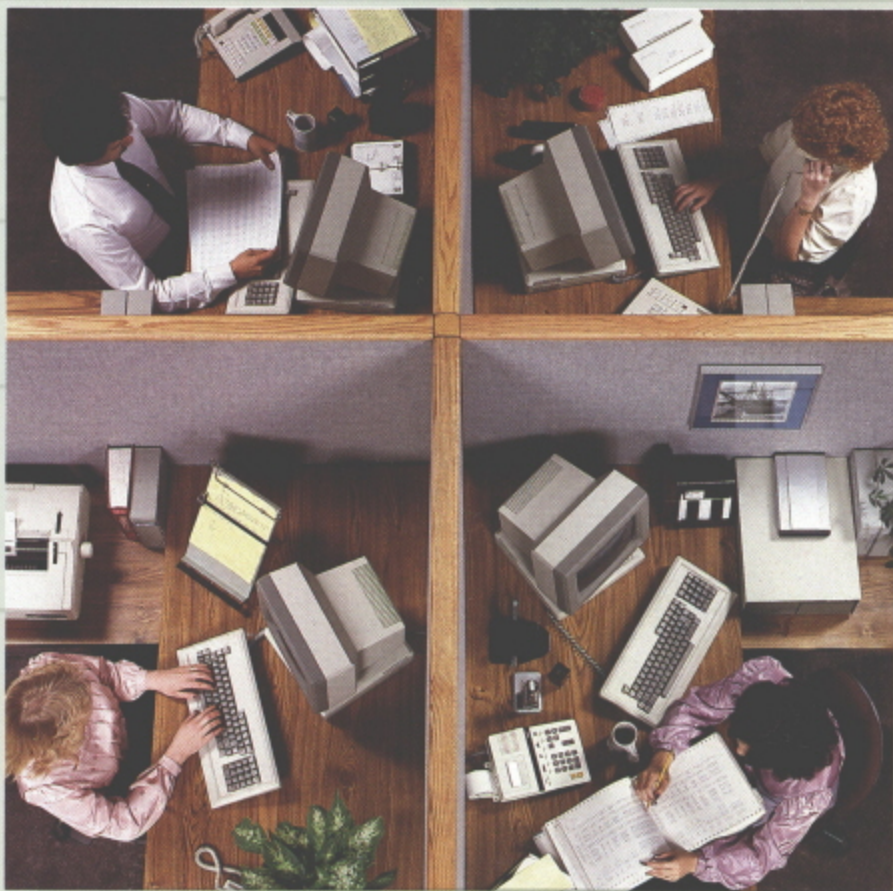


P E R F O R M A N C E

By Design

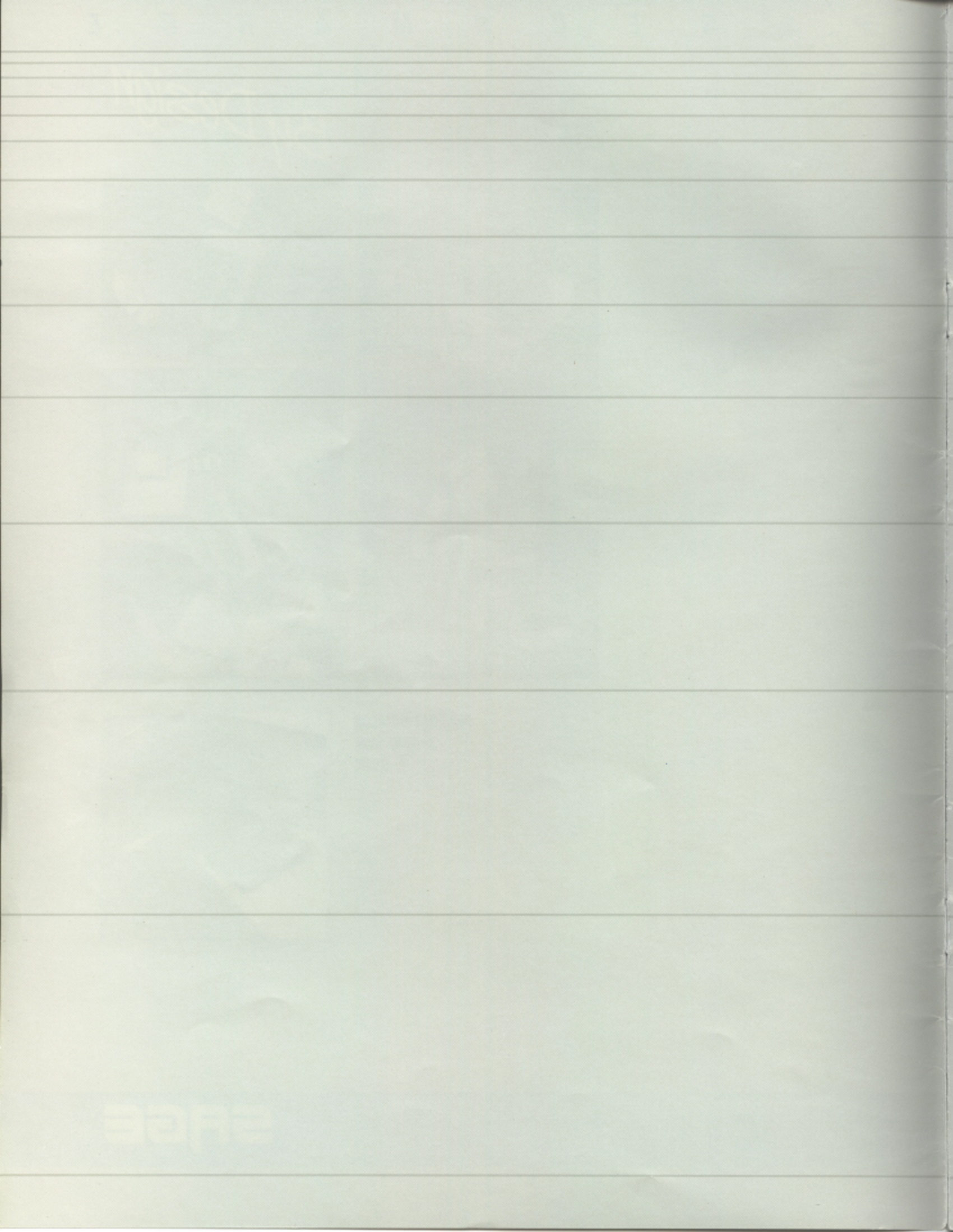


**PRODUCT CATALOG**  
**SPRING 1984**  
**\$3.00**



**SAGE**  
COMPUTER







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# An Open Company

**"... a good candidate for the best available computer based on the 68000 chip."**

— *BYTE Magazine*, January 1984

## A HARDWARE RENAISSANCE

Sage Computer was founded in 1981 in order to build the highest performance microcomputer possible. Why did we do it? Because we saw an opportunity to design and build advanced microcomputer systems that would offer more performance per dollar than any other computer available.

While other manufacturers were just beginning to integrate 16-bit architecture into their systems, Sage was beginning a renaissance. It was a renaissance of returning microcomputers to leading edge technology, instead of simply following the pack of compatibles. Using the 32-bit Motorola 68000 microprocessor and a highly-integrated board concept, Sage was able to offer a superbly designed, high-speed environment with no electronic red tape to slow things down. The result was the best set of benchmarks in the industry.

Now, only three years later, people all over the world are recognizing our computers as the fastest, highest performance microcomputers available.



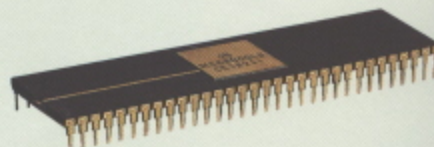
## RIGHT FROM THE BEGINNING

In 1978, Motorola introduced their 68000 microprocessor. It was a chip with design and performance advantages that sparked the interest of computer professionals everywhere. Sage founders Rod Coleman, Bill Bonham and Bob Needham were among the most keen observers to realize what the 68000 could accomplish. To their surprise, International Business Machines (IBM) introduced its first personal computer, based not on the 68000, but rather the Intel 8088 processor. Fully aware that the 68000 chip had greater potential for systems design, Coleman, Bonham and Needham formed Sage Computer for the purpose of building a better microcomputer.

The first Sage microcomputer system was designed as a high performance workstation for engineering, scientific, and software development work. That proved to be a wise direction, since those who put intense demands on their computers could truly appreciate the performance advantage of Sage machines.

**"The first thing to say about the Sage is that it is very quick indeed. The Sage IV is an extremely fast, responsive microcomputer. One of the most elegantly designed microcomputers both inside and outside, it should have a wide appeal. It offers excellent value for the money and a massive upgrade path."**

— *WHICH COMPUTER Magazine*, November 1983





## AN OPEN SYSTEM FOR A SOFTWARE RENAISSANCE

In the very near future every computer user will come to appreciate the performance advantages made possible by machines such as the Sage II and Sage IV. But for now, we are concentrating on those who can put them to use today, solving today's problems, like programmers who have already made the Sage products instant hits. To make it as advantageous as possible for those people to flourish under the Sage umbrella, we're following a strategy that was made famous in the late '70's by Apple Computer. Their success in the 8-bit world was due to an "open system" approach to both the hardware and software. Sage allows every user to obtain and use detailed source programs and details about Sage equipment to aid them in their 16/32-bit designs nurturing a "grass roots" philosophy of company support.

