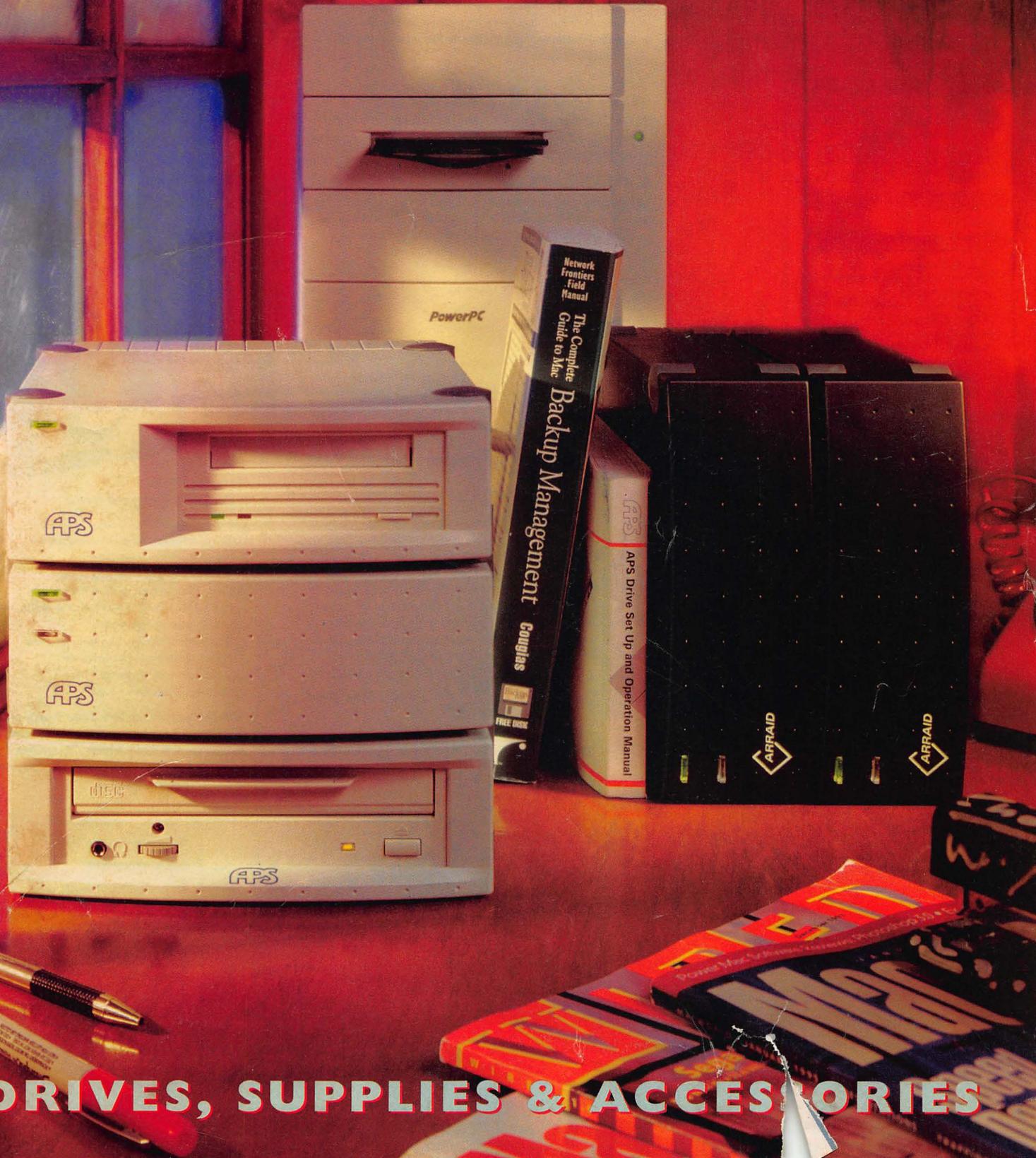


APS TECHNOLOGIES

Hard Drives, DAT, SyQuest, MO, CD ROM, Media, PowerBook & Newton Stuff, SCSI Gear

Vol. 4 Issue 1
\$2.95

Winter '95



DRIVES, SUPPLIES & ACCESSORIES

• The APS Difference	2-3
• APS Hard Drives	4-9
270 - 1GB Drives	4-5
1GB - 2GB Drives	6-7
4GB - 9GB Drives	8
Audio Video Drives	9
• ARRAID Drives	10
• APS MO Drives	11
• APS DAT Drives	12-13
• APS SyQuest Drives	14-15
• PC Parallel Port Compatible	16-17
• DATerm™ Technology	18
• SCSI Sentry & SCSI Sentry II	19
• Media	20-21
SyQuest Cartridges	20
MO Media	20
DAT Tapes	21
LabelOnce Products	21
• Media Storage	22-23
• Cleaning Supplies	24
• Cases & Brackets	25
• Cables	26-27
• Terminators & Adapters	28-29
Connection Kits	28
• UPS & Surge Suppressors	30
• PowerBook Drives	31
• PowerBook Power Products	32
• PowerBook Accessories	33
• Carrying Cases	34-35
• Customized Work Environments	36-37
• RAM	38
• Organizers, Printers & Supplies	39
• Modems	40
• Communications	41
• Network Connections	42
• Software	43
• Books	43-47
The complete Guide to Mac Backup Management	43
PowerMac Secrets 2nd Edition	44
• Training Videos	47
• Multimedia	48-51
Software	48-50
CD ROM Drives	49-51
CD Bundles	51
• Closeouts	52
• Order Form	53



Dear customers and friends,

Happy New Year! – and welcome to our Winter 1995 catalog. Though our primary goal here at APS is to produce the best storage, backup and related accessory products available, and then to provide the finest service and support available anywhere to support them, it was on the repeated request of a number of our customers that we began offering the wider variety of products represented by this catalog. Originally we offered for sale a number of the products that we normally stocked and used in our own business every day. As our catalog grew, we began to offer a wider variety of products in what has become the catalog you have before you. Nonetheless, we still use, evaluate – and sometimes even abuse virtually every product we offer in this catalog just to be certain that those products offer solid functionality, great value and anticipated performance.

Inside these pages, you'll find products from some of the best known companies in the industry. You'll also see exciting and interesting products from less well-known companies who just haven't received the exposure. You'll also find features, hints and tips from one of the most respected writers in the computer business, Steven Bobker.

Read on and enjoy! If you find something that interests you and you'd like more information, just call. If you find something you just can't live without and decide to place an order – that'll be fine too. In either case, we hope you'll find this catalog helpful, interesting and informative. Thanks again!

Sincerely,

Paul Mandel
President

Paul McGraw
Executive Vice President

6131 Deramus
PO Box 4987
Kansas City, MO
64120-0087
816-483-1600

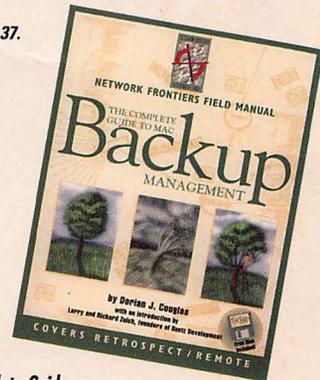
Great New



Handeze

One of the most popular products we've introduced over the last few years, Handeze Gloves have made thousands of keyboard users more comfortable in their work.

See page 37.



The Complete Guide

to Mac Backup Management covers:

- How to decide what to backup – and when
- Reduce network overhead and optimize backup performance
- Set up an effective network backup topology
- Understand how to choose and use backup hardware
- Proper selection, care, feeding and storage of backup media
- Backup or archive – why the difference could cost you your job.
- How to restore, when to restore and why...
- Priceless, detailed instruction on getting the most out of Dantz' Retrospect – material not available anywhere else!
- Santorini's Server Sleuth Software – a \$99 Value!
- Valuable electronic form templates on disk

"Whether you back up once a day or once an hour doesn't make a difference if you can't restore the information in a timely manner." Learn how to backup and restore properly with *The Complete Guide to Mac Backup Management*.

See page 43.

The Companion II: The Best Portable Solution!

And that's only half the story. Our amazing portable Companion II drives are available in the same capacities as our internal PowerBook drives. They provide pure, portable storage power for anyone who needs lots of megabytes that can be moved almost anywhere. The answer for the network administrator who doesn't want or need to tie up the network to do set-ups or updates, or for the user who needs a portable backup or additional drive to store and transport data.



See page 31 for details.

APS Is Your Information Resource!

We cover all your information needs by keeping up-to-date books written by the best authors in the industry and current learning videos covering the most popular software programs.



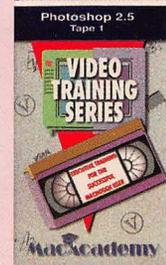
Look for new CD ROM titles and bundle packs See pages 48-51.

New Book Titles See pages 43-47.

Tired of those repetitive action sequences?

Watch & You'll Learn!

Are you tired of learning new software programs from the manuals provided in the package? Or do you spend a fortune on training classes? If so, MacAcademy training videos are for you! Now get the same kind of attention from a private instructor for a fraction of the cost. Buy an entire series and save even more!



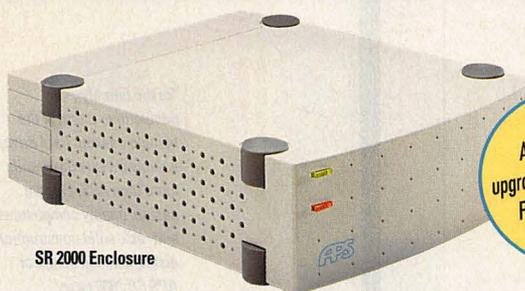
Training Videos See page 47.

Products from APS!

SR 2000 Enclosure

Now for the first time, you can get our award-winning SR 2000 enclosure by itself! That's right, you can now purchase the SR 2000 enclosure as a kit without the drive.

See page 25.



SR 2000 Enclosure

All APS SR 2000 upgrade kits come with FREE installation video.



The New APS 3.5" 230MB MO

Now pack nearly 218MB of data on a compact, inexpensive magneto-optical cartridge with the new APS 230 MO. Fully ISO compliant, the new APS 230MO is also compatible with 128MO cartridges.

See page 11.



APS 230 MO

APS Mini SCSI Link

At last a premium quality short length SCSI cable to help you minimize that cable mess – and overall SCSI chain length.

See page 26.



APS T3501

I knew my staff was working on a Quad-Speed CD ROM drive. But when they told me we were going to be able to sell it for \$299.95, even I was shocked!

That would be a great price on even a basic CD ROM, but with the T3501 you get Quad-Speed performance, our stackable, highly-advanced SR 2000 case with DATerm, the new APS PowerTools 3 software for CD – hey, this thing is cutting edge all the way!

See page 49.



APS PowerBalls Set II

APS brightened that dull granite PowerBook world with PowerBalls. Now, take advantage of our exciting new colors with the APS PowerBall Set II. China Blue, Fire Engine Red, Grape Purple, and Black (eightball).

See page 33.



APS SyGUARD™

Get the most from your 44 and 88MB SyQuest-based drive by prolonging its life. The APS SyGUARD stops the mechanism-damaging flow of dirty, dust and spore-laden air through the unit during operation. SyQuest Technologies says "... just use it!"

See page 14 for details.



APS SyGUARD

Noise Cancellation Headset

Use military aviation noise cancellation technology to quiet your home or office work environment. You'll be amazed how much less fatiguing your work will become when you can eliminate the bothersome, stressful background noise of fans, monitors, drives and fluorescent lights. Noise cancellation technology can make them all disappear almost magically, improving your productivity and reducing distractions.

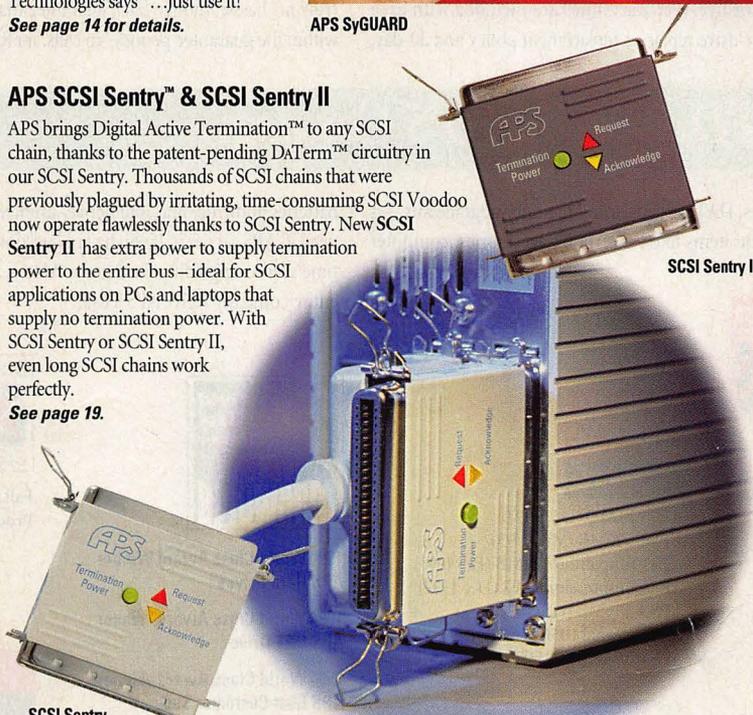
See page 36 for details.



APS SCSI Sentry™ & SCSI Sentry II

APS brings Digital Active Termination™ to any SCSI chain, thanks to the patent-pending DATerm™ circuitry in our SCSI Sentry. Thousands of SCSI chains that were previously plagued by irritating, time-consuming SCSI Voodoo now operate flawlessly thanks to SCSI Sentry. New SCSI Sentry II has extra power to supply termination power to the entire bus – ideal for SCSI applications on PCs and laptops that supply no termination power. With SCSI Sentry or SCSI Sentry II, even long SCSI chains work perfectly.

See page 19.



SCSI Sentry

SCSI Sentry II



APS D 1.0



APS D 2.0

APS D 1.0 & APS D 2.0

These new drives based on DEC/Avastor mechanisms deliver impressive performance, exceptional reliability and outstanding value.

See pages 6 & 7.



APS MS 4.0



APS MS 9.0

APS MS 4.0 & APS MS 9.0

These new APS MS 4.0 and 9.0 drives deliver some of the fastest transfer rates we've tested with the exceptional reliability that's typical of the Micropolis mechanisms incorporated within.

See page 8.



