables the system memory to expand up to its maximum of 10 megabytes. The 4-Megabyte Memory Expansion Board must be used in conjunction with this option.



# Technical Specifications

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## STORAGE DEVICE PERFORMANCE

DISKETTE DRIVES	1.2-MEGABYTE	360-KBYTE
LED Indicators		
Read/Write 1.2-Megabyte	Green	N/A
Read/Write 360-Kbyte	Orange	Orange
Capacity Per Drive	1.2 megabytes	360 Kbytes
Dimensions		
Height	1.1 in.	1.1 in.
Depth	8.0 in.	8.0 in.
Width	5.8 in.	5.8 in.
Drive Size	5¼ in.	5¼ in.
Drive Rotation (RPM)	360	300
Transfer Rate (BPS)		
1.2-megabyte	500 Kbytes	
360-Kbyte	300 Kbytes	250 Kbytes
Bytes Per Sector	512	512
Sectors Per Track		
1.2-Megabyte	15	
360-Kbyte	9	9
Tracks Per Inch		
1.2-megabyte	96	
360-Kbyte	48	48
Tracks Per Side	80/40	40
Access Times (Excluding Settling)		
Track to Track (ms)	3	6
Average (ms)	80	80
Settling Time (ms)	15	15
Latency Average (ms)	84	100
Cylinders		
1.2-megabyte	80	
360-Kbyte	40	40
Read/Write Heads	2	2

## STORAGE DEVICE PERFORMANCE

<b>FIXED DISK DRIVES</b>	<b>40-MEGABYTE</b>	<b>100-MEGABYTE</b>
Standard Configuration	Model 40	Model 100
Option Kit	No	Yes
Capacity Per Drive Formatted	40 Megabytes	100 Megabytes
Dimensions		
Height	1.5 in. ( 3.8 cm)	1.63 in. (4.1 cm)
Depth	5.8 in. (14.6 cm)	5.8 in. (14.6 cm)
Width	4.0 in. (10.2 cm)	4.0 in. (10.2 cm)
Drives Supported	1	1
Drive Type	17	45
Transfer Rate	8 Megabits/sec	10 Megabits/sec
Bytes Per Sector	512	512
Rotational Speed (RPM)	3600	3600
Access Times (Including Settling)		
Track to Track (ms)	8 ms	8 ms
Average (ms)	<30 ms	<25 ms
Maximum (ms)	70 ms	50 ms
Physical Sectors per Track	26	33
Physical Cylinders	805	748
Physical Read/Write Heads	4	8
Logical Sectors per Track	17	33
Logically Addressable Cylinders	980	748
Logically Addressable Heads	5	8
Backup Medium	Diskettes 40-Megabyte Fixed Disk Drive Backup (Tape) Expansion Unit	Diskettes 40-Megabyte Fixed Disk Drive Backup (Tape) Expansion Unit

# Technical Specifications

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## STORAGE DEVICE PERFORMANCE

### 40-MEGABYTE FIXED DISK DRIVE BACKUP EXPANSION UNIT

Dimensions	
Height	6.0 in. (15.2 cm)
Depth	2.4 in. ( 6.1 cm)
Width	14.5 in. (36.8 cm)
Approximate Operating Time (In Minutes)	
Backup and Verify	
Formatted Cartridge	36
Unformatted Cartridge	110
Restore	18
Format Blank Cartridge	74
Maximum Formatted Capacities	
Per Tape	40 Megabytes
Per Track	2 Megabytes
Per Data Block	16,384 Bytes
Per Sector	1024 Bytes
Mechanical Measurements	
Tape Width	.25 in.
Tape Length	205 ft
Tape Speed	
Read/Write (Dual Directions)	50 IPS
Rewind/Fast Forward	70 IPS
Tape Format	
Read/Write	Streaming
Track Pattern	Serpentine
Number of Tracks	20
Number of Blocks Per Track	124
Number of Data Sectors Per Block	16
Number ECC Sector Per Block	2
Recording Density/Inch	10000 Bits
Flux Reversals/Inch	10000
Track Density/Inch	83 Tracks
Data Encoding Method	MFM
Data Transfer Rate (BPS) Read/Write	500 Kb Read 250 Kbs
Error Detection/Correction	CRC/ECC
Tape Cartridges	
Read/Write	3M® DC2000
Read	3M DC1000