Just as the high performance multi-user capability of Sage microcomputers is the key to the future, Sage's "open systems" policy is an investment in securing that future.

Software innovation is an important element in the Sage arsenal. We offer substantial dividends by supporting the major software environments favored by software developers. Operating systems like p-System, CP/M-68K, Idris, PDOS, BOS, Mirage, HyperFORTH-Plus and Tripos, together with languages such as Pascal, FORTRAN, BASIC, C, Modula-2, APL, LISP, FORTH and 68000 Assembly provide unparalleled flexibility and resource.

***"I think all the software is exciting. I think a lot of it will be in the new computers based on the Motorola 68000."***

— John Eckhouse, Columnist—  
San Francisco Chronicle Bay Area  
Computer Currents, January 1984

## THE FUTURE IS GOING OUR WAY

Today computer systems based on the 68000 microprocessor dominate the non-standard, non-IBM marketplace. Industry observers agree that trend will only increase in the future. Sage believes these machines are key to providing significantly better systems to explore and penetrate new boundaries of performance and capability.

Proof of this belief is the fact that industry leader Apple Computer has introduced two innovative products based on the 68000 over the past twelve months. Though, both of these systems address the lower end of the marketplace, they prove the value of the 68000 and what it can do when asked. Apple and Sage are not alone. More and more attention is being focused on 68000 based systems, including a look from IBM with at least one specialized test machine. The demand for high performance is increasing and Sage is well positioned for the growth that will come from those demands.



But the microprocessor chip isn't everything. Total system design is just as important. That's why Sage is so far ahead. We've designed our computers for speed, speed, and more speed. By utilizing the most direct connection philosophy found only in some of the world's most powerful supercomputers, we've created a microcomputer that performs at two million instructions per second (2 MIPS). That's a measure of speed normally applied only to expensive minicomputers and massive mainframes.

***"A 16-bit computer that defines high performance"***

— Popular Computing, August 10, 1983





# Family of Products

"... our sorting program ran ten times as fast on the Sage as it used to on the Apple II."

— *Journal of Pascal and ADA*, August 1983

Computer industry benchmarks are like the Miles Per Gallon figures on automobiles. They provide a good comparison but are not always practical. It's hard to find a benchmark that is accurate and meaningful. Some work well on one computer and not another. Naturally, manufacturers want you to see only those which favor their product.

So when *BYTE* magazine did an independent survey using an accepted and well-known Prime Number benchmark program, most computer companies didn't have much to say. We did! The Sage II and Sage IV ran the test faster than any other microsystem, and only some high-priced minis could compete.



## Eratosthenes Sieve Prime Number Benchmark

Run time in Seconds

Machine (Chip)	p-Code Pascal	Native Pascal	C	Assembly
<b>SAGE</b> (68000)	<b>39.4</b>	<b>4.1</b>	<b>3.2</b>	<b>1.1</b>
IBM PC (8088)	147.0	19.4	22.1	4.0
TRS-80 MOD II (Z-80)	274.0	n/a	n/a	n/a
Apple II (6502)	516.0	n/a	n/a	n/a
Wicat 150 (68000)	n/a	6.5	4.7	n/a
Charles River (68000)	n/a	n/a	6.3	n/a
PDP-11/60	n/a	4.5	n/a	n/a
VAX-11/750	n/a	n/a	3.1	n/a

Source: *BYTE*, Sept. 81, Jan. 82.



But you don't need a stopwatch, an oscilloscope, or even a *BYTE* benchmark to find out about Sage's performance. Just turn one on! We can bootstrap, load a program and begin processing while most of the more popular machines are still warming up their PROMs.

The numbers say we can load a 20K program in about a second. And we have lightning fast transfer rates that allow our floppies to perform like hard disks. But again, those are just numbers. What it really means is that you'll no longer find yourself waiting on a computer. Whether it is program compiles or general ledger journal postings, Sages run faster. Across the board, Sage can run 4 laps of almost any task while an IBM PC struggles to complete just one. Compared to a standard Apple, the ratio is an astonishing 15 to 1!

Even among our competitors utilizing the 68000 microprocessor, the Sage stands alone. For example, a Sage has 4 to 6 times the throughput of an Apple Lisa.

As an individual workstation, the Sage microcomputer is virtually unmatched, but incredibly, this system also has unique multi-user capabilities. The result is the best price/performance ratio in the industry with the economy of up to six users sharing the 68000's power.



Unlike other multi-user designs, Sage can accommodate different operating systems simultaneously or combine users on a single terminal to achieve concurrent multi-tasking. A powerful and flexible multi-user BIOS allows the operator to design custom configurations with total control over Winchester partitioning, access/sharing, time slice, device setup, operating system, drive formats, printer output, etc. Best of all, the BIOS achieves multi-user with little impact on the Sage's overall performance. In fact, due to design economy, some tasks run faster under multi-user than they do standing alone!

While Sage remains relatively unknown to the general public, those who depend on performance for a living were quick to discover us. Top programming houses such as **Timberline, Digital Research, SofTech Microsystems** and many others have made Sage their Number One choice.

**State of the Art**, for instance, produces the top-selling line of integrated accounting software for IBM and Apple, but the actual programs were written on a Sage. As a result, they run faster and more efficiently on our computers.

**Western Software Development** also chose Sage to produce their high performance statistical package, "Statpak". It was written in Modula-2, one of the newest languages. Only Sage offered the flexibility and utility of supporting 9 different operating systems and 23 languages to meet their needs.

**Honeywell**, the computer giant, used Sage systems to automate a laser-monitored inventory and manufacturing system at their plant in Denver. Their reason was totally practical: mainframe capability at micro pricing.

Here are a few others, of the many, who have come to that same conclusion:

NASA  
Stanford University  
Quaker Oats  
Chase Manhattan Bank  
U.S. Navy  
Westland Helicopter  
Market Decisions Corp.  
Bechtel  
Caterpillar Tractor  
Skyworks/Skycam  
Seimens  
Cray Research  
Texas Instruments  
INMOS  
SofTech Microsystems  
Digital Research  
Hughes Tool  
Union Carbide  
Allergan Pharmaceuticals

Our computers are not for everyone. But once you've discovered the advantage of leading edge technology, unparalleled performance and sensible pricing, we think you'll agree that finding Sage was worth the search.





**"The Sage II is an excellent system in every way"**

— *InfoWorld*, June 20, 1983

The Sage II may well be the most computer an average user will ever need. As a stand alone workstation, it gives you big system performance in a small package. With a footprint equivalent to an office in-basket, the Sage II offers up to 1.3 Megabytes of diskette storage and 512K of RAM.

Many of the standard features on the Sage II are optional on other machines. There's a parallel printer port, a modem port, communications software, a screen-oriented program editor, a word processor, RAMDISK, and a complete debugging tool.

If that isn't enough, the Sage II is the only low-cost multi-user, multi-tasking system on the market. It allows two separate terminals to be connected, but a more unique mode is to install both users on a single terminal resulting in concurrent capabilities. You can let a compile run in the background while you use the word processor in the foreground.

Best of all, this speed and power are totally flexible. The versatile Sage4Util software allows complete control over configurations of terminals, printers, ports, drive formats and more. At the push of a button the floppy drives, for instance, can emulate a 40-track IBM format, or an 80-track, or virtually any other popular setup.

Quite simply, the Sage II is an object lesson in Performance by Design. Starting at just \$3200, it's also a lesson worth learning.



Sage II microcomputer shipments contain the following standard equipment:

- p-System version IV.13
- Screen-oriented Editor
- p-System Utilities
- Getting Started, Word/7 Manual
- p-System Operating System Manual
- Sage Multi-User System
- WORD/7 Word processor
- Teletalker communications
- 90 day limited warranty
- 5' terminal cable
- 256 Kbytes of parity RAM
- IEEE-488 interface
- Two RS-232C serial ports
- Centronics printer port
- Real-time clock and scheduler.



DESCRIPTION	PART NO.	PRICE
Sage II with one 640K floppy drive	SC0082	\$3,200
Sage II with two 640K floppy drives	SC0083	\$3,900
<b>RAM EXPANSION</b>		
Sage II Expansion to 512 Kbytes of parity RAM	RA0011	\$ 500

NOTE: 512K is required to utilize either the Sage Multi-User system or the Idris Operating System.



**"The Sage IV may well be the best 68000-chip computer on the market."**

— Jerry Pournelle, *BYTE Magazine*, January, 1984

More of a good thing! That's what the Sage IV offers. Utilizing the identical CPU-board design of the Sage II, the Sage IV adds a Winchester controller board featuring additional RAM and four extra ports; all designed to the same philosophy of clean, efficient circuitry aimed at providing maximum throughput and reliability.