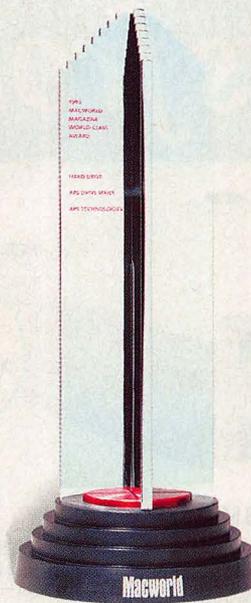
Helpful tips, tricks and opinions from one of the best known authors in the Macintosh market, Steven Bobker. Former editor-in-chief of MacUser, Steven has been a Mac columnist for MacUser, Computer Shopper & MacGuide.

1
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

All Hard Drives Are Not Created Equal!

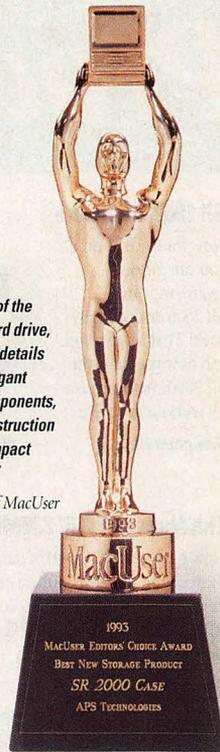
- **Award-Winning Products** – Editors and users agree on APS!
- **Technological Superiority** – APS' exclusive Digital Active Termination™ or DATerm™, and enclosure technology solve many of the problems commonly associated with the use of SCSI devices.
- **Award-Winning Service and Support** – APS Technical Support and Service are the benchmarks by which others are measured.
- **Manufacturer-Backed Warranties** – Clearly identified, cheerfully supported. Benefit from APS' longevity in the market place and high volume, strategic vendor relationships.
- **Industry's Only True No-Hassle 30-Day Money-Back Guarantee** – No RMAs, no permission needed. Just pack everything up and have it back to us by the date indicated on the invoice.



1993 Macworld Magazine World Class Award – APS Hard Drive Series. Chosen by Macworld Magazine Readers.

"In the fiercely competitive world of the humble desktop hard drive, nobody sweats the details more than APS. Elegant design, quality components, and rock-solid construction distinguish the compact APS SR 2000 case."

– Editors of MacUser



Rating APS: The toughest tests are our own.

All of our drive mechanisms are carefully selected from among hundreds available. We choose one over the others because it delivers better performance, value and/or reliability. Each new drive mechanism is put through a rigorous evaluation, then rated against similar competing products. After qualification, every drive shipped goes through an exacting multi-level set of tests to ensure quality, reliability and performance. The specifications quoted by APS sales associates are from APS' internal qualification tests – tests that closely approximate the working environment of real Macintosh users.

Because any product is only as good as its weakest component, only the best constructed, award-winning enclosures, premium SCSI connectors, advanced termination technology and the highest quality cables in the business – manufactured to APS' own exacting specifications –

go into APS' external drives. Our power supplies exceed the drive mechanism's requirements and must meet even more rigid APS specs. Our external drives are FCC tested and certified. Our patent-pending Digital Active Termination or DATerm technology is the industry's first use of digital IC circuitry to make the SCSI peripheral user's life simpler.

APS' internal drives and backup systems make your life easy. They come mounted on their brackets ready for installation, complete with photo-illustrated installation instructions – easy for even the "technically uninclined" to follow. We specify higher quality internal ribbon cables than anyone else in the business, and it shows in unhampered performance, reduced boot failures and better data integrity.

Rest assured you've made the right choice.

Manufacturer-backed one-, two-, three- or five-year warranties are included with each product along with APS' exclusive drive-for-drive repair or replacement policy and 30-day,

truly no-hassle, money-back guarantee that's as easy as shipping the product back to arrive within the guarantee period. No calls, no RMAs, no hassles – no problem!

More than Hard Drives, the APS Catalog...

features items you buy frequently – diskettes, DAT cartridges and memory upgrade kits – at great prices. It also includes difficult-to-find items like PowerBook accessories, computer

batteries and true, line-interactive, uninterruptible power supplies. Chances are that if you need it, APS carries it. If you have a question, APS can answer it. We're here to please. So next time you're upgrading your home Mac, a room full of office Macs, a whole division or the entire company – give APS a call.

- ★★★★ APS ST 4.0 (Oct 1994)
- ★★★★ APS ST 9.0 (Oct 1994)
- ★★★★ APS MS 1.7 (Oct 1994)
- ★★★★ APS MS 4110 (Oct 1994)
- ★★★★ APS Q 540 (Aug 1994)
- ★★★★ APS Q 340 (Aug 1994)
- ★★★★ APS Q 170 ELS (Mar 1994)
- ★★★★ APS Q 240S (Mar 1994)
- ★★★★ APS MX 245 (Mar 1994)
- ★★★★ APS Q 160 GR (Jan 1994)
- ★★★★ APST 340 (Jan 1994)
- ★★★★ APS T 213 (Jan 1994)
- ★★★★ APS MS 1.2 (July 1993)
- ★★★★ APS PowerBook Go•80 (Feb 1993)
- ★★★★ APS MX 213 ZFP (Apr 1992)
- ★★★★ APS 210 Portable (Apr 1992)
- ★★★★ APS 210 ZFP (Apr 1992)
- ★★★★ APS 105 MB (Nov 1991)
- ★★★★ APS DAT (Oct 1991)



- APS 128 MO (Dec 1993)
- APS F 520MB (Mar 1993)
- APS Companion 120MB (Feb 1993)
- APS Compression DAT (Dec 1992)
- APS T 155MB (Dec 1992)
- APS External 105MB (Aug 1992)
- APS 170MB (Feb 1992)



1994 World Class Award Winner
APS Hard Drives

1994 World Class Award Winner
APS DAT Drive

1994 World Class Award Winner
APS Best Customer Support



Fall 1994 – BMUG Choice Product – APS hard drives



Best Hard Drive Series 1994



1994 Macworld Magazine World Class Award – APS Best Customer Support.

Critics and users agree!

APS products are recognized by the industry's toughest critics – both editors and users alike. In 1993, APS was honored by the readers of Macworld Magazine, who voted the APS Hard Drive Series the recipient of the 1993 World Class Award for best storage product. The Editors of MacUser awarded APS' SR 2000 drive enclosure the MacUser Eddy Award for the Best New Storage Product in 1993. In 1994 APS received three additional World Class awards.

APS' service and support are truly legendary. Our award-winning technical support staff – on call, toll-free, six days a week, is your best assurance that APS is the right choice for your storage and accessory needs. No question goes unanswered at APS. Ask one and you won't get a bunch of baloney. Instead, you'll get a computer professional who'll do his or her best to answer your question immediately, or find the answer quickly.

APS: Best Service & Support

In 1994, the readers of Macworld Magazine voted to award the coveted World Class Award for Customer Service to two companies who produce hardware products to the Macintosh market, APS Technologies and Apple Computer. Macworld Magazine cited the two as "companies that understood the value of maintaining a satisfied clientele."

"The Consultants Choice Award for Best Technical Support is bestowed upon the company who provides the finest, most complete technical support of their products or services from consultants' point of view. The use of the term 'technical' is from a consultants' point of view. Laymen might term this applications engineering support. Consultants require no nonsense, solid technical reasoning and solutions to application problems with products."

– Macintosh Consultants Network May 1994



1994 Macworld Magazine World Class Award – APS DAT Series.

1994 Macworld Magazine World Class Award – APS Hard Drives.



Consultants
Choice
Award
1994
Best Technical
Support
APS Technologies



Service Hero Award (Sept 1990)
Service Hero Award (June 1992)

APS is one of only a few companies to have ever been awarded Macworld's prestigious Service Hero Award twice!



1993 MacUser
Editors' Choice Award
Winner
APS SR 2000 Case
"Best New Storage
Product"



1993 World Class
Award Winner
APS Hard Drive Series.

APS SCSI Sentry™



...this device may well be the cure for your SCSI woes. Even if your SCSI setup is working OK, I heartily recommend SCSI Sentry as an extra ounce of protection.

– Macworld Magazine

APS Drives

We know what you're thinking...

Who's got the best products?

APS! Our products keep winning all of the most prestigious industry awards.

Who's got the best value?

APS! All you have to do is compare this catalog to our competitors' catalogs.

Who stands behind their products best?

APS! Our 6-day-a-week customer service and technical support are legendary in the Mac industry. Again, we have the awards to prove it.

Who's the most convenient to buy from?

APS! Our sales representatives aren't just order-takers, they're knowledgeable Mac professionals, and our sales lines are open right now.

Treat Your Computer Right

by Steven Bobker

Once a year take a day and give your computer system a full overhaul. Do this the first working day of each year, and you'll be rewarded with increased productivity all year long.

Your first step is to create a new and complete backup to the media of your choice.

Put this archival backup set safely away and move on to the next step. Trash all your preferences files. Corrupt prefs files are all too common and the source of many mystery crashes.

Next go through your folders one at a time. Remove all applications that you haven't used in the last year; either trash or archive them. This goes for games too. Use the shareware PowerScan program to weed out all your duplicate files. Run a good alias resolver

(Continued on page 5)

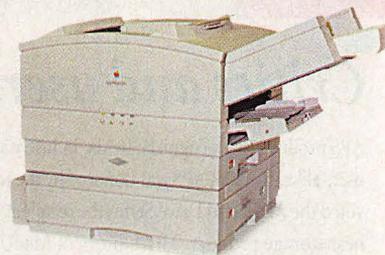
Drives For Every Computer From Macs to PowerPCs!



APS Q 270

The APS Q 270 is a great entry level offering for that large system, as well as the perfect upgrade from your old 80 or 100MB drive. With sustained transfer rates as high as 2.2MB per second, the APS Q 270 is an ideal addition to a Mac si, ci, vx, vi, LC II or LC III. The APS Q 270 in our SR 2000 enclosure is compatible with the entire Macintosh line. The APS Q 270 boasts seek times as low as 11.6 ms and average access times of 24 ms. An outstanding value, this is one of the first drives in the low-capacity range to deliver substantial data transfer rates. The APS Q 270 formats to approximately 258MB in a Macintosh, has a two-year warranty and a 300,000 hour MTBF.

ITEM	CODE	INTL	SR 2000
APS Q 270	19	\$179.95	\$279.95



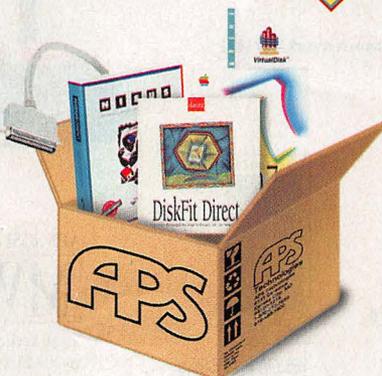
LaserWriter Pro

Take advantage of Apple's unsupported option with our new APS LW Pro 85 and APS LW Pro 170 drives for your LaserWriter Pro 630! Just format the new drive with Apple's LaserWriter Utility (v. 7.4 or later) which came with your LaserWriter Pro, and the APS LW Pro drive can store all those frequently used fonts, decreasing print time and ending that irritating problem of never having all the fonts you need to print important documents resident on your hard disk.

ITEM	CODE	INTL
APS LW PRO 85	A01	\$199.95
APS LW PRO 340	A23	399.95
APS LW PRO 520	A24	499.95

Every APS Drive Comes With All This Great Stuff!

- DiskFit Direct, Apple's System 7.0.1 Installed, APS PowerTools, Nisus Compact, Premium 25 x 50 SCSI Cable & Power Cord, VirtualDisk Lite & APS' Legendary Support



Boxes & Disks Not Included!



Internal Drives for Duo Dock

If you use a PowerBook Duo and Duo Dock, you know the pleasure of mobile computing at its best, and a full-powered desktop machine without the inconvenient data juggling necessary with two different CPUs. One of the nicest things about the Duo Dock is its ability to accommodate extra storage inside. These third-height 3.5" form-factor drives can be installed inside your Duo Dock to give your "desktop Duo" the storage boost it needs.

ITEM	CODE	PRICE
APS Q 270	19	\$179.95
APS Q 540	14	269.95
APS Q 730	A25	329.95
APS Q 1080	A40	599.95

APS LW Pro Drive Kit

If you're like us, you have at least one 2.5" PowerBook drive left over from when you decided that the 80 or 120MB drive in your PowerBook just wasn't enough storage. We called in our engineers and told them to solve the problem. Our superiorly engineered bracket is paired with a premium SCSI cable (in a really hard-to-find size) and our easy-to-follow photo-illustrated installation guide that make the APS LW Pro Drive Kit a must for your LaserWriter Pro 630.

ITEM	PRICE	CAT.#
APS LW PRO DRIVE KIT	\$69.95	40405

Note: Not all PowerBook hard drives are compatible with the LW Pro. Please check with the manufacturer or APS to make sure your drive will work with the LaserWriter Pro.

Now open 24 hours a day, 7 days a week



Treat Your Computer Right

(Continued from page 4)

like AliasBoss (also shareware) to clean up aliases without targets and reconnect broken links.

Now do a clean reinstall of your system software, and move on to hardware.

Clean all your screens and cases with Meridrew's klear screen. You'll be amazed at the dirt you'll remove.

Your keyboard is also filthy inside. Trust me on this. Open it carefully and brush it clean gently. Don't use solvents, liquids, or sprays. A soft brush is all that's needed. Clean your mouse or trackball now, too. Be sure all the connecting cables are uninked and unbroken. Carefully inspect the ends where the wires meet the connectors. That's what usually fails first. Replace any cables you have any doubts about.

Next check your SCSI chain. If it's been working you don't want to change it, but it still must be inspected. Make sure all cables and terminators are really tightly connected. Be sure the wire bails are locked correctly in place. Check all the cable to connector joints, paying particular attention to Apple PowerBook SCSI cables (many, if not most of the originals will have failed or be near failure by now, since they were too short and typically bent too tightly or kinked in use). Replace any dubious or old, thin style cables. Consider adding Digital Active Termination (DaTerm) via a SCSI Sentry if it's not already installed.

Finally, create two more full backups. These should become your first working sets of the new year.

APS Q 540

For mid-range storage needs, the APS Q 540 is an outstanding choice. A great match for the si, LC II, or III, vx, vi Centris or Quadra 700, the APS Q 540 delivers sustained transfer rates exceeding 1.9MB per second and seek times as low as 11.7 ms. A strong performer, the APS Q 540 formats to 516MB, and in our SR 2000 enclosure it is compatible with the entire Macintosh line. With an MTBF of 300,000 hours and a two-year warranty, the APS Q 540 is the ideal mid-capacity drive to fill your mid-range performance needs.