**SYSTEM UNIT**

	U.S.	International
<b>Dimensions:</b>		
Height	9.8 in.	24.8 cm
Depth	7.8 in.	19.8 cm
Width	16.0 in.	40.6 cm
<b>Weight:</b>		
Model 40	20 lb	9.1 kg
Model 100	21 lb	9.6 kg
<b>Power Supply:</b>		
Operating Voltage	120 VAC, 60Hz	230 VAC, 50Hz
Steady-State Power	145 Watts	145 Watts
Peak Power	160 Watts	160 Watts
Operating Current	3 AMP	2 AMP
<b>Temperature Range:</b>		
Operating	50° to 104° F	10° to 40° C
Nonoperating	14° to 122° F	-10° to 50° C
Shipping	-22° to 140° F	-30° to 60° C
<b>Relative Humidity: (non-condensing)</b>		
Operating	20% to 80%	20% to 80%
Nonoperating	5% to 90%	Not < than 5%
<b>Maximum Unpressurized Altitude:</b>		
Operating	10,000 ft	3,000 m
Nonoperating	30,000 ft	9,100 m
<b>KEYBOARD</b>		
<b>Dimensions</b>		
Height	1.2 in.	3.0 cm
Depth	7.1 in.	18.0 cm
Width	15.8 in.	40.1 cm
Cable Extended Length	30.0 in.	76.2 cm
Coil Diameter	0.6 in.	1.5 cm
Interface	Industry-standard 5-pin circular DIN-type connector	

## Physical Measurements

### PLASMA DISPLAY

	U.S.	International
Dimensions:		
Width (Viewable Area)	8.3 in.	21.1 cm
Height (Viewable Area)	5.2 in.	13.2 cm
Diagonal Size	10 in.	25.4 cm
Type	DC Plasma	DC Plasma
Mounting	Internal	Internal
Character Display	80/40 X 25	80/40 X 25
Brightness	Adjustable	Adjustable
Resolution	Text—640 X 400 Graphics—640 X 400 640 X 200 320 X 200	Text—640 X 400 Graphics—640 X 400 640 X 200 320 X 200

### COMPAQ 1200-BAUD INTERNAL MODEM/COMPAQ 2400-BAUD INTERNAL MODEM

Dimensions:		
Width	5.6 in.	International Modem Specifications Available Locally
Height	3 in. (exclusive of connector)	
Depth	.5 in.	

Modem Type/Transmission Rate:

Modem Type Transmission Rate	1200-Baud Internal Modem	2400-Baud Internal Modem
300	Bell 103A	Bell 103A CCITT V.21
1200	Bell 212A CCITT V.22	Bell 212A CCITT V.22 bis
2400	—	Bell 212A CCITT V.22 bis

International  
Modem Specifications  
Available Locally

### EXPANSION UNIT

Dimensions:		
Height	6.0 in.	15.2 cm
Depth	2.4 in.	6.1 cm
Width	14.5 in.	36.8 cm
Slots:	Two, 8-MHz 8/16-bit slots (fully skirted 8-bit boards not compatible)	Two, 8-MHz -bit slots (fully skirted 8-bit boards not compatible)

**Q:** What are the benefits of 32-bit architecture?

**A:** The 32-bit architecture and instruction set offers users increased performance and functionality. The larger data width provides a 32-bit data path that enables more information to be moved faster. This eliminates potential system bottlenecks, and allows for the true potential of the processing power of the Intel 80386 microprocessor to be fully maximized. The 20-MHz processor speed, combined with the benefits of the wider and faster 32-bit data path, provides performance in a portable system that rivals that previously available only in minicomputer systems. The 32-bit architecture provides a platform for future application development. Increasing numbers of applications are being developed to take advantage of the advanced functions of the 80386 microprocessor.