The result is raw power. There's hard disk storage up to 40 megabytes, RAM options extending to one full megabyte, and a powerful multi-user BIOS. As many as six users can share the wealth of this high capacity system with virtually no loss of performance. You'll have a choice of pre-set multi-user configurations or, if you prefer, all the tools necessary to design your own custom setup.

And again, Sage sets the standard for cost effectiveness. Whether it's six clerks working on accounting chores or a developer accessing this mainframe power for his desktop, the price/performance ratio of the Sage IV is the best in the business.

Speed and flexibility are the hallmarks of all Sage Computer systems. The Sage IV extends those qualities into the arena of hard disk storage, expanded memories and multi-user economy.



Sage IV microcomputer shipments contain the following standard equipment:

- p-System version IV.13
- Screen-oriented Editor
- p-System Utilities
- Getting Started, Word/7 Manual
- p-System Operating System Manual
- Sage Multi-User System
- WORD/7 Word processor
- Teletalker communications
- 90 day limited warranty
- 5' terminal cable
- 256 Kbytes of parity RAM
- IEEE-488 interface
- Six RS-232C serial ports
- Centronics printer port
- Real-time clock and scheduler.

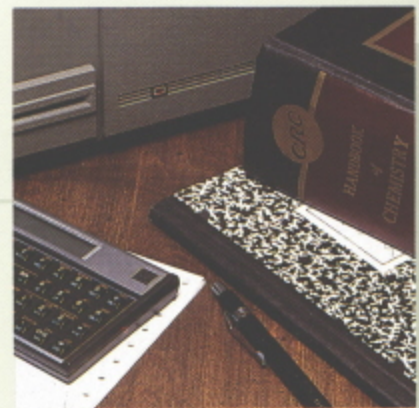


DESCRIPTION	PART NO.	PRICE
Sage IV with one 640K floppy drive and one fixed 12 megabyte Winchester disk drive	SC0084	\$ 7,300
Sage IV with one 640K floppy drive and one fixed 18 megabyte Winchester disk drive	SC0085	\$ 7,900
Sage IV with one 640K floppy drive and one fixed 40 megabyte Winchester disk drive	SC0086	\$10,200
Sage IV with two 640K floppy drives and one fixed 12 megabyte Winchester disk drive	SC0087	\$ 8,000
Sage IV with two 640K floppy drives and one fixed 18 megabyte Winchester disk drive	SC0088	\$ 8,600
Sage IV with two 640K floppy drives and one fixed 40 megabyte Winchester disk drive	SC0089	\$10,900
RAM EXPANSION		
Sage IV Expansion to 512 Kbytes of parity RAM	RA0012	\$ 500
Sage IV Expansion to 1 megabyte of parity RAM	RA0013	\$ 1,500

NOTE: A minimum of 512K is required to utilize either the Sage Multi-User system or the Idris Operating System.



	SAGE II	SAGE IV
<b>PROCESSOR</b>	<ul style="list-style-type: none"> <li>• 8 Mhz MC68000 microprocessor</li> <li>• 2 million operations per second</li> <li>• 32-bit registers</li> </ul>	<ul style="list-style-type: none"> <li>• 8 Mhz MC68000 microprocessor</li> <li>• 2 million operations per second</li> <li>• 32-bit registers</li> </ul>
<b>BUS</b>	<ul style="list-style-type: none"> <li>• Sage bus</li> <li>• Autovector interrupts</li> <li>• All I/O is optionally polled</li> <li>• Asynchronous bus operation</li> <li>• 16-bit data bus</li> <li>• 24-bit address bus (will address 16 Mb)</li> </ul>	<ul style="list-style-type: none"> <li>• Sage bus</li> <li>• Autovector interrupts</li> <li>• All I/O is optionally polled</li> <li>• Asynchronous bus operation</li> <li>• 16-bit data bus</li> <li>• 24-bit address bus (will address 16 Mb)</li> </ul>
<b>FLOPPY STORAGE</b>	<ul style="list-style-type: none"> <li>• One or two 640K disks (5¼-inch)</li> <li>• 20K per second transfer rate</li> </ul>	<ul style="list-style-type: none"> <li>• One or two 640K disks (5¼-inch)</li> <li>• 20K per second transfer rate</li> </ul>
<b>WINCHESTER HARD DISK STORAGE</b>		<ul style="list-style-type: none"> <li>• One drive (12Mb, 18Mb or 40Mb)</li> <li>• Full-track buffering</li> <li>• 160 to 400K per second transfer rate</li> </ul>
<b>SERIAL PORTS</b>	<ul style="list-style-type: none"> <li>• Two RS-232C</li> <li>• 300 to 19.2K baud</li> <li>• Can be configured for terminals, printers or modems</li> </ul>	<ul style="list-style-type: none"> <li>• Six RS-232C</li> <li>• 300 to 19.2K baud</li> <li>• Can be configured for terminals, printers or modems</li> </ul>
<b>PARALLEL PORT</b>	<ul style="list-style-type: none"> <li>• Centronics-compatible</li> </ul>	<ul style="list-style-type: none"> <li>• Centronics-compatible</li> </ul>
<b>MULTI-USER</b>	<ul style="list-style-type: none"> <li>• Up to 2 users (512K RAM required)</li> <li>• Will run different operating systems concurrently</li> <li>• True concurrent processes</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 6 users (1 Megabyte minimum RAM required)</li> <li>• Will run different operating systems concurrently</li> <li>• True concurrent processes</li> </ul>





	SAGE II	SAGE IV
<b>INCLUDED OPERATING SYSTEM</b>	<ul style="list-style-type: none"> <li>• p-System</li> <li>• Screen-oriented editor</li> <li>• Filer</li> <li>• Utilities</li> <li>• Multi-User BIOS</li> <li>• RAMDISK</li> </ul>	<ul style="list-style-type: none"> <li>• p-System</li> <li>• Screen-oriented editor</li> <li>• Filer</li> <li>• Utilities</li> <li>• Multi-User BIOS</li> <li>• RAMDISK</li> </ul>
<b>INCLUDED APPLICATIONS</b>	<ul style="list-style-type: none"> <li>• WORD/7 word processor</li> <li>• TeleTalker communications</li> </ul>	<ul style="list-style-type: none"> <li>• WORD/7 word processor</li> <li>• TeleTalker communications</li> </ul>
<b>OPTIONAL OPERATING SYSTEMS</b>	<ul style="list-style-type: none"> <li>• CP/M-68K</li> <li>• Idris</li> <li>• PDOS</li> <li>• HyperFORTH Plus</li> <li>• BOS</li> <li>• TRIPOS</li> <li>• Mirage</li> </ul>	<ul style="list-style-type: none"> <li>• CP/M-68K</li> <li>• Idris</li> <li>• PDOS</li> <li>• HyperFORTH Plus</li> <li>• BOS</li> <li>• TRIPOS</li> <li>• Mirage</li> </ul>
<b>OPTIONAL LANGUAGES</b>	<ul style="list-style-type: none"> <li>• Pascal</li> <li>• Modula-2</li> <li>• C</li> <li>• BASIC</li> <li>• FORTRAN</li> <li>• APL</li> <li>• LISP</li> <li>• Forth</li> <li>• 68000 Assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Pascal</li> <li>• Modula-2</li> <li>• C</li> <li>• BASIC</li> <li>• FORTRAN</li> <li>• APL</li> <li>• LISP</li> <li>• Forth</li> <li>• 68000 Assembly</li> </ul>
<b>DOCUMENTATION</b>	<ul style="list-style-type: none"> <li>• Getting Started</li> <li>• WORD/7</li> <li>• TeleTalker</li> <li>• p-System Operating System</li> </ul>	<ul style="list-style-type: none"> <li>• Getting Started</li> <li>• WORD/7</li> <li>• TeleTalker</li> <li>• p-System Operating System</li> </ul>
<b>WARRANTY</b>	<ul style="list-style-type: none"> <li>• Limited 90-day warranty</li> <li>• One, two or three-year extensions available</li> </ul>	<ul style="list-style-type: none"> <li>• Limited 90-day warranty</li> <li>• One, two or three-year extensions available</li> </ul>
<b>POWER SUPPLY</b>	<ul style="list-style-type: none"> <li>• 65-watt switching</li> </ul>	<ul style="list-style-type: none"> <li>• 90-watt switching</li> </ul>
<b>PHYSICAL</b>	<ul style="list-style-type: none"> <li>• Height— 3.5 inches</li> <li>• Width— 12.5 inches</li> <li>• Depth— 16.8 inches</li> <li>• Weight— 16.0 pounds</li> </ul>	<ul style="list-style-type: none"> <li>• Height— 6.5 inches</li> <li>• Width— 12.5 inches</li> <li>• Depth— 16.8 inches</li> <li>• Weight— 20.0 pounds</li> </ul>
<b>ENVIRONMENTAL REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>• 10 to 35°C in ambient air</li> <li>• 20% to 80% humidity, noncondensing</li> <li>• RFI/EMI complies with FCC rules Part 15J, Class A</li> <li>• Designed to meet UL 478 and CSA 154, 143</li> <li>• 90 to 132 VAC or 180 to 264 VAC, 40 to 400Hz</li> </ul>	<ul style="list-style-type: none"> <li>• 10 to 35°C in ambient air</li> <li>• 20% to 80% humidity, noncondensing</li> <li>• RFI/EMI complies with FCC rules Part 15J, Class A</li> <li>• Designed to meet UL 478 and CSA 154, 143</li> <li>• 90 to 132 VAC or 180 to 264 VAC, 40 to 400Hz</li> </ul>
<b>MISCELLANEOUS</b>	<ul style="list-style-type: none"> <li>• IEEE-488 Interface</li> <li>• Real time clock</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE-488 Interface</li> <li>• Real time clock</li> </ul>



**"... the Sage II's speed, and ability to interface with a large number of external devices makes it ideal for research purposes..."**

— *Journal of Pascal and ADA*, August 1983

The flexibility of all Sage Computer systems will allow a broad and varied selection of peripherals. Configuration utilities provided will match your microcomputer to dozens of different terminals, printers, modems, etc.