ITEM	CODE	INTL	SR 2000
APS Q 540	14	\$269.95	\$369.95

APS Q 1080

The APS Q 1080 is one of the first 1" high drives with capacities exceeding 1GB. It can be fit inside a Duo Dock, Centris 610, 650 or Quadra 605 through 700 as well as other Mac models requiring low profile drives and which supply adequate power. The APS Q 1080 delivers excellent sustained data transfer rates exceeding 3.6MB per second. With average access times as low as 18 ms and seek times as low as 10 ms, this is a great high-capacity drive to consider when upgrading the storage in your system. The APS Q 1080 is formatted to 1029MB in a Macintosh environment and is compatible with the entire Macintosh line. However, like all high-capacity drives, we do not recommend it for use with machines with less than 4MB of RAM. The APS Q 1080 has a 500,000 hr MTBF and a two-year warranty.



ITEM	CODE	INTL	SR 2000
APS Q 1080	A40	\$599.95	\$699.95

APS Q 730

The APS Q 730 is an outstanding performer that gives all the exacting specifications of the APS Q 540 plus the added bonus of more Megs for your money! Featuring the industry's first two-platter 730 MB drive. This is a great drive for any user. (Drive mechanism not shown)

ITEM	CODE	INTL	SR 2000
APS Q 730	A25	\$329.95	\$429.95

Drive Specifications for Lower & Mid-Capacity Drives

Drive	Avg. Seek Time (ms)	Trans Rate Sust. Read	Trans Rate Sust. Write	Warranty	MTBF	Formatted Capacity	Intl. Price Per MB
APS Q 270	11.6 ms	1.76MB/s	2.19MB/s	2-Year	300,000	258MB	.70
APS Q 540	11.7 ms	1.89MB/s	1.93MB/s	2-Year	300,000	516MB	.52
APS Q 730	10.8 ms	2.56MB/s	2.51MB/s	2-Year	300,000	699MB	.47
APS Q 1080	10. ms	3.20MB/s	3.65MB/s	2-Year	500,000	1029MB	.58

The blue bar indicates the drive with the best cost per MB, the violet bar indicates the drive with the best transfer rates in this group.

Prices and specifications subject to change without notice.

Tame that cable mess with StackIT or StackIT II!

APS StackIT and StackIT II

Clean up the mess around your SCSI drives! Shorten the length of that unruly SCSI chain for optimal SCSI performance with the APS StackIT and new StackIT II. The original APS StackIT works with our APS SR 2000 enclosures and drives to optimally shorten and shield the SCSI chain as well as stabilizing SR 2000 drive stacks. The original StackIT includes four concave "stacking" feet and our exclusive SCSI "C" connector that minimizes SCSI chain length by delivering the shortest possible SCSI connector length between devices. Heavy metal shielding protects the SCSI data signal from stray radiation and performance-killing signal interference.

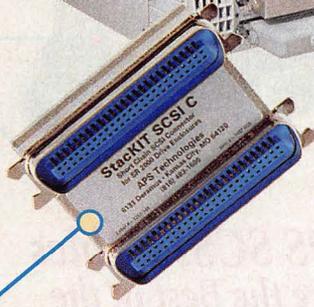
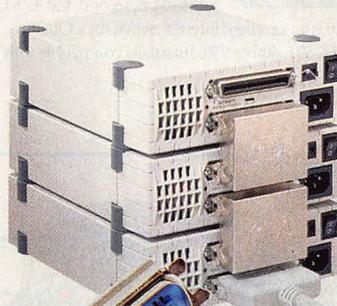
No More SCSI Mess

The new APS StackIT II accommodates those longer SR 2000 enclosures used for 5.25" mechanisms. Each StackIT II includes a set of concave SR 2000 stacking feet and our new Mini SCSI Link. Now you can stack your SR 2000 drives on a non-SR 2000 existing drive, and still minimize cable length, or stack all styles of SR 2000 drives in a shortened, optimally-shielded SCSI chain environment.

ITEM	PRICE	CAT. #
STACKIT	\$19.95	41460
STACKIT II	19.95	41462
MINI SCSI LINK	19.95	41722

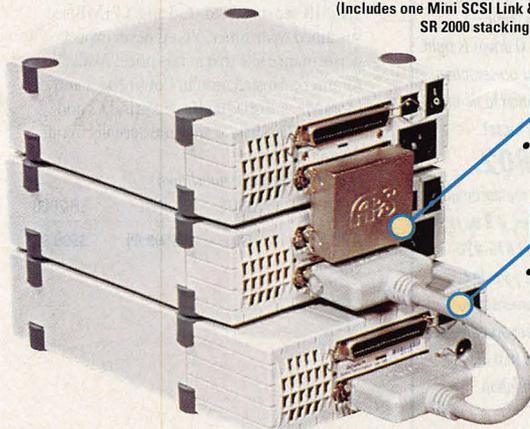
APS StackIT

(Includes one SCSI "C" Connector & four concave SR 2000 stacking feet)



APS StackIT II

(Includes one Mini SCSI Link & a set of concave SR 2000 stacking feet)



SCSI "C" Connector

- All APS cables and connectors use the highest quality materials and offer superior shielding

Mini SCSI Link

- SR2000 cases stack more compactly, with less wasted desk space.



Clean up the mess of cables around your SCSI drives! Shorten the length of that unruly SCSI chain for optimal SCSI performance with APS' StackIT or StackIT II.

APS Drives

When to Buy Into a New OS

by Steven Bobker

Every major change or totally new operating system (System 7.5, Windows 3.1, Newton) forces a user choice; Should I adopt this new software and, if so, when?

The first question is what sort of a hardware investment is required? If it's reasonable, or if you can foresee a quick payback on your investment, it's time to move on to the next question. That question is when will the software be ready for real users? In the three cases mentioned, the actual system software was pretty good — no horrible bugs. But none of it was perfect.

In all three cases, the system software publisher bragged about how much major-publisher software was available at the launch or would be soon thereafter. That software is vital, for without the tools you want and need, your computer or PDA is far less valuable than it could and should be. In all three cases, selected "major" publishers got advance copies of the software and special help so that they could have their new software ready at launch date. In all three cases, very few publishers even came close to having acceptable products ready at launch date. In no case was a compelling or life-of-the-franchise product available anywhere near launch date.

(Continued on page 11)



6
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24 Hours a Day, 7 Days a Week
Winter '95

These High-Capacity, High-Performance Drives Work With All Modular Macs, Even PowerPC Macs!



APS D 1.0

The new APS D 1.0 is based on the high-performance, 5400 RPM DEC/Avastor 1GB DSP 3107 mechanism. A performance powerhouse, the APS D 1.0 delivers average seeks as low as 10.2 ms and access times around 18 ms. Transferring data at a solid 3.44MB per second, the APS D 1.0 is an excellent internal match for a Quadra 605, 601, 800 or 950. Internally compatible with



most Macs that can accommodate a 3.5" third-height mechanism, external versions of the APS D 1.0 are compatible with almost all Macs produced since the SE/30. With a five-year warranty and a 500,000 hour MTBF, the APS D 1.0 is the drive to consider for your intermediate storage and performance needs.

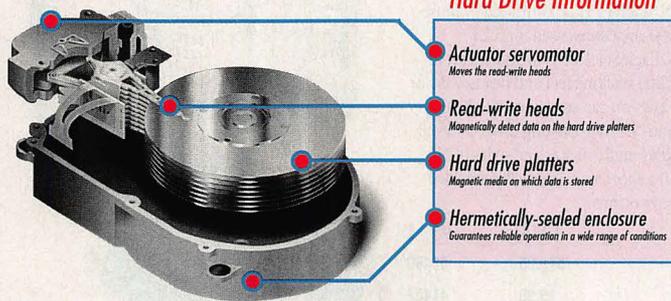
ITEM	CODE	INTL	SR 2000
APS D 1.0	D10	\$699.95	\$799.95



APS Q 2100

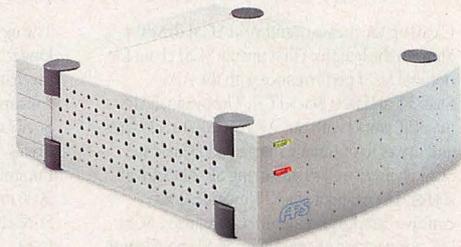
Our newest two-megabyte-class drive, the APS Q 2100 offers state-of-the-art performance and terrific value. In fact, the performance and price of the APS Q 2100 might make it the very best value in our line. Suitable for internal use with any Macintosh which can accept a 1.5" (half-height) drive, the APS Q 2100 is also available externally in our SR 2000 case.

ITEM	CODE	INTL	SR 2000
APS Q 2100	A42	\$1,099.95	\$1,199.95



Hard Drive Information

- Actuator servomotor**
Moves the read-write heads
- Read-write heads**
Magnetically detect data on the hard drive platters
- Hard drive platters**
Magnetic media on which data is stored
- Hermetically-sealed enclosure**
Guarantees reliable operation in a wide range of conditions



APS ST 1.0

The APS ST 1.0 offers 1010MB of formatted capacity, high performance, and a great price. The extremely high 800,000-hour MTBF and five-year warranty is your guarantee of reliability and longevity. And check out the 3.45MB/sec sustained read and 3.71MB/sec sustained write times. You'd never expect performance like that at this price! Available for internal installation in Power Macs and most Macintosh Quadra, Centris, LC, and Performa models, as well as externally in our SR2000 enclosure. (Drive mechanism not shown)

ITEM	CODE	INTL	SR 2000
APS ST1.0	G05	\$599.95	\$699.95

APS SCSI Cables Are the Best in the Industry

Now with a Lifetime Warranty*



(See pages 28 & 29 for details and complete listing of all our SCSI cables)

*Limited lifetime warranty includes cable replacement for defects or failure due to manufacture. Damage due to abuse or misuse is not covered. For a complete copy of this warranty, ask your sales associate.

APS Infobox Hotline:

It's late at night, you're going to see a big client first thing in the morning. Your recommendation for APS MS 4.0 drives is right there in that gorgeous full color presentation. You just need the spec information to tie the ribbon on the package. Fret no more! **Call 800-374-5802.**

Request a directory to identify the documents you need. In a couple of minutes, it'll be right there on your fax machine! Dial 816-920-4150 back from the handset of your fax machine and order all the documents you need, that APS MS 4.0 spec sheet and the spec sheets for all those other drives that didn't become part of your recommendation. What could be easier?



APS MS 2.0

As I write this, we're hours away from sending this edition of our catalog to the printers, but I've kept the art department late so I could slip in an announcement of our very latest drive, the APS MS 2.0. Actually formatting to just over 2 gigs, the APS MS 2.0 packs a lot of drive space in a slim 1" high design. But there's more to this drive than raw capacity. Advanced features like read-ahead caching (when formatted with APS PowerTools 3), a fast 8.5 ms average seek time, and the ability to handle write multiple consecutive commands in a single rotation of the platters means you'll see truly impressive real-world speed. Add in 650,000 MTBF reliability, and you can see why I think this one's a winner!

ITEM	CODE	INTL	SR 2000
APS MS 2.0	M06	\$1,299.95	\$1,399.95

APS ST 2.0

Unbelievable! That's what they're saying about the APS ST 2.0. A full two Gigabytes in a compact 3.5" half-height package! No slouch in the performance category, the APS ST 2.0 delivers an incredible 15 ms average access and 7.0 ms average seek as well as a 3.5MB per second transfer rate. In our SR 2000 enclosures with DaTerm, this is one of the high-capacity champs for use with any model Macintosh from the SE 30 through the PowerPC Macs. The APS ST 2.0 has a 300,000

ITEM	CODE	INTL	SR 2000
APS ST 2.0	69	\$1,299.95	\$1,399.95

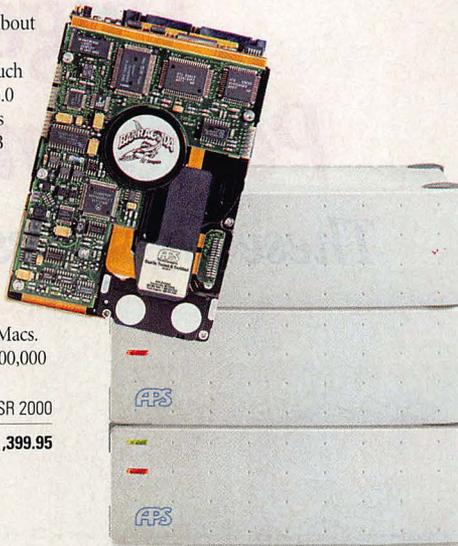
Drive Specifications for High-Capacity Drives

Drive	Avg. Seek Time (ms)	Trans Rate Sust. Read	Trans Rate Sust. Write	Warranty	MTBF	Formatted Capacity	Intl. Price Per MB
APS ST 1.0	9.7ms	3.45MB/s	3.71MB/s	5-Year	800,000	1010MB	.59
APS D 1.0	10.2 ms	3.09MB/s	3.44MB/s	5-Year	500,000	1020MB	.69
APS Q 2100	10.3. ms	3.77MB/s	4.02MB/s	5-Year	500,000	2006MB	.55
APS MS 2.0	8.5 ms	N/A	N/A	5-Year	650,000	2104MB	.62
APS ST 2.0	7.0 ms	3.51MB/s	3.54MB/s	5-Year	500,000	2040MB*	.64
APS D 2.0	9.6 ms	3.29MB/s	3.65MB/s	5-Year	500,000	2047MB*	.59

The violet bar indicates the drive with the best cost per MB and the best transfer rates in this group.

*Formatted in multiple partitions.

Prices and specifications subject to change without notice



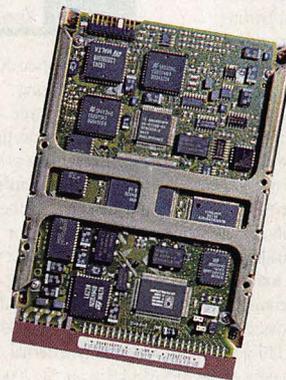
APS Drives

APS PowerTools 3

There is more to a great hard drive than great hardware. In order for a drive to function with your Mac, it must be formatted and have hidden device driver software written onto it. All APS drives for Macs arrive ready to plug in and use. We also provide a copy of our premium drive formatting and configuration utility with our drives and preformatted removable-media cartridges, even though you might never need it.