**Q:** Will the 20-MHz processing speed cause any incompatibilities? How did Compaq maintain compatibility?

**A:** Compaq has established a solid reputation for providing personal computer systems that maintain full-compatibility with the industry standard. Compatibility is maintained with software applications by providing the user with a method for selecting speed modes to eliminate incompatibilities with speed-sensitive software. The expansion bus of the COMPAQ PORTABLE 386 runs at 8 MHz, while the processor runs at 20 MHz. This allows the system to maintain compatibility with popular hardware created for 8-MHz 80286-based systems. Compaq has maintained this high level of compatibility to protect the user's existing hardware and software investment.

**Q:** How much faster is the 20-MHz 80386 microprocessor than the 16-MHz 80386 microprocessor?

**A:** The 80386 microprocessor of the COMPAQ PORTABLE 386 operates at a processing speed of 20 MHz. It processes information up to 25% faster than 16-MHz 80386-based products.

**Q:** How much faster is the 20-MHz 80386 microprocessor than the 8-MHz 80286 microprocessor?

**A:** The 80386 microprocessor of the COMPAQ PORTABLE 386 operates at a processing speed of 20 MHz. It processes information up to 3.5 times faster than the 8-MHz 80286 microprocessor.

**Q:** Which keyboard is available with this product?

**A:** The detachable, COMPAQ Portable Enhanced Keyboard was chosen to provide full-function portable computing capability and maximize system productivity. This keyboard offers full-size keys in a layout that includes 12 programmable function keys. The familiar layout and full-size keys provide users with the unique features of the COMPAQ Enhanced Keyboard while maintaining full software compatibility and system portability.

**Q:** What is the COMPAQ Expanded Memory Manager (CEMM)?

**A:** COMPAQ Expanded Memory Manager is the software driver that allows memory above the traditional 640 Kbytes limitation of the MS-DOS environment to become accessible to user applications using the Lotus/Intel/Microsoft (LIM) specification, Version 3.20.

**Q:** Can I use a coprocessor in the COMPAQ PORTABLE 386?

**A:** Yes, an 80387 coprocessor socket is standard in the COMPAQ PORTABLE 386 to allow for the installation of the new 20-MHz Intel 80387 Coprocessor.

**Q:** What is the product warranty for the COMPAQ PORTABLE 386?

**A:** The COMPAQ PORTABLE 386 has a Full One-Year Limited Warranty from the date of purchase. The warranty for COMPAQ PORTABLE 386 options is the greater of 90 days, or the time remaining on the system warranty.

**Q:** Is there a fixed disk drive backup option provided for the COMPAQ PORTABLE 386?

**A:** Yes, the 40-Megabyte Fixed Disk Drive Backup (Tape) Expansion Unit is available as an option. This storage expansion unit attaches to a connector on the rear of the system. It can also be used with the COMPAQ PORTABLE III™ Personal Computer.

**Q:** How much memory can be installed in the system?

**A:** The maximum RAM capacity of the COMPAQ PORTABLE 386 is 10 megabytes without the use of any expansion slots. The system is configured with 1 megabyte of standard RAM. There are several options available which take advantage of the advanced 32-bit architecture to expand internal system memory to a maximum of 10 megabytes.

## Questions and Answers

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**Q:** What modem options are available from Compaq?

**A:** The COMPAQ PORTABLE 386 has two modem options available that provide communications capability within the system unit. The COMPAQ 1200-Baud Internal Modem, and the COMPAQ 2400-Baud Internal Modem are offered as options. These modems provide tone/pulse dialing, full-/half-duplex and auto answer/originate capabilities. They are Hayes-compatible. These options free the standard asynchronous communications interface for other serial devices, and maintain compatibility with industry-standard communications software.

**Q:** What version of MS-DOS is required for supporting the 100-Megabyte Fixed Disk Drive?

**A:** MS-DOS Version 3, Release 3.2 or higher.

**Q:** When I install the Second Asynchronous Communications Interface Board, can I have a modem too?

**A:** The Second Asynchronous Communications Interface Board and the COMPAQ Internal Modems were designed to be installed in the same location in the system unit. Therefore, the COMPAQ Internal Modem and the Second Asynchronous Communications Interface Board cannot be installed at the same time.