The peripherals listed below are marketed and supported directly by Sage Computer and require little or no setup to become part of your powerful microcomputer system.

**QUME QVT-102**

Qume's QVT-102 is a low cost, high performance terminal that meets all the needs of a versatile data processing workstation. It has all the features of the Hazeltine 1500, Lear Siegler ADM3A/5 and TeleVideo 910, and emulates any one of them with a keystroke. Plus, many features found in higher price terminals are standard on the QVT-102, including block and conversational modes, local editing, a user-defeatable 25th status line, a menu set-up mode and 12 preprogrammed functions.



The QVT-102 takes up minimal workspace and is designed to please the operator. Its non-glare green or amber screen minimizes eye strain with a big 9x12 character cell. The screen tilts and swivels for perfect viewing, and the low-profile keyboard is detached to allow placement for ideal reach and hand-rest position. Color-matched to the Sage microcomputer, the QUME QVT-102 is a sophisticated, but inexpensive terminal.

**THE QUME QVT-211 GX**

Now you can get all of the features and ergonomic design of the high performance QVT-102 — plus full graphics capabilities. The QVT-211gx features a 14-inch green display as standard (amber optional), with screen resolution of 644x288. The completely independent graphics memory can be displayed simultaneously with the alph-numeric memory.

The QVT-211gx is compatible with the Tektronix 4010 and 4014 command sets, which makes it ideal as a preview terminal for CAD/CAM applications. Also in its native graphics mode, microprocessor-based vector generation greatly simplifies programming. Specify endpoints and the QVT-211gx creates the line. Arcs, circles, boxes, and fill can be quickly generated with single commands. These powerful features bring a full spectrum of business graphics within the reach of all Sage users.



**QUME PRINTERS**

The Qume Sprint 11/40 Plus offers unsurpassed daisy wheel print quality and durability. Operating at a steady 40 cps, the Sprint features a reliability rating of 5500 hours before failure. That's equivalent to almost three years of continual use, eight hours a day, five days a week without a single repair.

In addition the 11/40 features user-changeable interfaces to switch between the Sage's serial or parallel ports. Qume provides a full line of printwheels in most of the popular typewriter faces with true proportional spacing.

Model	Sprint 11/40 Plus
Print speed	40 cps (Daisy wheel)
Bidirectional	yes
Characters per line	198
Maximum paper width	15"
Graphics (dots/inch)	n/a
Reliability* (hours)	5500

\* (Mean time before failure)





**MICROLINE PRINTERS**

The Microline series from Okidata offers a full line of dot-matrix printers ranging from 80 to 200 characters per second. Most models are available with either RS-232C or Centronics-compatible parallel ports. (parallel is standard). Additionally, all point addressable graphics up to 103x72 dots per inch are available.

Model	80	92	93	84
Print speed	80 cps	160 cps	160 cps	200 cps
Bidirectional	n/a	yes	yes	yes
Correspondence quality	n/a	40 cps	40 cps	50 cps
Characters per line	80	136	233	231
Maximum paper width	9.5"	9.5"	16.0"	16.0"
Graphics (dots/inch)	n/a	72x72	72x72	103x72
Reliability* (hours)	4000	4000	4000	4000

\* (Mean time before failure)

**TAPE BACKUP**

This 1/4-inch cartridge tape unit is completely compatible with Sage microcomputer systems. It interfaces via the RS-232C port to provide a Winchester backup system. It is supported and documented with system software. The Model 70R stand-alone unit is manufactured by Digi-Data Corporation. It features 18Mb per tape storage with a transfer rate of 192K bits per second. The Model 70R is 5.2"(H)x8.95"(W)x14.7"(D).

**OPTICAL MOUSE**

For developers and experimenters interested in exploring alternate methods of data input, an optical mouse is offered from Mouse Systems Corporation. The "M1 Field-Mouse" allows fast cursor movements in any direction of a CRT. The M1 uses a long-wear scratch resistant desypad which features .01 resolution. User selectable options include: 300/1200 baud, protocol to detect rotation as well as translation, RS-232C or TTL.

This is a development item, and currently Sage offers no supporting software.

**MODEMS**

Communications software is already part of the Sage system, it takes only a modem to join the world of on-line data bases, electronic billboards, users groups, reference sources, mail, etc. The most popular of all microcomputer modems is the Hayes Smartmodem 1200. Operating at 300 or 1200 baud, this sleek sturdy device will send and receive data four times faster than most modems, saving as much as 50% on telephone charges. Easy to use features include automatic answering, dialing and redialing. There are eight front panel indicator lights to give a quick report on operational status. The Hayes Smartmodem 1200 plugs into the RS-232C port on any Sage microcomputer.

DESCRIPTION	PART NO.	PRICE
Qume QVT-102 (Green)	PH0010	\$ 690
Qume QVT-102 (Amber)	PH0022	\$ 710
Qume QVT-211 GX (Green)	PH0019	\$1,290
Qume QVT-211GX (Amber)	PH0025	\$1,310
Microline 80 dot-matrix printer, 80 cps	PH0003	\$ 450
Microline 92 dot-matrix printer, 160 cps	PH0008	\$ 690
Microline 93 dot-matrix printer, 160 cps	PH0009	\$1,190
Microline 84 dot-matrix printer, 200 cps	PH0005	\$1,350
Qume Sprint 11/40 printer, letter quality, 40 cps	PH0014**	\$2,095
Qume Sprint 11/10 Parallel Interface, 5'	PH0015**	\$ 100
Qume Sprint 11/40 Serial Interface, 5'	PH0016**	\$ 100
Hayes SmartModem 1200 (hardware only)	PH0013	\$ 699
Tape Cartridge Backup, Digi-Data	PH0020*	\$3,495
Optical Mouse with interface (hardware only)	PH0012	\$ 290

\* Required cables have the same specs as Modem port terminal cables.

\*\* When ordering Qume 11/40 an interface and one of these connector cables must be ordered. With Serial Interface: CC0095, CC0097, CC0098; with Parallel Interface: CC0096 or CC0025.



**"Indeed, the PCW Benchmarks... tend to support the general impression that the Sage makes even tired-out software look good."**

— *Personal Computer World*, February 1983

Sage breaks the tradition that high performance systems rarely have the supporting software to make them into useful tools for business and industry.

Because of Sage's overwhelming acceptance by the programming and software development community, literally hundreds of useful application programs have been written on, or for, Sage microcomputers.

Best of all, many applications that seemed sluggish or cumbersome on other micros, suddenly have a new snap and utility when running on the powerful Sages.

The Sage Software Directory is a companion volume to this publication and lists nearly 300 applications which run successfully on our machines. These programs have been developed by outside vendors for our system, but they are screened by Sage to insure that they meet certain standards of documentation and availability.

Certain packages offer special merit, either in performance, features, price or utility. Sage has selected a number of these applications to market and support directly. These are described briefly on the following pages. For more information or ordering, please contact Sage or your nearest Sage dealer. (See Page 24).



## Operating Systems

**CP/M-68K** — The 68000 version of this popular OS features a high performance multi-user package with flexible application program interface and utilities to provide a complete development system. Features include: CP/M and CP/M-86 compatibility, RAM support from 64K to 16Mb, up to 16 logical disk drives, C compiler, development tools, utilities, full access to MC68000 hardware features, and cross development tools. Multiple programs can co-exist in RAM.

Minimum requirements ..... Sage II  
SF0038 ..... \$350

**HyperFORTH-Plus** — Incorporates memory compactness with high speed to provide an ideal environment for program development. Features include: FORTH compiler, multitasking, full screen editor, setup utility for terminals, filer, smart/compiler/editor (allows immediate fixing of bugs during compilation), and a full-feature assembler with sources included. Extensive documentation is included to help recompile and reconfigure systems.

Minimum requirements ..... Sage II  
SF0040 ..... \$800



**Idris with C**—A multi-user, multi-tasking operating system that is compatible with most UNIX versions. Idris is closely modeled after Bell Lab's UNIX. Included are: C native compiler, library with portable routines, system and machine interface, programming support-linker, librarian, and object module utilities. Idris resident for I/O process scheduling and device handling code, utilities, text editor, filters, and Pascal-to-C translator with a Pascal support library.