A while back, I challenged our technical staff to develop the most powerful, reliable formatting software ever. The result is APS PowerTools 3. PowerTools 3 is actually a stand-alone utility plus a powerful SCSI drive control panel. There is also a special version for use with APS CD ROM drives. The first thing you'll notice about version 3 is the clean, streamlined interface. We understand that many users are intimidated by drive management tasks, so APS PowerTools 3 is designed to automatically handle most tasks with a single mouse-click. But PowerTools 3 is more than just a pretty face. Experienced users who want to custom-configure their drives still have access to a full suite of formatting and partitioning options. This new PowerTools version was one of the first System 7.5-proven formatting utilities available. It's fully SCSI Manager 4.3-savvy and Power Mac compatible. It conforms to all of Apple Computer's applicable programming guidelines, so it will work in perfect harmony with any Mac's original drive.

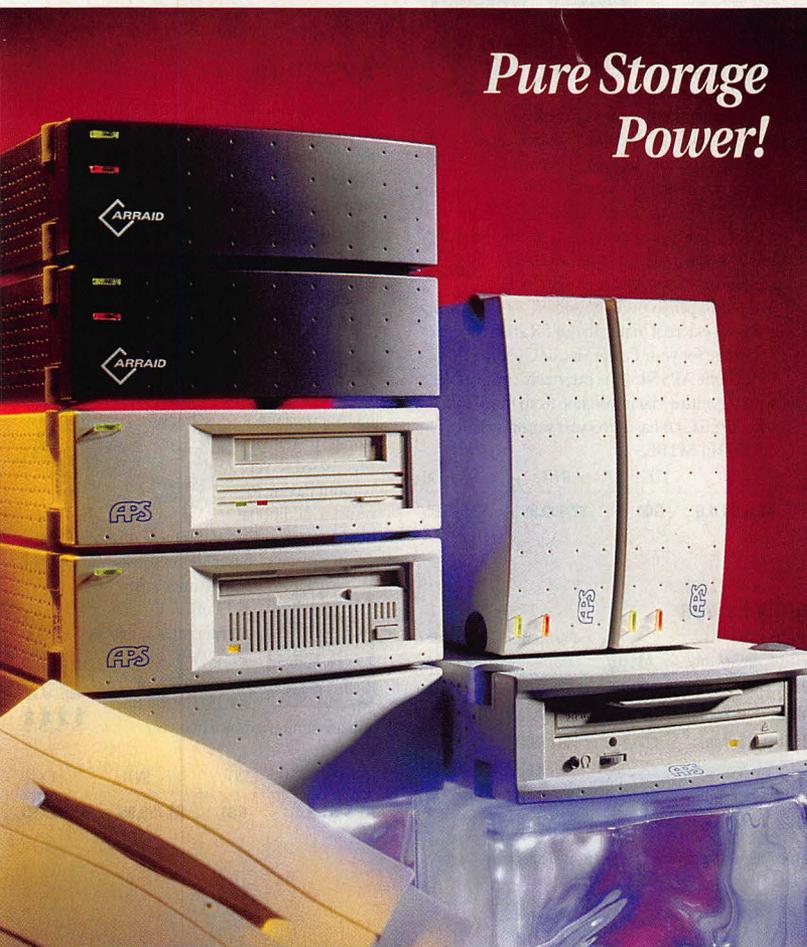
As proud as I am about our elegant case designs and high-quality components, APS PowerTools 3 might be the most impressive thing we put into an APS drive. It's a shame that most users will never think about all the work that went into APS PowerTools 3. On second thought, that's exactly the way it should be.



APS D 2.0

Great performance – high capacity, get both with the APS D 2.0. Based on DEC/Avastor DSP 3210 mechanisms, the APS D 2.0 sports impressive performance statistics including a 9.6 ms average seek and a 17 ms average access. With transfer rates as high as 3.65MB per second, this is a great drive to consider installing inside a Quadra 800, 950 or PowerMac. External configurations in our SR 2000 enclosure are compatible with virtually all Macs produced since the SE/30, and provide a particularly good match for the LCs, Quadra 605, 610, 800, 840 and 950, Centris 610 and 660 AV. The APS D 2.0 is supported by a 500,000 hour MTBF and a full five-year warranty.

ITEM	CODE	INTL	SR 2000
APS D 2.0	D20	\$1,199.95	\$1,299.95



7
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24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Performa's: Apple's Best Bargain

by Steven Bobker

The Apple Macintosh Performa series is a great idea. It combines powerful CPUs, which have direct equivalents in the regular Mac line, with all the bits and pieces like monitors and keyboards in one box, so that users have a true plug-and-play solution. All Performas come preloaded with ever-increasing amounts of software on their hard disks also.

Performas were designed to be sold through non-traditional Mac sources in an attempt to increase marketshare. Until recently, you could only find Performas at Sears, K-Mart's, office superstores like Office Depot, Staples, and Office Max, price club superstores like Costco, and electronics superstores like Circuit City and Silo. The old rule was that if a store sold regular Macs it couldn't sell Performas. That's changed and it's about time.

There has always been an abundance of Performa models, all slightly different and none customizable. The idea was that the various channels would sell slightly different models, thus forcing them to compete within their sales channel and not across sales channels. This kept them, supposedly, happier. What it meant, in reality, was that the best of a particular group (for example, the 578 in the 575, 577, 578 class) was often virtually impossible to obtain as people sought it out where ever it was.

Most power users only heard about Performas in passing because they bought their computers from more traditional sources where Performas were not allowed in the door or they needed more

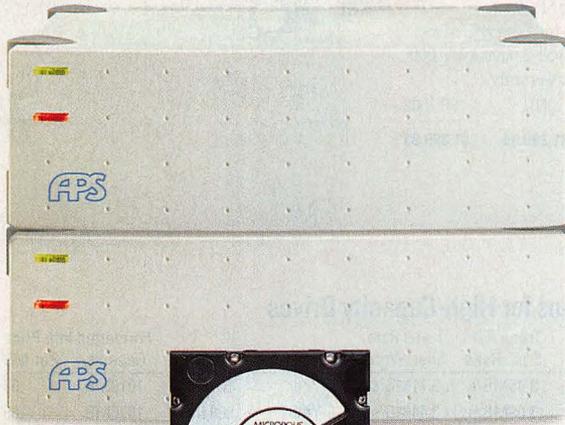
(Continued on page 24)



8
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Winter '95

Huge Capacity - Performance Champs!

These big drives deliver both size & speed!



APS MS 4.0

The new APS MS 4.0 is based on Micropolis' new 3243, 7200 RPM mechanism. Supporting extremely high transfer rates including nearly 6MB/sec during sustained writes and 3.6 MB/sec during sustained reads, the APS MS 4.0 is a true performance champ. With average seek times as low as 6.7 ms and average access times as low as 13 ms, it's nearly 4GB formatted capacity makes the APS MS 4.0 an attractive choice for heavy duty storage chores on any PowerMac or Quadra. Internal versions of the APS MS 4.0 can be mounted inside most Macs which can accommodate a 3.5" half-height drive and which provide adequate cooling. With a 650,000 hr. MTBF and a five-year warranty, external versions of the APS MS 4.0 in our SR 2000 enclosure are compatible with virtually all Macs produced since the SE/30.

ITEM	CODE	INTL	SR 2000
APS MS 4.0	M04	\$2,299.95	\$2,399.95



APS ST 4.0

WOW!... This is a remarkable hard drive powerhouse that's both capacity and performance champ. The APS ST 4.0 is the perfect drive to consider when you need an ultra-high capacity drive with blistering speed. Equally at home in both AV and non-AV applications, the APS ST 4.0 comes formatted in two, 2GB partitions. Based on Seagate's 7200 RPM ST15150 mechanism, the APS ST 4.0 delivers average access times as low as 14 ms and nearly unmeasurable seek times. With transfer rates as high as 3.69MB per second, the APS ST 4.0 is a great external match in our SR 2000 enclosure for your PowerMac or Quadra, though the APS ST 4.0 is externally compatible with the entire Macintosh line from the SE up. The APS ST 4.0 has a five-year warranty and a 500,000 hr MTBF.

ITEM	CODE	INTL	SR 2000
APS ST 4.0	G04	\$2,499.95	\$2,599.95



Drive Specifications for High-Capacity Drives

Drive	Avg. Seek Time (ms)	Trans Rate Sust. Read	Trans Rate Sust. Write	Warranty	MTBF	Formatted Capacity	Intl. Price Per MB
APS ST 4.0	4.7 ms	3.59MB/s	3.69MB/s	5-Year	500,000	4294MB*	.58
APS MS 4.0	6.7 ms	3.68MB/s	5.95MB/s	5-Year	650,000	4075MB*	.57
APS MS 4.0AV	6.7 ms	3.68MB/s	5.95MB/s	5-Year	650,000	4075MB*	.59
APS MS 9.0	N/A	3.55MB/s	5.82MB/s	5-Year	650,000	8500MB*	.40
APS MS 9.0AV	N/A	3.55MB/s	5.82MB/s	5-Year	650,000	8500MB*	.41
APS ST 9.0	N/A	3.49MB/s	3.69MB/s	5-Year	500,000	8673MB*	.44

The blue bar indicates the drive with the best cost per MB, the violet bar indicates the drive with the best transfer rates in this group.

*Formatted in multiple partitions.

Prices and specifications subject to change without notice



APS MS 9.0

Adding one more entry in the ultra high-capacity drive category, the APS MS 9.0 is so big that it must be divided into four partitions as it's shipped from our factory. An outstanding performer, that supports transfer rates as high as 3.6MB/sec (read) and 5.8MB/sec (write) as well as a nearly unmeasurable seek times and 16 ms average access times. Based on the 650,000 hr MTBF Micropolis 1991 mechanism, the APS MS 9.0 has a five-year

warranty. Internal installation of the APS MS 9.0 is limited to the Quadra 900, 950 and the original Mac II. External versions of this full height 5.25" form factor drive are compatible with most Macs produced since the SE/30. Like all our full-height drives, the APS MS 9.0 includes SCSI Sentry.

ITEM	CODE	INTL	EXTL
APS MS 9.0	M09	\$3,399.95	\$3,599.95

APS ST 9.0

Pack an astounding 8.5GB onto a single SCSI address with the new APS ST 9.0. Formatted as four 2GB partitions and one 481MB partition. For applications that require huge amounts of storage, these extremely high-capacity single-spindle drive products allow you to attach over 60GB of exceptionally high-performance storage to a single Mac-based server without having to resort to additional buses or cards. Fast and reliable, these Seagate-based drives deliver exceptional



access times as low as 13 ms, and transfer rates as high as 3.69MB per second. They carry a 500,000 hr MTBF

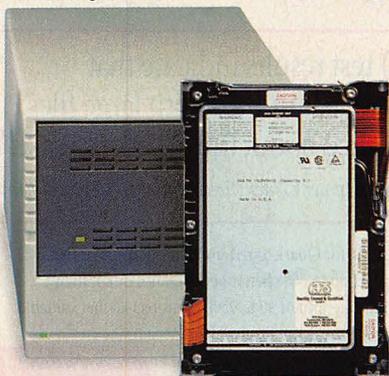
and are supported by a five-year warranty.

ITEM	CODE	INTL	EXTL
APS ST 9.0	G01	\$3,799.95	\$3,999.95



The Perfect Drive for Your Video Editing

APS MS 9.0AV with APS Full-Height Enclosure



APS MS 9.0AV

Optimized for the high-capacity demands of full frame video and audio capture, the APS 9.0AV is one of the best values available in the market. The 9GB size and industry-acclaimed cache implementation makes this the ultra-high-capacity choice for AV data capture. Thermal calibration is optimized for full frame video and audio capture, allowing thermal calibration only when the bus is free, eliminating the problematic jerky motion and lost sound typical of AV data capture performed with non-AV-specific drives. The APS 9.0AV delivers lower performance when used in non-AV applications. Rated at 500,000 hrs, the APS 9.0AV has a five-year warranty.

ITEM	CODE	INTL	EXT
APS 9.0AV	M08	\$3,499.95	\$3,699.95

APS MS 4.0AV

The APS MS 4.0AV is perfect for audio and video professionals who need high-capacity storage solutions. Caching is optimized for long-string data capture so the APS MS 4.0AV can deliver impressive performance in AV applications. In non-AV applications, performance is slightly slower than non-AV models. The APS MS 4.0AV, based on Micropolis' 3.5" 3243AV mechanism, has one of the best thermal calibration management schemes available. If your field is AV data capture, APS MS 4.0AV is a great solution.



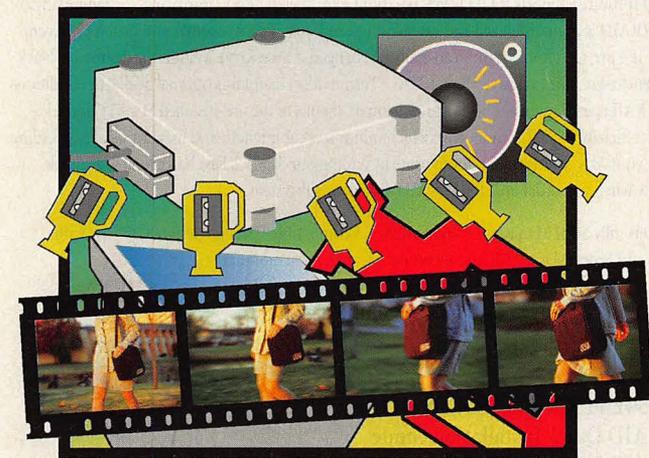
ITEM	CODE	INTL	SR 2000
APS MS 4.0 AV	M03	\$2,399.95	\$2,499.95

Does your computer do only "Part Time" AV work?

Drive-intensive AV tasks like direct-to-disk recording, CD mastering, and video playback demand lots of raw drive speed. Fortunately, most of APS' high-end drives have the performance to handle AV demands. Unlike dedicated AV drives, they perform just as well doing a wide range of other computer tasks. The result is flawless recording and playback sessions, but the drive still screams along at peak speed during the shorter reads and writes of non-AV applications. Look for this symbol when choosing a drive for use with AV and non-AV applications.



- APS D 1.0 (See page 6)
- APS D 2.0 (See page 7)
- APS ST 2.0 (See page 7)
- APS ST 4.0 (See page 8)
- APS ST 9.0 (See page 8)
- APS MS 4.0 (See page 8)
- APS MS 9.0 (See page 8)



The APS Carrying Case Makes Transporting Your Hard Drive Safe and Practical

The durable, padded exterior of the APS carrying case is designed to help protect our SR 2000 and SR 1000 series drives while the carrying handles and adjustable shoulder strap make it easy to carry your drive. Extra-spacious interior has separate compartments for cables, disks, manuals and power supply. Distinctive, striking APS graphic lets others know that you demand the finest in computer peripherals. (Also good for smuggling that embarrassing old Jasmine drive in and out of the office.)

See page 35.



Why AV-Specific Drives?

That was the question I asked when first presented the opportunity to include AV (audio-video) drives in our line, and a little explanation really helped. Capturing AV data on a hard disk drive requires different performance characteristics than are required of a hard disk drive used for regular, everyday computer use. AV data capture involves long strings of data being sent to and captured on the drive without interruption. All high-capacity drives must go through some sort of thermal calibration cycle so that as the drive operates, and operating temperatures elevate, minute changes in the relationship between the location of the data heads and the data platter surfaces is updated. This calibration insures that the drive can find data in the location where it is expected, insuring optimal performance and data integrity. Non-AV drives often enter a calibration cycle on a regular schedule regardless of what the computer and the drive happen to be doing. In the case of an AV application, a drive entering a thermal calibration cycle (T-cal) will miss recording data. This might be represented by video capture that drops a few frames in the middle of an action sequence, or an audio track that seems to skip a beat. AV drives handle T-cal by rescheduling or postponing it until such time that the drive is not actively capturing data.

Typical computer use involves many requests for relatively small amounts of data. Regular hard disk drives' caching (internal buffering) schemes are optimized for this rapid transfer of multiple small requests for data. AV drives, on the other hand, make relatively fewer requests for data, but the amount of data handled on any request is typically much larger. AV drives have modified caching schemes to best accommodate this type of use. Some drives are optimized specifically and exclusively for AV applications, and a significant performance loss is seen in non-AV applications. On the other hand, several manufacturers are now producing drives that perform equally well in both application environments. That's why you'll see some drives offered both in the AV section of this catalog and the non-AV areas.

The last difference you might notice in an AV drive product is the relatively high capacity. The capture of AV data requires huge amounts of storage for even a relatively short stretch of video or audio data. AV drives start at about 1GB capacity, with offerings in the market today exceeding 3GB and on their way to 9GB in the very near future.

9
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ARRAID

Finally, the Macintosh RAID system for the rest of us!



"Our (Photoshop 2.5.1) test results indicate that performance, on the average, doubled with large files. The students are very excited about the speed increase!"

— David S. Greenbaum (Computer Center Director, Kansas City Art Institute)

Stop waiting for Photoshop to rotate drawings, for Quark to redraw all those pages or that 3-D modeling program to render a new image. Get up to 30% better performance out of many Photoshop functions, an increase in video throughput of 90 to 95% or protect all that valuable company data on the mail system by mirroring the drive. From video professionals to systems managers and database administrators, ARRAID satisfies the needs of those who require the unsurpassed speed and fault-tolerant reliability of RAID high-speed disk array subsystems.

Perfect for AV Applications



ARRAID from APS is the turn-key Macintosh RAID solution. This straightforward, plug-and-play high-speed disk array subsystem appears on the Macintosh desktop just like a regular drive and requires no special training to use. Behind the scenes, though, special software combines multiple drive mechanisms into a single volume called an array. Think of this enhanced drive configuration as the reverse of partitioning. Instead of dividing a single drive into multiple volumes, an array combines multiple drive mechanisms into a single volume.

One of the best things about ARRAID disk array subsystems from APS is that you can have both RAID 0 and RAID 1 partitions working at the same time on the same array!

ARRAID software supports RAID Levels 0 (striping, for speed) and 1 (mirroring, for redundancy). Every ARRAID is pre-configured and extensively tested. Just plug it together and turn it on. Even the SCSI IDs are set (although they can easily be changed if necessary). Within the distinctive black SR2000 enclosure, our exclusive Digital Active Termination maintains optimal SCSI bus conditions for peak RAID performance. The footprint is small, thanks to the pre-installed StackIT and APS' compact, efficient SCSI "C" connector, which minimizes cable length and maximizes data shielding. Enhance your Mac's performance even more by adding our SCSI-2/Fast NuBus card, available optionally when you order an APS ARRAID disk array subsystem.

ARRAID is fully SCSI Manager 4.3 and System 7.5 compatible. Though designed for use with Quadras and PowerMacs, ARRAID is compatible with most modular Macintoshes. ARRAID disk array subsystems are pre-configured as either RAID Level 0 or Level 1, and come complete with:

- StackIT Connectors
- Power Cords
- 25 x 50 and 50 x 50 SCSI Cables
- ARRAID Quick Installation Guide
- ARRAID User Manual
- ARRAID Manager Software
- 5-Year Warranty
- APS' Award-winning Technical Support



Available in a variety of capacities, ARRAID subsystems offer performance and simplicity. When speed or reliability is the issue, ARRAID is the solution.

- SCSI 2 and SCSI Fast
- Employs High Spindle Speed Drive Mechanisms
- PowerMac Compatible
- APS' Award Winning Engineering and Customer Service
- Featuring: Digital Active Termination or DATerm
- Reduce SCSI Cable Mess with the SR 2000 StackIT
- 5-Year Warranty
- 30-Day No-Hassle Money Back Guarantee

ARRAID from APS Technologies is the high performance, easy-to-use, Disk Array storage solution. ARRAID provides the power, reliability and plug-and-play simplicity Macintosh users expect.



10

Outside the US & Canada

1-816-920-4109

Winter '95

Striped ARRAID (RAID Level-0)				Mirror ARRAID (RAID Level-1)			
Capacity GB	Spindle SPEED	PRICE	CAT #	Capacity GB	Spindle SPEED	PRICE	CAT #
2	5400 RPM	\$1,599.95	R00254	1	5400 RPM	\$1,599.95	R10154
4	5400 RPM	2,899.95	R00454	2	5400 RPM	2,899.95	R10254
4	7200 RPM	3,299.95	R00472	2	7200 RPM	3,299.95	R10272
8	7200 RPM	4,999.95	R00872	4	7200 RPM	4,999.95	R10472
16	7200 RPM	9,999.95	R01672	8	7200 RPM	9,999.95	R10872

ARRAID Fast SCSI Card*

CALL FOR INFORMATION

*Available only with the purchase of an ARRAID Disk Array Subsystem.

Upgrade to The New Standard!

Magneto-optical is one of the most stable forms of data storage



The APS 230 MO

APS 230 MO

As this catalog goes to print, new 230MB MO mechanisms are becoming available in the market. Now you have the ability to pack an incredible 230MB onto a small 3.5" MO cartridge that's acknowledged to be among the most stable forms of data storage available in the market. The new APS 230 MO is based on the same Olympus/Epson platform as the APS 128 MO. The fastest mechanism on the market,

The APS 230 MO reads, writes & formats 128 MO cartridges!

the APS 230 MO uses its 4200 RPM spindle speed to deliver impressive 28 ms average seeks, sustained reads of 1.4MB/sec and sustained writes of 480K/sec. With a one-year warranty and a 50,000 hour MTBF, this is the workhorse magneto-optical solution to consider when you're ready to step up to the capacity and reliability of the new 230MB MOs.

ITEM	CODE	INTL	SR 2000
APS 230 MO	L01	\$799.95	\$899.95

APS 1.3GB MO

Based on Sony's F521 5.25", 1.3GB mechanism, the new APS 1.3MO is just what you need to store those huge Photoshop and Quark files. This ISO 9000 compliant drive delivers impressive MO performance with sustained reads as high as 1.3MB/min and sustained writes around 400K/min. With an average seek of 35 ms, the APS 1.3 MO formats to just under 622MB on each of its two data surfaces*. Now you can keep dozens of GBs of data right at your fingertips - available for rapid access, just insert the cartridge you need.

ITEM	CODE	SR 2000
APS 1.3 MO	Y01	\$1,999.95

\$1,999⁹⁵



The APS 1.3GB MO

1.3 MEDIA	Best Value!		
	1	10+	CAT#
SONY (1024KB/S)	\$109.95	\$104.95	40565
MAXELL (1024KB/S)	109.95	104.95	40564
MAXELL (512KB/S)	109.95	104.95	40563



3.5" Magneto-Optical Media

We've tried everyone's MO media. Some are really inexpensive. Even though MO technology is generally considered the most reliable of all media types, the cheapest MO media seems to cause consistent and repetitive problems. MO media must have adequate reflectivity in order to allow data storage and (more importantly) data retrieval. It's this problem that has caused us to standardize on two brands of MO media - Maxell and 3M.

Maxell, the manufacturer of what we feel

is the best media available across the board, doesn't let us down when it comes to MO. Their reputation and guarantee more than justify a little more spent on the peace of mind that real data safety provides.

3M's new 128MB MO media delivers outstanding reliability. Its reflectivity (one of the features of MO media required for proper data operations) is outstanding. Whatever your choice, you know you'll be getting the best.

ITEM	1-4	5-19	20+	CAT.#
UNFORMATTED				
128 MO (MAX.)	\$34.95	\$33.95	\$28.95	40538
128 MO (3M)	35.95	34.95	29.95	40535
230 MO (MAX.)	45.95	44.95	39.95	40566
230 MO (SONY)	45.95	44.95	39.95	40561

PREFORMATTED				
128 MO (MAX.)	39.95	38.95	33.95	40558
128 MO (3M)	40.95	39.95	34.95	40555
230 MO (MAX.)	50.95	49.95	44.95	40568
230 MO (SONY)	50.95	49.95	44.95	40569

When to Buy Into a New OS

(Continued from page 6)

The smaller publishers, the innovators who got no help (and often scorn), rushed to fill the void. But first they had to acquire development tools, development expertise, and they had to do it on their own. Developing good software doesn't happen overnight.

Small, highly focused programs typically start to appear 1 to 2 months after the new system is released. The more complex, compelling products take 6 to 12 months on average.

It has always taken, and still takes, 9 to 12 months for a mature and reasonably complete body of software to be released for a new operating system. The only exception I can recall in the last 10 years was the original Mac OS release. In that case the process took longer.

Thus, if productivity is your goal, and there's no driving reason to upgrade, wait 9 months to a year after a new OS is released before moving to it. Unless, of course, you're like me and not particularly risk-averse. Then you buy in on Day 1 and don't complain when the arrows hit your back.

11
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

APS DAT Drives

Glossary

Access Time the amount of time (hopefully, in milliseconds), that it takes a hard disk drive to make the requested information available to be sent to the computer. It includes actual seek time, rotational latency and command processing overhead time. Access time is CPU (central processing unit) independent, meaning that access time is the same for a disk drive, whether it is attached to a computer or not.

Allocation Block Size a minimum divisible amount of a disk space. For example, if you create a 1K file, the allocation block size is the amount of space it will take up on the hard drive. The larger the allocation block size for the disk, the larger the file.

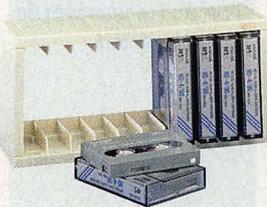
Asynchronous, -ly happening at the same time. It refers to data transfers as a background operation while you are able to use your computer for other tasks.

Backup is the most important word in the list. It means to copy ones data onto a different (and safe) storage device from where it can be retrieved at some later time.

Boot, -ing, -ed in order to operate, your Macintosh needs to read into memory, some special files (called System Files). This happens automatically whenever you turn your Macintosh on and is called booting. In order to do this properly, your Macintosh needs to have access to those special files - they are stored in the System folder on either your hard disk or a floppy disk.

Boot Drive this is the hard disk (or floppy) that contains the special system files required to make your computer boot.

(Continued on page 13)



Micro-Data Cubes

Micro-Data Cubes are the economical and compact way to keep your backup tapes organized, yet easily accessible. Three different sizes accommodate most popular tape cartridges.

ITEM	PRICE	CAT. #
4MM DAT STOR	\$9.95	42265
8MM DAT STOR	9.95	42262
DC300/600 STOR	9.95	42260

12
800-354-1213
24 Hours a Day, 7 Days a Week
Winter '95



DAT is widely acknowledged to be the most capable backup option for serious use. The cost of media is extremely low, encouraging multiple backup copies, the reliability is exceptional, and DATs are extremely easy to use.

speeds. HyperDAT can't overcome the bottleneck created by a network's slow data transfer rate, but the HyperDAT's immense single-tape capacity is still a benefit in network environments. All APS DAT products can be used on most PCs too. APS maintains a whole line of PC SCSI host adapters and DOS/Windows backup software, with drivers.

DDS & DDS-2 DAT Tapes

Though audio tapes may look the same on the outside, the quality and dependability of the media just isn't the same. If it makes sense to back up your data, don't make a \$2 or \$3 mistake. Use only premium, data-grade tapes for all your backups. Our DAT tapes from Maxell and 3M are among the best available anywhere. Both these names, long respected in the field of data recording technology, use the best tape stock combined with the best quality coatings available. (120-meter DDS-2 tapes should not be used with the APS DAT.)



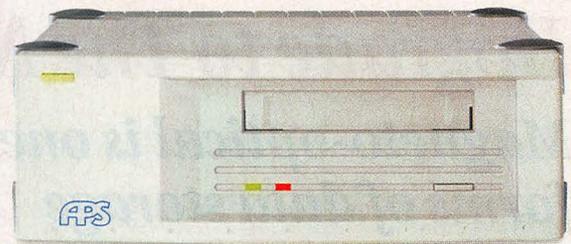
ITEM	Best Value!			
	1-4	5-19	20+	CAT. #
120-M (DDS-2)	\$19.95	\$18.95	\$17.95	42090

Maxell DAT Tapes

ITEM	1-4	5-19	20+	CAT. #
60-M	\$9.95	\$8.95	\$7.95	42010
90-M	11.95	10.95	9.95	42015
120-M (DDS-2)	22.95	21.95	20.95	42018

3M DAT Tapes

ITEM	1-4	5-19	20+	CAT. #
60-M	\$9.95	\$8.95	\$7.95	43210
90-M	11.95	10.95	9.95	43215



APS DAT in our SR 2000 enclosure.