Minimum requirements . . . . 512K, Sage II  
SF0071 . . . . . \$1,100

**Idris with C and Pascal compilers**

Minimum requirements . . . . 512K, Sage II  
SF0072 . . . . . \$1,250

*Compilers  
and Languages*

**p-System FORTRAN**—

Incorporates the features of the ANSI FORTRAN 77 subset. It contains most of the standard FORTRAN constructs as well as support: If, Then, Else Constructions, Character data-types, numeric intrinsic functions, standardized random access files, program overlays, and 16-digit precision.

Minimum requirements . . . . . Sage II  
SF0049 . . . . . \$375

**p-System BASIC**—A structured BASIC that is fully integrated into the p-System. Features include: un-numbered statements, If, Then, Else constructs, On . . . GOSUB commands, Print Using capability, Display and Display Using, 16-digit precision, arrays and subroutines with unlimited parameters, sequential and random file access. Include and Virtual arrays are also supported.

Minimum requirements . . . . . Sage II  
SF0050 . . . . . \$225

**SVS FORTRAN 77 Compiler**—A full ANSI standard FORTRAN 77 for CP/M-68K. The system includes a native code compiler, complex arithmetic support routines, character data types, If, Then, Else constructs, List directed and internal I/O, and a more natural Do loop specification. The system exploits the full addressing potential of the 68000, allowing essentially unlimited size programs as well as data areas and structures.

Minimum requirements  
CP/M-68K, Sage II  
SF0047 . . . . . \$595

**SVS Pascal Compiler**—Contains all the key features of the language as defined by Niklaus Wirth, plus extensions for CP/M-68K: otherwise case statement; variable length strings and string operators; random access, block, and interactive I/O; integer-to-pointer conversion, 2- and 4-byte integer arithmetic, moveright, moveleft, and fillchar. Separate compilation of units is also supported.

Minimum requirements  
CP/M-68K, Sage II  
SF0048 . . . . . \$595



**Absoft FORTRAN**—An implementation of ANSI FORTRAN 77 for use with the Idris operating system, Absoft FORTRAN features high performance with compilation speeds up to 3,500 lines per minute. Supported items include: all 6 standard data types, subprograms, block If and Do constructs, select case constructs, include files, conditional compilations, linking, and overlays. A screen-oriented debugger allows execution of individual source code statements to aid in correction of logic and coding errors.

Minimum requirements  
Idris, 512K Sage II  
SF0085 . . . . . \$1500

**Modula-2**—A new language concept designed by Niklaus Wirth, as a simple but powerful alternate to Assembly language, Pascal, C, and Ada. The language features: modules, concurrent processes, separate compilation, dynamic array parameters, and low-level machine access. Included with the purchase of Modula-2 are the ASE editor, Pascal Compiler, utilities for backup, file copy, disk-patching, communications, library modules, and full documentation including a Modula-2 introduction.

Minimum requirements . . . . . Sage II  
SF0021 . . . . . \$590



## Utilities

### p-System Development Package

—A collection of programming tools designed for use with the p-System. The package includes the Pascal compiler, symbolic debugger, native code generator, Assembler, linker, syntax, program analysis tools, application service interfaces, Sage programming tools for the IEEE-488 port, and Sage sources for the bootstraps. Five manuals are included; p-System Program Development, Technical, Assembler/SDT, Internal Architecture, and Application Development Manual.

Minimum requirements ..... Sage II  
SF0088 ..... \$375

**Sage Diagnostic Kit**—The kit contains the actual programs used by Sage to test our systems. Programs included in this kit are: **Cycler**-to test the CPU, timing, floppy drives, memory, and I/O ports; **Align**-for checking drive alignment; **Cleaner**-to be used with a head cleaning kit; **Mapper**-to test and map bad blocks on the Winchester hard drive; and **WGEN**-to build a blank hard drive into a bootable single-user system.

Minimum requirements ..... Sage II  
SF0083 ..... \$42

Several Accessories may be added to this kit.

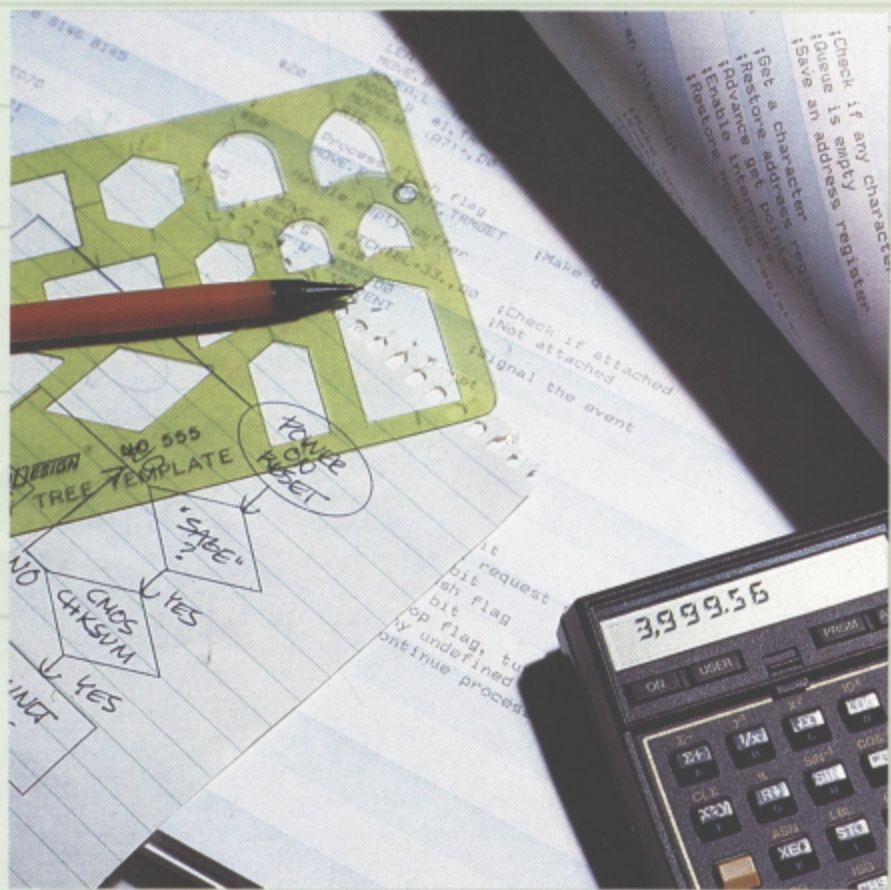
DK0003 Datalife Head Cleaning kit .. \$19

DK0007 80-track Dysan Diagnostic disk used with Align program ..... \$60

DK0006 40-track Dysan Diagnostic disk used with Align program ..... \$60

DK0048 Catseye Alignment Disk .... \$65

SU0003 Sage I/O test fixture used with Cycler program ..... \$90



**Sage Demo-Maker Kit**—This program represents a new concept in software demonstration. It may be used to show a prospective user the operation of a software package in a windowing environment without actually releasing any software. When properly annotated, the demonstration shows the major features of the software in action, with detailed explanation notes and variable pre-set timings for maximum display value. This is a unique package offered by few manufacturers.

Minimum requirements  
Two (2) Sage II and  
CC0059 or CC0060 cable  
SF0084 ..... \$200

**Sage Sources**—Includes source code for Sage boot ROM, Debugger, BIOS, SAGE4UTIL, and several other utilities. Source listings are well documented with in-line comments.

Minimum requirements ..... None  
SF0039 ..... \$50

**Essential Pascal Aids**—An extremely useful collection of p-System and Pascal programming tools and utilities, including p-Backup which backs up Winchester hard drives with floppies. A library of 5 units provides procedures and functions for screen masks, date manipulations, report generation, and a universal printer/terminal interface.

Minimum requirements ..... Sage II  
SF0073 ..... \$125



## Updates

**p-System IV.13 Update**—This release contains both the maintenance release from SofTech Microsystems, which fixes many past problems, and a new release from Sage. Two new utilities have been added QUICKSTART and PRINT. The p-System interpreter has also been enhanced. Sage has added user-friendliness to our systems. Included in this release is a "Business" disk that is menu driven and has an easy-to-use terminal configuration program. Multi-user setup has been simplified with the "Build" disk, a menu-driven program that will automatically install one of six configurations on your system. Sage has also added a user inter-communication facility and a communications program to use with a modem. The update comes with the complete set of newly-revised Sage documentation, including Getting Started-Word/7, Technical Manual, p-System Operating System, Assembler-SDT, and p-System Program Development.