APS DAT



The APS DAT backs up data on economical 60- or 90-meter DAT tapes at a rate of up to 9.2MB per minute. With incredible reliability exceeding that of some hard disk products (less than one hard data bit error in 1,000,000,000,000), APS DATs are an incredible value for single workstation backup or for backup of an entire network (using Retrospect Remote 10-packs). Pack up to 1.3GB of data on a single 60-meter tape or an unbelievable 2GB of data on a 90-meter tape cartridge! At \$12 or \$16, respectively, media cost and reliability is what makes the APS DAT the choice of computer professionals everywhere.

ITEM	CODE	INTL	SR 2000
APS DAT	96	\$749.95	\$799.95

APS DAT Drives: One is right for your backup needs.

DAT is widely acknowledged to be the most capable backup option for serious use. The cost of media is extremely low, encouraging multiple backup copies, the reliability is exceptional, and DATs are extremely easy to use. But the biggest advantages of DAT are capacity and speed. The APS DAT is designed for single-session backups of less than 1GB of stored data. APS HyperDAT is suited to backing up even larger amounts of data at incredible

LabelOnce™ Reusable Media Labels

Finally, you can erase or edit label text anytime and never change labels. It's simple with LabelOnce, the fast, easy, environmentally friendly alternative to layers and layers of standard paper labels.

Small Media Vault

layers and layers of standard paper labels. LabelOnce works with a permanent, oil-based felt tip marker that writes smoothly and dries quickly. To erase or revise text, just use the non-smear vinyl eraser.

ITEM	PRICE	QTY.	CAT. #
DAT TAPE STARTER	\$8.95	10	43060
DAT TAPE REFILL	8.95	20	43065

(See page 21 for additional LabelOnce labels.)

Media Vault

Backup media and hardware are only one part of the "backup equation." Off-site storage is a basic tenant of a solid backup scheme, but so is hazard protection. These media vaults from one of the oldest names in the business - Sentry - protect your valuable magnetic media from danger in the event of a fire or explosion.

ITEM	PRICE	CAT. #
SMALL MEDIA VAULT	\$149.95	49150
MEDIUM MEDIA VAULT	249.95	49152
LARGE MEDIA VAULT	699.95	49154

Glossary

(Continued from page 12)

Boot Partition This is the partition on the boot drive that contains the special system files required to make your computer boot.

Bus In computer jargon, bus is the path or system for moving data from one part of a computer to another. Specifically, it is the part of a chip, circuit board or interface that is designed to send and receive data.

Cache, -ing This is an area of RAM set aside to store frequently used data from your hard disk. Hard drives are accessed much more slowly than RAM, therefore, storing frequently used data in RAM can speed up your data access substantially.

CD, CD ROM Compact Disk (Read-Only Memory). This is the disk which is inserted into its matching CD ROM drive, commonly containing music, computer data, or even some combination of the two.

CPU Central Processing Unit.

DAT (Digital Audio Tape) uses a magnetic media to store digital information at a low cost per megabyte. Tapes are measured in length: 60-, 90- and 120-meter.

DDS (Digital Data Standard) Two definitions: Refers to a higher grade of DAT equipment used for computer storage instead of audio. Also, allows interchangeability between different manufacturers' mechanisms.

DDS-DC/DDS-2-DC A hardware compression algorithm used in data storage DAT drives.

(Continued on page 16)

Prolong The Life of Your DAT Drive... Clean Every 8 Hours of Use!



Head Cleaning Kits

Head cleaning tapes for TEAC 155MB units and DAT units are easy to use. Just insert the tape cartridge (wipe the head with the swab for TEACs) and the tape head is clean in a few seconds.

ITEM	PRICE	CAT.#
TEAC 155	\$19.95	41025
DAT	13.95	41020
DC-2000	29.95	40991

13
800-354-1213
24 hour FAX 1-816-483-3077

Prices and specifications subject to change without notice

APS is the DAT Resource!



APS HyperDAT in our SR 2000 enclosure.

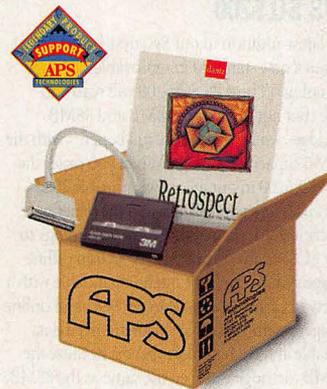
APS HyperDAT™

Delivering incredible backup speeds as high as 28MB per minute, this DDS-2 compatible backup system can pack an incredible 10GB on a single 120M DAT tape! The new standard for high-capacity, high-speed Mac backup, the APS HyperDAT is compatible with both standard DDS and DDS-DC DAT units (like the APS DAT) and other DDS-2 compatible drive units. In our SR 2000 enclosure with D_ATerm, the APS HyperDAT comes with Retrospect by Dantz Development, one of our premium SCSI cables and a 120-meter DDS-2 certified DAT tape.

ITEM	CODE	INTL	SR 2000
HYPERDAT	D01	\$949.95	\$999.95

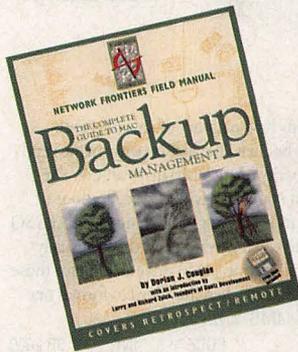
Every APS DAT Comes With All This Great Stuff!

Retrospect, 1 Free DAT Tape, a Premium 25 x 50 SCSI Cable & Power Cord and APS' Legendary Support



1994
Macworld Magazine
World Class Award
Alternative Storage
The APS DAT Series

Macworld's 1994 World-Class Award for Alternative Storage goes to APS Technologies.



The Complete Guide to Mac Backup Management covers:

- How to decide what to backup—and when
- Reduce network overhead and optimize backup performance
- Set up an effective network backup topology
- Understand how to choose and use backup hardware
- Proper selection, care, feeding and storage of backup media
- Backup or archive—why the difference could cost you your job.
- How to restore, when to restore and why...
- Priceless, detailed instruction on getting the most out of Dantz' Retrospect—material not available anywhere else!
- Santorini's Server Sleuth Software—a \$99 Value!
- Valuable electronic form templates on disk

"Whether you back up once a day or once an hour doesn't make a difference if you can't restore the information in a timely manner." Learn how to backup and restore properly with The Complete Guide to Mac Backup Management.



DAT Starter Kit



Start your backup system with an APS DAT Drive and a DAT Starter Kit.

DAT STARTER KIT	PRICE	CAT#
90M DAT STARTER KIT	\$89.95	82032
120M DAT STARTER KIT	139.95	82034

Our DAT Starter Kits include:

- 5 Maxell 90 or 120m tapes
- 1 DAT head cleaner
- 1 4mm DAT cube
- 1 LabelOnce DAT starter kit
Includes pen, eraser and 10 DAT labels

Get everything you need to start backing up across a network with your new APS DAT. Get started right, get everything you need to go with your new APS DAT.

DAT Network Backup Starter Kit



DAT NETWORK BACKUP STARTER KIT	PRICE	CAT#
90M DAT NETWORK BACKUP STARTER KIT	\$299.95	82043
120M DAT NETWORK BACKUP STARTER KIT	399.95	82045

Our DAT Network Backup Starter Kits include:

- 10 DAT tapes (90 or 120M)
- 1 DAT head cleaner
- Retrospect Remote 10-pack
- The Complete Guide To Mac Backup Management
- 1 4mm DAT storage cube
- 1 LabelOnce DAT starter label kit.

APS Removable Media Drives

All APS SyQuest Drives Are PowerPC Mac Compatible!

For your SyQuest-based drive...

APS offers you a choice in cartridges, choose either SyQuest brand cartridges or select SyQuest compatible cartridges from Iomega. Which cartridge is right for you? It's easy, choose from the table below

Cartridge	Form. Cap.	SQ 5110C	SQ 5200
SQ-400 Cart. (44MB)	42MB	Read Write	Read Write
SQ-800 Cart. (88MB)	84MB	Read Write	Read Write Format
SQ-2000 Cart. (200MB)	194MB	N/A	Read Write Format

Cartridge	Form. Cap.	SQ 3105	SQ 3270
SQ-310 Cart. (105MB)	100MB	Read Write Format	Read Write
SQ-327 Cart. (270MB)	255MB	N/A	Read Write Format

All of our cartridges come unformatted. For just a few extra dollars you can get preformatted cartridges for Macintosh filled with System 7.01, our choice selection of publicly-distributable software and mostly, saves you a lot of unproductive time... Order your cartridges preformatted. SyQuest brand cartridges carry a one-year limited replacement warranty, Iomega brand cartridges carry a five-year limited replacement warranty.

SyQuest Technologies says of the APS SyGUARD "this will prolong the life of your SyQuest drive. It's a nominal investment - SyQuest drive owners should just use it!"

14
800-354-1213
24 Hours a Day, 7 Days a Week
Winner '95

APS SQ 5200
SR 2000 Enclosure



APS SQ 5200

The latest addition to our SyQuest-based drives defines a new standard in removable cartridge technology! The APS SQ 5200 will read and write (but not format) to 44MB and 88MB cartridges while offering the full benefits with the 200MB capacity cartridge. When you order the APS SQ 5200 in our award winning SR 2000-style enclosure you will also add the benefits of our critically acclaimed DATerm technology to your SCSI chain. Now you can have an offline storage system that's infinitely expandable with a variety of cartridge capacities, as well as an online storage system that makes your archived data available at fixed hard disk speeds. Because the 200MB cartridge is priced the same as the 88MB, we think you'll agree that the APS SQ 5200 is the best value in removable cartridge drives ever!

ITEM	DRIVE CODE	INTL	SR 2000
APS SQ 5200	S02	\$439.95	\$499.95



Save Your SyQuest With the APS SyGUARD™

There are an unbelievable two million, 5.25" (44MB, 88MB, & 88c) SyQuest-based drives out in the market today, all sucking dirty, dust laden, contaminated air through them every minute that they're running. Knowledgeable industry sources have suggested that this, as much as any single factor, has been related to concerns about 5.25" SyQuest data reliability. In response to this concern, the U.S. Department of Defense requested that SyQuest design a locking dust seal for the front of 5.25" SyQuest drives to bring them up to "military specification" for airborne contamination. APS brings that data saving technology to you in the form of the APS SyGUARD. The APS SyGUARD is a rugged, plastic dust and contamination guard fitted with a precision gasket lock that fits nearly all 44, 88 and 88c mechanisms, regardless of OEM manufacturer.* Designed to prolong mechanism life by controlling dust movement into the drive, the



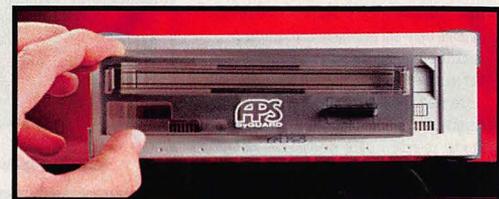
APS SQ 5110C
SR 2000 Enclosure

APS SQ 5110C

Available in our SR 2000-style enclosure, the APS SQ 5110C is the standard in removable cartridge technology. Slightly longer than our regular SR 2000 drive enclosure, the SR 2000 cartridge-drive version features DATerm, Digital Active Termination, and an external, in-line, 35 watt, low profile, auto-switching power supply. Allowing you to read and write to low cost 44MB cartridges (you cannot format 44MB cartridges), as well as higher capacity 88MB cartridges, the APS SQ 5110C may be just the thing for those

who already have a library of data on 44MB cartridges but need the higher performance and added capacity of an 88MB drive unit. We've found that many sites with large collections of 44MB cartridges prefer to upgrade to the APS SQ 5110C unit when they add new drives, usually keeping at least one 44MB drive around for those infrequent times when they need to format one of the old 44MB cartridges.

ITEM	CODE	INTL	SR 2000
APS SQ 5110C	74	\$339.95	\$399.95



APS SyGUARD may be one of the best investments you can make to protect your expensive data and SyQuest-based equipment.

*Works with any 5.25" 44, 88 or 88c model SyQuest drive with a completely exposed mechanism face panel. Specify when ordering for SyQuest drives in SR 2000 enclosure.

ITEM	PRICE	CAT. #
APS SYGUARD	\$8.95	40500
APS SYGUARD (3 PK)	24.95	40501
APS SR 2000 SYGUARD	8.95	40505

APS Removable Media Drives

APS SyQuest Drives Include **FREE** Cartridge

APS SQ 3270
SR 2000 Enclosure



APS SQ 3270, the next step in removable media, packs more MBs in a smaller package, yet delivers real fixed-platter drive performance!

APS SQ 3270
SR 1000 Enclosure



Now, get the convenience and portability of our new SR 1000 enclosure with your APS SQ 3270.

APS SQ 3270

The APS SQ 3270 (270MB) removable cartridge drive is available in our SR 1000 and SR 2000 enclosures. With the same attention to quality as our SR 2000 hard disk drives as well as critically acclaimed Digital Active Termination, the APS SQ 3270 in our SR 2000 enclosure is absolutely the best 3.5" removable magnetic cartridge drive available in the market today. Packing an incredible 255MB onto a small 3.5" cartridge that's only a little thicker than a couple of floppies, the new APS SQ 3270 is the high-performance, transportable storage winner. With sustained transfer rates above 1.7MB per second and average seek times as low as 13.5 ms, the APS SQ 3270 is the first removable cartridge drive that deliver performance comparable (or superior) to many standard hard disk drives!

The APS SQ 3270 is also available in our SR 1000 enclosures. Compact, lightweight and stylish, the APS SQ 3270 in our SR 1000 with Digital Active Termination is the perfect accessory for your PowerBook office.

ITEM	CODE	SR 1000	SR 2000
APS SQ 3270 (270MB)	S01	\$529.95	\$499.95



NEW FROM APS

Start out right with an APS SyQuest Drive and a APS Starter Kit. Each kit comes with 5 SyQuest compatible 44MB or 88MB cartridges, one APS SyGUARD, one LabelOnce starter kit and one LabelOnce SyQuest refill kit.



SyQuest & Compatible Cartridges

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
UNFORMATTED				
SQ-400 (44MB)	\$59.95	\$58.95	\$57.95	40510
IO-44 (44MB) SyQuest Compatible	49.95	48.95	47.95	40509
SQ-800 (88MB)	79.95	78.95	77.95	40520
IO-88 (88MB) SyQuest Compatible	69.95	68.95	67.95	40519
SQ-2000 (200MB)	89.95	87.95	86.95	40560
SQ-310 (105MB)	59.95	57.95	56.95	40540
SQ-327 (270MB)	69.95	68.95	67.95	40550
PREFORMATTED*				
SQ-400 (44MB)	\$65.95	\$64.95	\$63.95	40512
IO-44 (44MB) SyQuest Compatible	55.95	54.95	53.95	40508
SQ-800 (88MB)	85.95	83.95	82.95	40522
IO-88 (88MB) SyQuest Compatible	75.95	74.95	73.95	40518
SQ-2000 (200MB)	95.95	93.95	92.95	40562
SQ-310 (105MB)	65.95	63.95	62.95	40542
SQ-327 (270MB)	75.95	74.95	73.95	40552

*Preformatted cartridges are formatted with the current version of APS PowerTools and are available preformatted for Macintosh only.

SyQuest 270MB Removable Drive

by Steven Bobker

SyQuest made their name with good removable drives. The originals only held 42MB per cartridge and were, by today's standards, slow and expensive. Still, they filled a huge need, both to archive rarely used material and to transfer large (typically DTP) files. You'll still find one of these drives or one of its newer cousins in every service bureau.

Two years ago SyQuest introduced a new, much faster, and much more reliable smaller cartridge (3.5-inch versus 5.25 inches of the 44s and 88s). In doing so they also managed to hugely increase the capacity. The first of the new size was called a 105 and held just about 100MB. The newest are called 270s and hold about 253MB when formatted.

The 270s are as fast as many equivalently sized hard disks and can be used as boot drives with no problems. Their transfer rate is about two thirds that of the best equivalently sized drives and never seems to slow me down.

The high drive speed and transfer rate make these drives and cartridges excellent for backup (though real, serious backup requires tape). You can store a System folder, backup software and files, and enough applications and data to get yourself back into business instantly should disaster strike.

The high-capacity comes at very reasonable cost. Preformatted cartridges (a very fine idea) are \$75, dropping the cost per meg of storage to under 30¢.

That's way below the cost per meg of even the hugest 9-gigabyte drives. You simply can't beat the price and the instant, no special software required retrieval convenience for the archiving of important material.

Installation is as easy as can be. These drives are just another SCSI device. I particularly like the drive in the very portable, AC-only SR-1000 case.

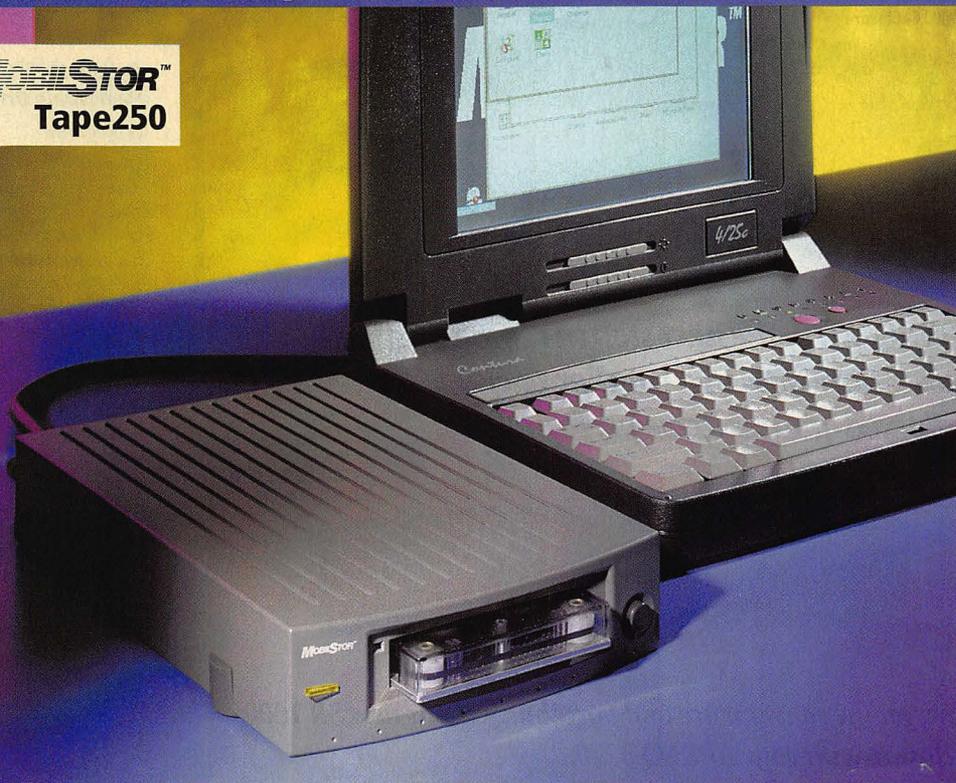
APS is Your SyQuest & Compatible Media Resource!

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Prices and specifications subject to change without notice

PC Parallel Port Compatible

MOBILSTOR™ Tape250



Includes
One-Step™
by MobilStor

MOBILSTOR Tape250

MOBILSTOR Tape250 is a lightweight, portable tape drive that provides up to 250MB of storage on a standard DC2120 tape cartridge. MOBILSTOR Tape250 is packaged in the SR 1000 enclosure, is QIC-80 compatible and ships complete with One-Step DOS and Windows backup software, universal power supply, parallel cable, power cord and two-year warranty.

ITEM	CODE	PRICE
MOBILSTOR TAPE250	M1250	\$229.95

Media Kits

MOBILSTOR Starter Kit

ITEM	Best Value!	CAT. #
SONY DC-2120-3 PACK (Preformatted)	\$34.95	82060

MOBILSTOR Data Saver Kit

ITEM	Best Value!	CAT. #
SONY DC-2120-3 PACK (Preformatted) & Read Right Cleaning Kit	\$49.95	82062

Glossary

(Continued from page 13)

DDS-2 Second generation of DDS. Allows the use of 120-meter DDS-2 tapes to attain more storage as well as faster data recording.

Disk Cache A term used for RAM (random access memory) that is incorporated on a hard disk drive's controller card. The RAM is used as a place for data to wait while the computer or drive becomes ready to use it. Use of a disk cache generally increases the performance of a drive. The current generation of drives typically segment the cache to optimize it for both reading and writing operations.

Driver, Device Driver This is a special program that instructs your Macintosh how to communicate with an electronic device. Your Macintosh needs one of these for each hard disk connected. When told to install a driver, APS PowerTools will put one of these in a special partition on your hard disk.

Format, -ting, -ted This is a process where a hard disk is prepared to record data. In this process, the hard disk writes special information onto its own recording surfaces in order to divide the surfaces into areas (see Blocks) that are ready to accept user data. Since performing this operation causes all current user data stored on the hard disk to be lost, this is an infrequent operation that usually only happens at the factory that created the hard disk. It is unusual that something happens to a hard disk that requires this operation to be performed by the end user.

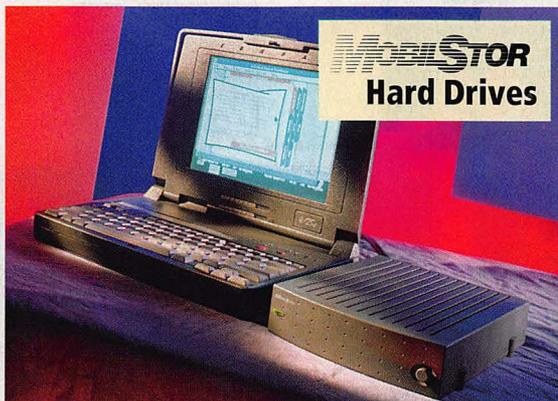
(Continued on page 17)

16

Outside the US & Canada

1-816-920-4109

Winter '95



MOBILSTOR 340, and 520

MOBILSTOR hard drives utilize 2.5" drives in our compact SR 1000 enclosure. They're battery-operated and include an external power supply, device driver software, NiCad battery and a one-year warranty. Available in 340MB and 520MB for all your data storage needs.

ITEM	CODE	PRICE
MOBILSTOR 340	M2340	\$399.95
MOBILSTOR 520	M2520	\$599.95

MOBILSTOR

Product Specifications

Machine Type:	IBM Compatible PC, XT, AT, 386, 486, Pentium, PS/2
Operating Systems:	MS DOS Version 3.1 or Above
Port:	Standard IBM Compatible Parallel Port or EPD
Interface:	PC Parallel Port Interface and QIC-80 Compatible
Approvals:	FCC Class B

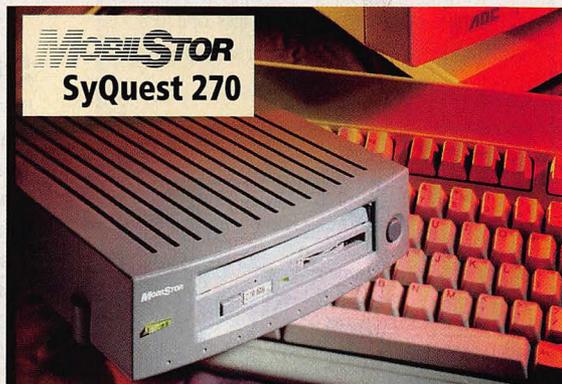


MOBILSTOR Media Tape250

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
SONY DC-2120	\$14.95	\$12.95	\$11.95	42092
3M DC-2120	16.95	15.95	14.95	43234
MAXELL MC-2120	15.95	14.95	13.95	42034

MOBILSTOR SyQuest Media

ITEM (UNFORMATTED)	Best Value!			CAT. #
	1-4	5-19	20+	
SQ-327 (270MB)	\$69.95	\$68.95	\$67.95	40550



MOBILSTOR SyQuest 270

MOBILSTOR SyQuest 270 is a removable cartridge hard drive that packs 270MB on a single SyQuest cartridge. It is housed in the compact, highly acclaimed APS SR 1000 enclosure. MOBILSTOR SyQuest 270 delivers performance comparable (or superior) to many standard hard disk drives offering data transfer rates around 15MB per minute and average seek times as low as 13.5 ms. It ships with a universal power supply, device driver software, parallel cable, power cord and a one-year warranty.

ITEM	CODE	PRICE
MOBILSTOR SYQUEST 270	M6270	\$599.95

True Mobility. No compromise.

PC Parallel Port Compatible

Finally! DOS Drives That Meet Mac Users' Expectations!

For years, people just assumed that peripherals for DOS laptops had to be either proprietary devices that only worked with a particular make or model, or clumsy, complicated, unattractively repackaged desktop hardware. APS is used to competing in the Macintosh market, where



elegant, "insanely great" products are the norm. When I saw what was offered for DOS machines, I knew we could do better. From now on, you can stop making excuses for your DOS hardware. APS' MOBILSTOR products are just as stylish and functional as our Macintosh line. Everybody who gets a chance to use our MOBILSTOR products—even the die-hard Mac freaks around the APS offices—can't help but say "Wow, this is slick!" When was the last time you heard that about a DOS machine?

Introducing MOBILSTOR, a full line of external hard drives, portable tape drives, portable CD ROMs and SyQuest removable hard drives. MOBILSTOR products expand any PC simply by plugging into the parallel port. MOBILSTOR installs instantly anywhere; no slots, no boards, no switches or tools. And yes, you can take it with you. MOBILSTOR products are so portable they can be conveniently moved from PC to PC—one model fits all PC-compatibles, regardless of CPU speed. Now DOS and Windows users can have plug-and-play convenience without compromise of performance or price.

MOBILSTOR CD

MOBILSTOR CD is a dual-speed CD ROM drive with an extremely fast access at 320 ms. It transfers data at 300KB per second and utilizes a CD drawer rather than a caddy. MOBILSTOR CD ships with a universal power supply, device driver software, parallel cable, power cord and a one-year warranty.

ITEM	CODE	PRICE
MOBILSTOR CD	M5000	\$299.95



MOBILSTOR Carrying Case

Once you get a MOBILSTOR, you'll never want to be without it. But it's a rough-and-tumble world out there. Keep your MOBILSTOR drive looking and working like new, and at the same time make it even more convenient to carry around with your laptop PC. Made of high-quality nylon, it will give years of service. Just like your MOBILSTOR.

ITEM	PRICE	CAT.#
MOBILSTOR CARRYING CASE	\$34.95	42762

Glossary

(Continued from page 16)

Formatted Capacity The capacity of a disk drive after it is formatted for a particular type of computer or computer system. By writing sector headers, boundary definitions, timing information and driver partitions, the formatted capacity of a drive may vary greatly depending on the computer system. The variation ranges from dozens to hundreds of megabytes.

Hard Disk, Drive, Hard Disk Driver Sometimes referred to as a drive, it is a device that is used to store data. It consists of a housing, a motor, a recording mechanism, and one or more recording surfaces. The data is stored magnetically on the recording surfaces which are at least one side of a rigid spinning disk.

Initialize, -ed, Initialization After a hard disk (or other storage device) is formatted and partitioned, some special data needs to be written to it that helps the Macintosh to create files and save data. The process is called initialization. This process, like formatting, causes all user data on the storage device to be lost.

Macintosh Volume After a hard disk is initialized, the Macintosh will recognize it as a valid area to save data and files. It is henceforth called a Macintosh volume.

Media The data that you write to a hard disk is stored on a magnetic surface inside the hard disk enclosure. The surface that the data is written to is called the media.

MTBF or Mean Time Between Failure A statistical term relating to reliability as expressed in power on hours (p.o.h.). It was originally developed for the military and can be calculated several different ways, yielding substantially different results. It is common to see MTBF ratings between 50,000 and 300,000 hours for hard disk drive mechanisms, which, if you do the math, might lead you to conclude that the specification promised between 5 and 30 years of continuous operation. This is not the case! The specification is based on a large (statistically accurate sampling) number of drives in one place, running continuously and the rate at which failure occurs. MTBF is not representative of how long your drive, or any individual drive is likely to last, nor is it a warranty, but rather, of the relative reliability of a family of products.

Overshoot A rise in SCSI data line voltage above SCSI specification.

(Continued on page 18)



17
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Exclusive Digital Active Termination Technology

Exclusive DAterm Fulfills the Promise of "Plug & Play" SCSI

Glossary

(Continued from page 17)

Partition, Partition Map After formatting, your hard disk is not yet ready to store files. It must be divided up into sections that will contain special information required for your Macintosh to operate and other sections that will contain your files. This process of dividing up your hard disk is called partitioning. A partition is just one section of the hard disk that will contain either special data put there by APS PowerTools or your own files and data.

Price Per Megabyte Calculated by dividing the price of the internal version of the drive by the formatted capacity in megabytes.