\*For Word/7 and Spreadsheet

### Minimum requirements

**Word/7 & Spreadsheet**

SF0082 ..... \$200

Disks only

SF0081 ..... \$95

\*For BASIC and FORTRAN

### Minimum requirements

**BASIC and FORTRAN**

SF0087 ..... \$200

Disks only

SF0086 ..... \$95

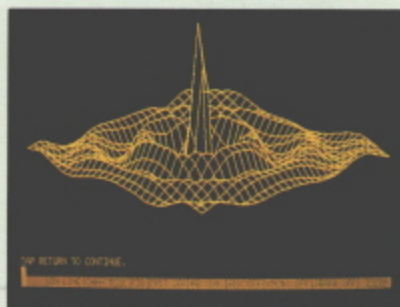
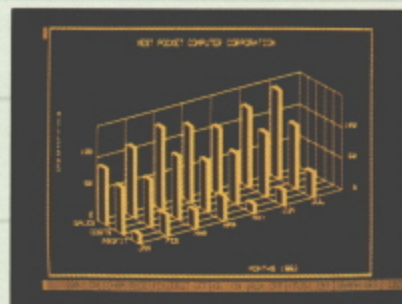
**CP/M-68K Update**—Included in this update are all the files necessary to make CP/M a multi-user system. Three disks are included: Build, (needed for system generation); Disk C and Utility disks which contain the multi-user files plus many useful utilities. A user-friendly manual describing the system generation and multi-user configuration is also included.

**Minimum requirement** ..... CP/M-68K  
SF0053 ..... \$60

## Graphics

**MCCPLOT & MCCGRAF**—A complete graphic development system for use with the Sage and selected graphic terminals. Commands are available to plot multi-sided figures, arcs and circles, alphanumeric, solid and dotted and dashed lines, filled polygons, etc. MCCGRAF plots over 13 different types of graphic charts from a single data set that can be produced with an editor, database or spreadsheet. The data set can consist of one 'x' axis coordinate and up to three 'y' axis coordinates. The chart selection includes bar graphs, line graphs, hi/lo/close charts, pie charts, polar diagrams, and three dimensional bar plots. MCCPLOT has routines designed to simplify creation of bar, line and pie graphs in addition to scatter diagrams with computed best fit curve. A software tutorial and 72-page manual are included.

**Minimum requirements** ..... CP/M-68K  
Sage II, Qume QVT 211gx  
graphics terminal  
SF0094 ..... \$700





## Databases

**Advanced Aladin Plus**—Aladin is a menu-driven relational data base, program generator, and spreadsheet calculator. It utilizes an unlimited number of key fields. A maximum of 256 files are carried on-line with 512 fields per file. More than a million records per file are available. It allows the use of many types of fields including alpha, numeric, alpha-numeric, and date. Efficient use of storage is assured by using only the room required by the actual data. Aladin is also an extremely powerful statistical package with graphic and word processing capabilities.

Minimum requirements ..... Sage II  
SF0054 ..... \$790

**Datafax Filing System**—This filing system allows entry of "anything" on a blank page with the ability to mark individual words or groups of words as "keys". Page recall is made by entering any of the key words. Sixty keys are available per page. Datafax is an excellent, unstructured database. It is "like having a file cabinet in your computer". It is extremely easy-to-use and flexible.

Minimum requirements ..... Sage II  
SF0052 ..... \$295



**Advanced DB Master**—This enhanced version of DB Master is designed especially with 16/32-bit computers in mind. It takes full advantage of the increased speed and memory available. It features: multiple diskette files, user-defined keystroke macros, text editing and text merging, computed fields, custom reports, dynamic table values, array searches, and audit trails, as well as many other useful tools.

Minimum requirements ..... Sage II  
SF0089 ..... \$795



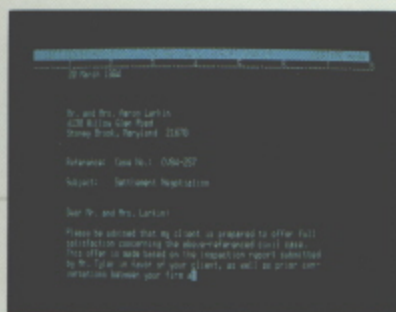
*Word Processors and Editors*

**Word/7**— Is an easy-to-use menu-driven word processor. Its features include: full-screen editing and formatting of documents, key-word substitution to support mailing list generation as well as mass mailings and a filing system to store documents for retrieval. The full-function editor features "mode-less" operation and simple overtype updating for simplicity of use by even the new computer user. Word/7 is easily configurable to many popular terminals and printers.

Minimum requirements ..... Sage II SF0051 ..... \$300

**Advanced System Editor**— ASE is based on the p-System editor that comes with every Sage microcomputer. It allows large file (greater than 32,000 characters) editing, user-defined functions, terminal key interface, change logging, editing, nested editing, and system interface for executive system functions without leaving the editor. ASE also automatically creates a backup of the file being edited.

Minimum requirements ..... Sage II SF0020 ..... \$170



**Sprinter-2**— When combined with a letter quality printer, Sprinter-2 prepares professional documents complete with indexes, table of contents, footnotes, multi-column formats, and many other features. The program features include: header and footer lines, horizontal and vertical margins, boldfacing, underlining, text reference markers and page layouts are generated automatically. Full horizontal and vertical control of the printer, allows for use of subscripts, superscripts, and non-standard characters. Overall, Sprinter-2 is a powerful text formatting program for use with any text file.

Minimum requirements ..... Sage II SF0024 ..... \$350

**Spell**— Eliminates misspelled words in text files. If Spell finds a word that is not in its dictionary, it provides a chance to correct it, ignore it or add it to the dictionary. Spell is also completely compatible with Sprinter-2. The dictionary starts at (40,000) words and it expands to available storage capacity.

Minimum requirements ..... Sage II SF0027 ..... \$125

**P-Print Text Formatter**— A great little formatter for those who need print formatting at a very good price. It does not have the features needed to do large manuscripts. The manual is very clear and easy to read with many examples for first-time users.

Minimum requirements ..... Sage II SF0035 ..... \$50

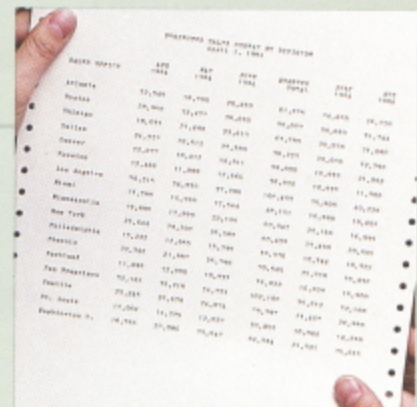
**Mince Word Editor**— Designed as a programmer's text editor for CP/M-68K. It features key editor functions including document manipulation by word, sentence, paragraph, or region. It has helpful additions such as nested edit or undelete and optional word-wrap. Two introductory lesson sets and an easy-to-use configuration program are included.

Minimum requirements CP/M-68K, Sage II SF0046 ..... \$170

*Spreadsheets*

**Timberline Spreadsheet**— This spreadsheet is designed to be a flexible planning tool with hundreds of applications including "what-if" projections. It can handle a grid with up to 200 rows and 100 columns with subsidiary spreadsheet capabilities. More flexible than most, this package has over 40 functions and allows editing of fields individually, globally, or by row and column. Fields may be alphabetical or numeric. Calculations ranging from simple addition to linear regression may be performed on any numeric field. This package is well documented and user-friendly with on-line help.

Minimum requirements ..... Sage II SF0022 ..... \$390





## Accounting

The **STATE OF THE ART** family of business accounting applications combines sophistication with ease of use. It is comprehensive and powerful business software usable by even the most inexperienced computer operator. These applications are best suited for small to medium businesses.

**General Ledger**—The heart of any good accounting package is its General Ledger; State of the Art is no exception. It features interactive account maintenance, simplified journal entry, and audit trails, to allow quick data entry. Up-to-the-minute account information and reporting is possible.

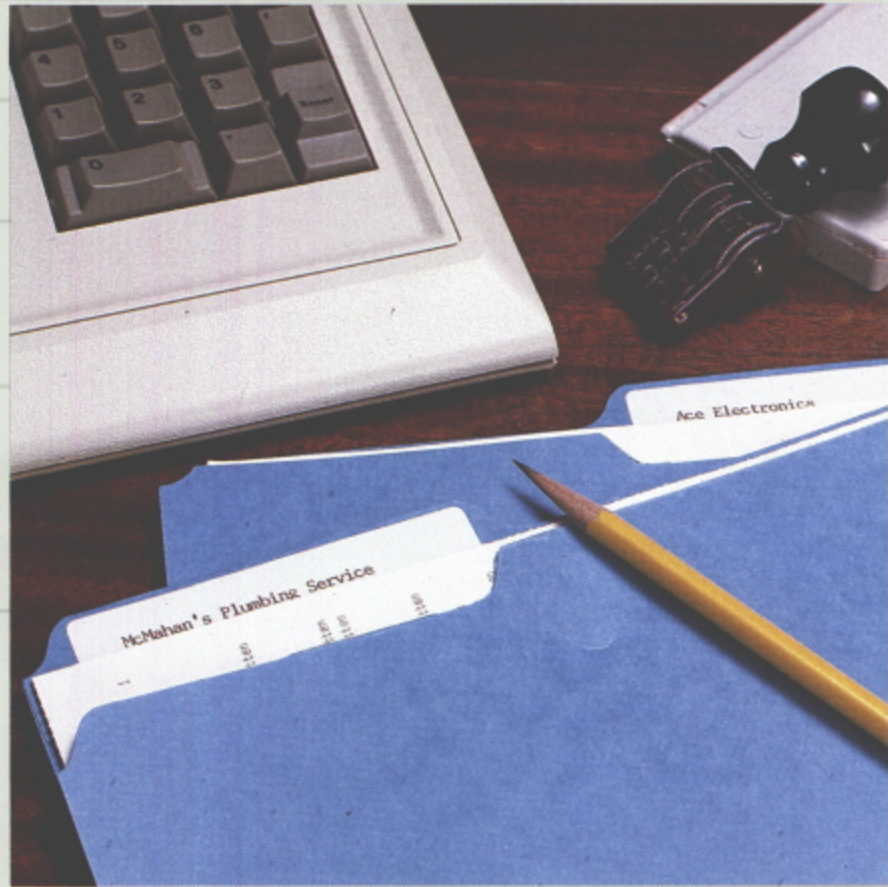
Minimum requirements ..... Sage II  
SF0062 ..... \$595

**Budget & Financial Reporting**—When combined with General Ledger, this module allows expanded budget and history information for complete budget analysis. Features include custom, divisional, departmental, budgetary, and comparative reporting.

Minimum requirements ..... Sage II  
SF0063 ..... \$495

**Accounts Receivable**—This module permits enhanced control over collections, cash receipts processing and credit policy decision making. Simplified data entry makes invoice and cash receipt processing quick and easy. An extensive reporting system allows for delinquency and aging reports.

Minimum requirements ..... Sage II  
SF0064 ..... \$595



**Accounts Payable**—The AP module brings greater control over your cash by easing management payment policies and forecasting cash needs. Features include vendor term maintenance, bank account information, calculation of discounts, up-to-the-minute recordkeeping and detailed purchase reports.

Minimum requirements ..... Sage II  
SF0065 ..... \$595

**Inventory Control**—Accurate inventory costing and more efficient purchasing are two of the benefits of the inventory module. The system keeps track of economic purchasing and inventory policies as well as trace inventory movements. Min/max and EOQ are available. Several costing methods including LIFO, FIFO and Average are offered. Physical inventory counting is aided with automatically-generated count sheets.

Minimum requirements ..... Sage II  
SF0066 ..... \$595



**Sales Invoicing**—This package links with Accounts Receivable to speed processing. Customer addresses, terms, billing instructions and pricing data are all maintained. Features include invoice printing, comprehensive sales journal reporting, daily invoice recaps, gross profit analysis, sales commissions reports and monthly profitability. When linked with Inventory Control, the system automatically updates inventory balances, usages and sales.

Minimum requirements ..... Sage II  
SF0067 ..... \$495

**Payroll**—The payroll module provides a detailed employee compensation package. Multiple payroll periods and pay rates allow for both salaried and hourly employees. Compensation and deduction calculations, including check printing is performed automatically with corresponding audit trails.

Minimum requirements ..... Sage II  
SF0068 ..... \$595

**Professional Time & Billing**—This software is designed for professionals who bill services on an hourly basis. It provides an accurate method of recording and billing time and expenses, while also converting that information into client billings. Features include client billings, cash receipts and up to 16 special productivity, budget and management reports.

Minimum requirements ..... Sage II  
SF0069 ..... \$795

**Hard Disk Installation Kit**—This kit is required to install or transfer State of the Art programs and data to the Winchester hard drive of Sage IV systems.

Minimum requirements ..... Sage IV  
SF0074 ..... \$95

**An accountant's or bookkeeper's ability to process, retrieve and effectively present his client's financial data is essential. Basic Business Computers has designed a complete client accounting system to fill the needs of accountants.**

**Client Accounting System**—This is the complete package for accountants. It includes all the modules detailed below: general ledger with passive payroll and report generator, professional time scheduling and billing, depreciation, lease analysis, loan amortization and random number generation. Also, setting up new clients is fast and easy. The unpost feature allows editing of errors for producing perfect reports. Accounts can be inserted dynamically when entering data. An automatic balancing feature is convenient when entering data. Report generators are flexible and easy-to-use for customizing reports. It is one of the most powerful, packages available on a micro-computer.

Minimum requirements ..... Sage II  
SF0089 ..... \$4000

**Client WriteUp**—The general ledger is the core of the Client Accounting System. It has more features than most stand alone GL packages, but its real asset is its successful integration into the client WriteUp Systems. It allows full editing and unposting features. The journal process allows transactions to be entered in any one of the ten available transaction journals. A sophisticated reporting system allows printing of separate departmental reports or consolidating them all into one. Fully detailed cumulative ledger and complete financial statements are among the many reports available. Also included in the Client WriteUp is a payroll subsystem that allows the accountant to summarize "after the fact" payroll

transactions, both in the general ledger and in employee earnings records. Full reporting of employee earnings records are available at any time.

Minimum requirements ..... Sage II  
SF0090 ..... \$3000

**Business Analysis Package**—This package contains the Depreciation Schedule, Lease Analysis, Loan Amortization, Random Number Generator, and Present Value programs. Some of its features include: multiple depreciation methods (straight line, declining balance, sum of the years digits, accelerated cost recovery and leasehold amortization); lease analysis in accordance with FASB 13 (both operating and capital leases are supported); loan amortization; annual summaries with total interest tax deductions; and a random number generator (useful during audits to generate a sorted list of random numbers with upper and lower limits). Many detailed informative reports are included with each of these products.

Minimum requirements ..... Sage II  
SF0091 ..... \$2000

**Professional Time & Billing**—Enables accountant's to set up a comprehensive costing system and client list. Once entered, all that is required is entry of time spent on each client by cost center. The bills can be adjusted, notes added, or parts of the bill held back as "work in process" before the final invoices are printed. A full report package is included.

Minimum requirements ..... Sage II  
SF0092 ..... \$1000

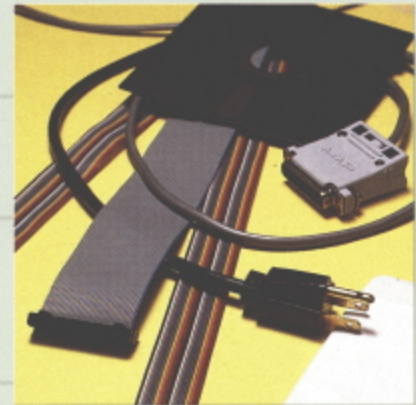


**"... the Sage II, a Motorola 68000-based machine that offers demanding business users more computing power than we've seen in any other personal computer."**

— Popular Computing, August 1983

The last step in completing your hardware selection is to choose the proper cables and connectors. Sage has given special attention to insure that the items listed below meet strict standards of material and design. Extra care has been taken to prevent static damage, poor grounding, safety and compatibility.

Careful examination of this section will save an extra, and annoying reorder. If, after reading this section, you are not sure of your needs, please contact your nearest Sage Computer dealer or Sage directly.



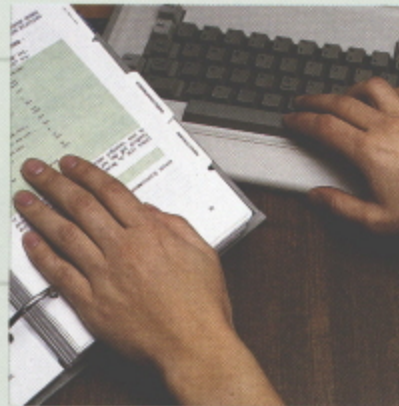
DESCRIPTION	PART NO.	PRICE
Dysan soft-sectored double-sided diskettes, 10 per box	DK0002	\$65
5' Sage terminal cable	CC0092	\$30
10' Sage terminal cable	CC0056	\$30
25' Sage terminal cable	CC0057	\$40
50' Sage terminal cable	CC0079	\$45
100' Sage terminal cable	CC0058	\$60
200' Sage terminal cable	CC0080	\$90
10' Modem port terminal cable	CC0038	\$30
25' Modem port terminal cable	CC0039	\$40
50' Modem port terminal cable	CC0077	\$45
100' Modem port terminal cable	CC0040	\$60
200' Modem port terminal cable	CC0078	\$90
1' Qume 11/40 Parallel Interface & Centronics Port Connector Cable	CC0096	\$21
10' Parallel printer cable, Microline & Qume	CC0025	\$50
2' Sage to Hayes Modem cable	CC0091	\$38
10' Sage to Hayes Modem cable	CC0047	\$44
25' Sage to Hayes Modem cable	CC0048	\$50
100' Sage to Hayes Modem cable	CC0049	\$95
1' Qume 11/40 Serial Interface & Modem Port Connector cable	CC0095	\$21
10' Qume 11/40 Serial Interface & Modem cable	CC0097	\$44
25' Qume 11/40 Serial Interface & Modem cable	CC0098	\$50
10' Sage Software Demo Recording cable	CC0059	\$65
25' Sage Software Demo Recording cable	CC0060	\$85
2 Meter IEEE-488 cable	CA0011	\$95



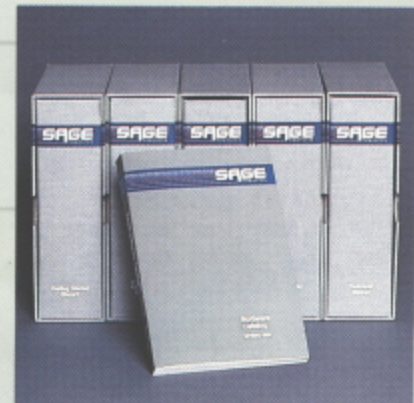
Sage has always enjoyed a reputation for producing a wealth of documentation complete with full technical information. Recent updates have added an element of user friendliness to that mix, and now Sage documentation is not only drawing praise from engineers and developers, but from the general public as well.

All Sage systems are supplied with "Getting Started" and the "p-System Operating System" manuals. Three optional manuals, "Technical", "Assembler/SDT", and "p-System Program Development" complete the full user set.

Two supplementary publications are of note: "Sage News", provided monthly for one year upon return of a completed Registration Card and available thereafter by subscription; and "Personal Computing with the UCSD p-System", an excellent primer for those new to this popular operating system.



Additionally, Sage provides a number of excellent manuals as aids to other operating systems, languages and applications.

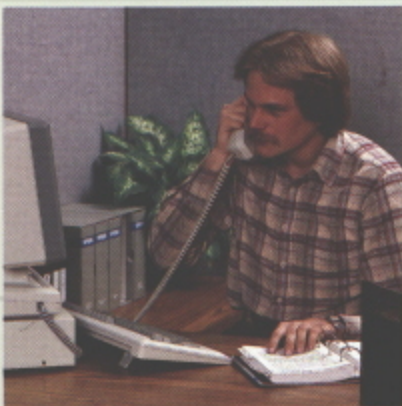


DESCRIPTION	PART NO.	PRICE
Sage Software Directory	DC0054	\$7.50
Sage News subscription (12 months)	ML0011	\$12
Getting Started, Word/7 manual	DC0049	\$35
Technical manual	DC0050	\$35
p-System Operating System manual	DC0051	\$35
Assembler/SDT manual	DC0052	\$35
p-System Program Development manual	DC0053	\$35
WORD/7 manual	DC0047	\$15
Internal Architecture manual	DC0056	\$35
Timberline Spreadsheet manual	DC0048	\$50
Personal Computing with the UCSD p-System	DC0055	\$15
p-System FORTRAN manual	DC0045	\$30
p-System BASIC manual	DC0046	\$30
Idris User's Manual	DC0059	\$27
Idris Pascal Programmer's Guide	DC0060	\$27
Idris C-Programmer's Guide	DC0061	\$27
Idris Programmer's Guide	DC0062	\$27
Idris User's Guide (Sage Installation)	DC0063	\$18
Idris C-Interface Manual for the 68000	DC0064	\$27
Motorola 68000 user's manual, 231 pages	DC0003	\$15
Introduction to Pascal, Zaks, 420 pages	DC0029	\$16
Pascal Handbook, Tiberghien, 473 pages	DC0030	\$20
MINCE manual	DC0042	\$25
SVS FORTRAN 77 manual (CP/M)	DC0043	\$25
SVS Pascal manual (CP/M)	DC0044	\$25



***"Service after the sale is vital to the success of a microcomputer. We spend a lot of time here to make our Customer Support the best in the business, and that effort is not going unnoticed. A recent Microcomputer User Survey published by DataPro Research Corporation gave Sage Computer consistently high marks, but in the category of "Vendor Technical Support and Hardware Maintenance" we scored an impressive 3.9 out of 4.0. That was the best rating received by any manufacturer of micros."***

— William Delaney, Sage Vice President of Marketing



**QUALITY BEGINS WITH DESIGN**

Sage Computer continues the innovative practice of using proven technologies to deliver performance and quality found only with much larger and more famous manufacturers. Every Sage system is fully inspected and tested for dependable operation before it leaves the factory.

The disk drives, the boards, the power supplies, the PROMs, the RAMS, and all of the electronics of our equipment are visually checked and electronically tested to make sure they work when they reach Sage so that they work when they reach you.

At Sage, the quality of our products begins with the design. Our goal is for 100% reliability. In the highly competitive marketplace in which Sage is involved, the demand for reliability is paramount. If our single-user or multi-user systems fail, the activities of a department or an entire company could be interrupted.

Our quality control group has the ability to handle a complete range of critical disciplines: electronic systems to verify product performance; control systems for manufacturing consistency and continuous testing to validate long-range reliability.



***"The quality of my efforts reflects on the satisfaction of our users."***

— Lonnie Cline, Sage Technical Support Manager.

Microcomputer systems generally enjoy an excellent reputation for reliability, because the components themselves are manufactured under strict standards of quality.

If service is ever required on your Sage system it is readily available either directly from Sage or from one of our authorized dealers who have been trained by Sage Computer in Reno, Nevada.

All Sage microcomputer hardware is covered by a limited 90-day Warranty. Extended warranties are available as listed below for one, two, and three year periods. Please note that the extensions must be purchased before the expiration of the 90-day initial warranty period.

**SAGE II Warranty**

- 1-Year extension . . . . WR0002 . . . \$250
- 2-Year extension . . . . WR0003 . . . \$500
- 3-Year extension . . . . WR0004 . . . \$750

**Sage IV Warranty**

- 1-Year extension . . . . WR0005 . . \$ 500
- 2-Year extension . . . . WR0006 . . \$1,000
- 3-Year extension . . . . WR0007 . . \$1,500





# ORDERING INFORMATION

*How to Order Sage Computer Products*

It's easy to order your complete Sage Computer system or any of the other items listed in this catalog. Simply follow the steps listed below.

- Step 1.** Carefully examine the catalog and fill out the Product Checklist below to determine your exact needs.
- Step 2.** Contact the nearest Authorized Sage Computer Dealer in your area. A complete listing may be found on Page 24.
- Step 3.** If your local Sage dealer is unavailable, please feel free to call one of the Sage Regional Offices directly.
  - In the Northeast, the number is 617-229-6868
  - In the South, the number is 214-392-7070
  - In the West, the number is 702-322-6868
- Step 4.** Enjoy your powerful Sage microcomputer!

DESCRIPTION	PAGE	PART NO.	PRICE	TOTAL
<b>SAGE II</b>				
One 640K floppy	6	SC0082	\$ 3,200	
Two 640K floppies	6	SC0083	3,900	
RAM Expansion to 512K	6	RA0011	500	
<b>SAGE IV</b>				
One 640K floppy				
12M Winchester	7	SC0084	7,300	
18M Winchester	7	SC0085	7,900	
40M Winchester	7	SC0086	10,200	
Two 640K floppies				
12M Winchester	7	SC0087	8,000	
18M Winchester	7	SC0088	8,600	
40M Winchester	7	SC0089	10,900	
<b>RAM Expansion</b>				
to 512K	7	RA0012	500	
to 1 Megabyte	7	RA0013	1,500	
<b>PERIPHERALS</b>				
<b>Terminals</b>				
Qume QVT-102 (Green)	10	PH0010A	690	
Qume QVT-102 (Amber)	10	PH0022A	710	
Qume QVT-211GX (Green)	10	PH0019A	1,290	
Qume QVT-211GX (Amber)	10	PH0025A	1,310	
<b>Printers</b>				
Qume Sprint 11/40	10	PH0014	2,090	
Parallel Interface	10	PH0015	100	
Serial Interface	10	PH0016	100	
Microline 80	11	PH0003	450	
Microline 92	11	PH0008	690	
Microline 93	11	PH0009	1,190	
Microline 84	11	PH0005	1,350	

DESCRIPTION	PAGE	PART NO.	PRICE	TOTAL
<b>SOFTWARE</b>				
Operating Systems	12			
Compilers/Languages	13			
Utilities	14			
Updates	15			
Graphics	15			
Databases	16			
Word Processors and Editors	17			
Spreadsheets	17			
Accounting	18			
<b>ACCESSORIES</b>				
	20			
<b>DOCUMENTATION</b>				
	21			
<b>EXTENDED WARRANTY</b>				
	23			
<b>TOTAL</b>				

All prices and policies listed in this catalog are RETAIL ONLY and are valid until superceded. Payment may be made by check, money order or VISA/MasterCard. Terms are prepaid, COD, or net 10 days on approved credit. All shipping charges will be Freight Collect from Reno, NV. Nevada residents must add 6% sales tax. Massachusetts residents must add 5% sales tax. Residents of Texas must add the appropriate local and state sales tax.

Prices are subject to change without notice. We reserve the right to correct typographical pricing errors.

Qualified educational institutions are eligible for a 20% discount on Suggested Retail prices on microcomputer systems and RAM memory (Part No. prefixes SC, SX or RA only). Authorized purchase order is required.



**"I've long thought Sage had the best  
68000 based computers on the market.  
Now I'm certain of it."**

— Jerry Pournelle, *BYTE* Magazine,  
May 1984

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