PowerPC A new computer architecture based on the PowerPC RISC (Reduced Instruction Set Computer) processor developed by Motorola. Positioned as competition to Intel's Pentium chip, PowerPC is being incorporated into new computers from Apple and IBM (among others), including the recently released Power Mac 6100, 7100 and 8100. Computers incorporating RISC architecture can process more commands in a shorter amount of time than an older design machines incorporating CISC processing architecture (all Macs prior to Power PC).

(Continued on page 19)



1993 MacUser Editors' Choice Award Winner
APS SR 2000 Case
 "Best New Storage Product"

SCSI Lexicon

Overshoot - A rise in SCSI data line voltage above SCSI specification.

Undershoot - A drop in SCSI data line voltage below SCSI specification.

Ringing - Describes what happens in undershoots and overshoots, describes the overall phenomena of impedance mismatching.

Long build up - Impedance mismatch due to an over damp situation.

18
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24 Hours a Day, 7 Days a Week
 Winter '95

Figure 1 (with DAterm)

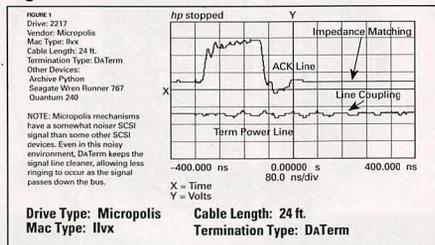
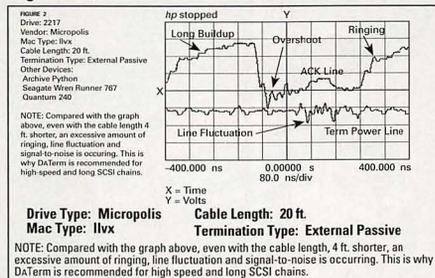


Figure 2 (with Conventional External Passive Terminator)



Digital Active Termination, APS' exclusive patent-pending breakthrough in SCSI technology, eliminates SCSI voodoo from any SCSI chain. The result is fewer SCSI retries and more reliable data transmission. In short, SCSI peripherals work as they should, every time, even on hard-to-terminate CPUs like PC SCSI cards, Mac PowerBooks and the Mac IIx. DAterm is built into our SR 1000 and SR 2000 drives, and in the external SCSI Sentry & SCSI Sentry II that can be used in place of a regular passive terminator.

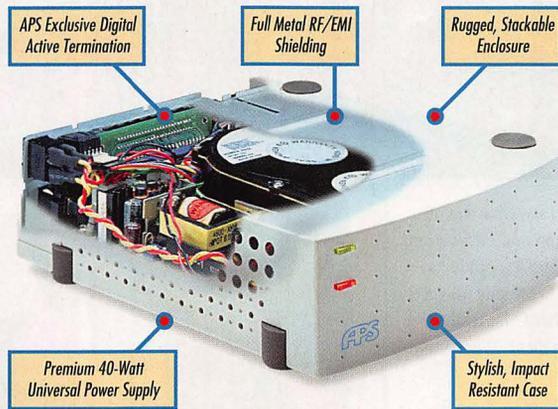
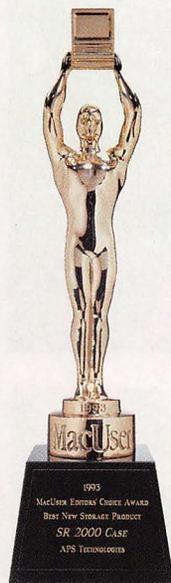


If It's Not APS, It's Not Digital Active Termination

APS developed Digital Active Termination technology. It's an APS exclusive. Don't be misled by claims of "active" termination from designs that are just a series of switched diodes and resistors. We put an integrated circuit in charge of termination so that DAterm dynamically manages the voltage and impedance of all data and handshaking lines in response to a much wider range of system conditions.

APS SR-Series Drive Enclosures

Both the SR 2000 and the SR 1000 come standard with DAterm built in. No external terminator is needed. The advantages of Digital Active Termination are not the only reasons to choose an APS drive, however. The APS SR 2000 and SR 1000 are premium drive enclosures designed and built for durability, convenience and performance.



All APS SR 2000 enclosures for SyQuest and CD ROM drives have an extended back and an external power supply.

SR 2000 (for 5.25" and 3.5" mechanisms)

- Built-in DAterm with termination power indicator LED
- Full Metal RF/EMI shielding
- Premium 40-watt universal power supply
- Rugged, stylish case
- Stackable (with APS StackKIT, available separately)
- Available with a wide range of drive mechanisms, or as enclosure kit

SR 1000 (for 2.5" mechanisms)

- Built-in DAterm with termination power indicator LED
- Stylish, ultra-compact case
- Your choice of US or International power supply
- Optional internal rechargeable battery for laptop use
- Compatible with early Connor 20MB and 40MB PowerBook drives
- Available with a wide range of drive mechanisms, or as enclosure kit



SCSI Sentry Stops SCSI Voodoo!

The Ultimate SCSI Performance Tool



NEW FROM APS

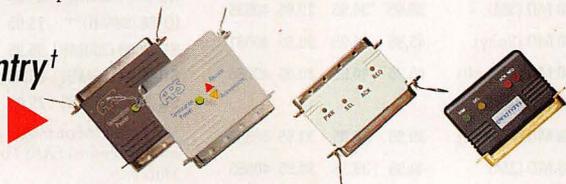
SCSI Sentry II
only **\$99⁹⁵**

SCSI Sentry
only **\$79⁹⁵**

The APS SCSI Sentry†, It Works, It's Worth It!

APS SCSI Sentry† with DA-Term can solve your SCSI problems. Lately, copy-cat products have appeared which attempt to imitate SCSI Sentry's exclusive Digital Active Termination technology. As you can see, there is a difference! Check the facts – only SCSI Sentry has the features you need to reliably terminate every SCSI configuration – even unpowered SCSI buses. Go with SCSI Sentry, the original and best active terminator, because a product that doesn't solve your problems isn't worth the money, no matter what the price.

Only SCSI Sentry† has DA-Term!



Benefits	SCSI Sentry†	ClubMac	Spin
Pass-Through Configurations	Standard	Available	No
Works on both Powered & Unpowered SCSI Busses	Yes	No	No
Exclusive Digital Active Termination	Yes	No	No
Drastically Reduces Most SCSI Retries	Yes	No	No
Solves Most Cable Impedance Issues	Yes	No	No
Can Provide Power to Unpowered SCSI Buses	Yes	No	No
Heavy-duty Shielded Metal Case	Yes	No	No
Macworld Magazine 4 Star Award Winner	Yes	No	No

†SCSI Sentry & SCSI Sentry II



... when all was said and done, SCSI Sentry did its stuff. All the problems I have experienced became history...

... this device may well be the cure for your SCSI woes. Even if your SCSI setup is working OK, I heartily recommend SCSI Sentry as an extra ounce of protection.

-Macworld Magazine

SCSI Sentry & SCSI Sentry II

"Stop SCSI Voodoo" on your SCSI chain, even when you're not ready to buy a new drive. Our SCSI Sentry and new SCSI Sentry II

give you all the benefits of APS' acclaimed Digital Active Termination or DA-Term technology in the form of external SCSI performance monitoring instruments. Unlike analog products that tell you they provide "active termination," SCSI Sentry's patent-pending Digital Active Termination technology monitors all SCSI data and handshaking lines, constantly matching impedance and regulating power. You can be assured that your SCSI chain will boot every time and that you'll get the best performance possible from the SCSI devices in your SCSI chain. SCSI Sentry's LED indicators instantly let you know if there's enough termination power on the bus for proper SCSI chain operation. If there's not, just plug in the included power supply and SCSI Sentry will provide it. Acknowledgement and Request LEDs indicate chain activity and help you quickly diagnose SCSI bus problems. Properly terminate even hard-to-daisy-chain CPUs like Apple's PowerBooks, Mac Plus and IIx models! SCSI Sentry is the tool end users and network administrators alike have been looking for.

SCSI Sentry II has all the features of the original SCSI Sentry, but includes a heavy-duty, auto switching international power supply with enough power to provide termination power to even large SCSI chains and those with absolutely no provided power (PowerBooks, PC SCSI chains and portable computers). Additionally, the new granite-colored SCSI Sentry II has a self-healing fuse which prevents time consuming return to the factory in the unlikely event of an accidental ground or overload.

ITEM	PRICE	CAT. #
SCSI SENTRY	\$79.95	41400
SCSI SENTRY II	99.95	41408



APS SCSI Sentry

Glossary

(Continued from page 18)

Program, Computer program This is a series of instructions that tell your computer how to do a specific operation. These instructions are stored in a file (or other special area) on a floppy or hard disk.

RAM (Random Access Memory) What's generally called "memory" in a computer.

Removable Device, Removable Media Device, Removable Hard Disk This is a hard disk who's media is ejectable and replaceable (like a floppy).

SCSI Stands for Small Computer System Interface. It is the description of the physical (hardware) implementation and the data protocol used by your computer to communicate to a hard disk.

SCSI ID Numbers are used by the Macintosh to differentiate between the various SCSI devices connected to your Macintosh. A unique SCSI number must be assigned to each and every SCSI device connected to your computer (hard disks, SCSI printers, and scanners may all use SCSI ID numbers). A standard Macintosh can only have 7 SCSI devices connected to it at any one time and they are assigned a number between 0 and 6. Normally your internal hard disk is assigned the number 0. If any two SCSI devices connected are configured to the same SCSI ID, your Macintosh will not work properly.

SCSI Bus, -es The SCSI port in the back of your Macintosh (DB25) allows you to connect hard disks to your computer. The wires or cables that connect the hard disk to the Macintosh allow data to flow between your computer and the hard disk(s) collectively, those wires constitute the SCSI bus.

SCSI Chain This is the collection of devices that are connected together and are connected as a group to the Macintosh's SCSI port. They are connected in a fashion that results distinct first and last devices resembling a chain.

Seek Time The amount of time (hopefully, in thousandths of a second, or milliseconds), that it takes a hard disk drive's read/write head to move to a specific location on the disk. Average seek, then, is the average of a large number of random samplings all over the disk. Seek time is CPU independent, meaning that seek time is the same for a disk drive, whether it is attached to a computer or not.

Spindle Speed The speed at which the drive's disks spin. 3600 revolutions per minute (RPM) is a typical Speed. Recently, drives with faster rotational speeds have shown up in the market. As a general rule, drives with faster rotational speeds can achieve higher transfer rates as data is passing the read/write head at a faster rate.

(Continued on page 22)

19
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APS Is The Place for All

Preformatted media – the time saving alternative!

I don't know about you, but the most frustrating thing about my computer is that tedious wait every time I push unformatted disks or cartridges into the drive. Initialization goes on forever and sometimes, even with the best media, the format fails after all that wasted time. But wait no more, here's the solution – preformatted media! Our floppy diskettes, 3.5" MO and SyQuest media are all available in preformatted versions for just a few dollars more.

Now you never have to look at that "This disk is unreadable, do you want to initialize?" message when you push new media into your drive. Imagine the time savings! No more waiting for initialization, just to find out that it won't format. Every disk and cartridge is formatted; every one works the first time!

Never waste time formatting new media again.

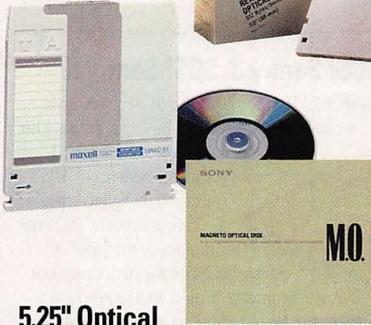
For Your SyQuest-based Drive...

APS offers you a choice in cartridges, choose either SyQuest brand cartridges or select SyQuest compatible cartridges from Iomega. Which cartridge is right for you? It's easy, choose from the table on this page

Medium Media Vault



20
800-354-1213
24 Hours a Day, 7 Days a Week
Winter '95



5.25" Optical

ISO compliant MO media from Sony and Maxell are compatible with nearly all 5.25" MO drive mechanisms, including Sony, Ricoh, Panasonic and Sharp. These high quality cartridges have extremely high resolution and outstanding carrier to noise performance for unsurpassed data integrity and extremely long life. We stock 5.25" cartridges in both byte densities – 512 K/sector for bootable Mac system cartridges, and 1024 K/sector for the highest data capacity when bootability is not required.

ITEM	1	10+	CAT. #
5.25" MO - Sony (1024KB/S) 1.3GB	\$109.95	\$104.95	40565
5.25" MO - Maxell (1024KB/S) 1.3GB	109.95	104.95	40564
5.25" MO - Maxell (512KB/S) 650MB	89.95	88.95	40539
5.25" MO - Maxell (512KB/S) 1.2GB	109.95	104.95	40563

Small Media Vault



Protect Your Media!

Backup media and hardware are only one part of the "backup equation." Off-site storage is a basic tenant of a solid backup scheme, but so is hazard protection. These media fire vaults from one of the oldest names in the business – Sentry – protect your valuable magnetic media from danger in the event of a fire or explosion.

ITEM	PRICE	CAT. #
SMALL MEDIA VAULT	\$149.95	49150
MEDIUM MEDIA VAULT	249.95	49152
LARGE MEDIA VAULT	699.95	49154

3.5" Magneto-Optical Media

We've tested everybody's MO cartridges. We've found that the cheap stuff consistently fails our reliability tests. MO media must have adequate reflectivity to allow data storage (and more importantly) data retrieval. It's this problem that has caused us to standardize on the most respected brands of MO Media – Maxell, 3M, and Sony.

Maxell, the manufacturer of what we feel is the best media available across the board, doesn't let us down when it comes to MO. Their reputation and guarantee more than justify a little more spent on the peace of mind that real data safety provides.

3M's new 128MB MO media delivers outstanding reliability. Its reflectivity (one of the features of MO media required for proper data operations) is outstanding. Whatever your choice, you know you'll be getting the best.

Sony has the R&D resources to create superior cartridges, a tradition of innovative products, and the highest quality manufacturing processes. It adds up to a guarantee of quality no-name media just can't match.

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
UNFORMATTED				
128 MO (Maxell)	\$34.95	\$33.95	\$28.95	40538
128 MO (3M)	35.95	34.95	29.95	40535
230 MO (Sony)	45.95	44.95	39.95	40561
230 MO (Maxell)	45.95	44.95	39.95	40566
PREFORMATTED				
128 MO (Maxell)	39.95	38.95	33.95	40558
128 MO (3M)	40.95	39.95	34.95	40555
230 MO (Sony)	50.95	49.95	44.95	40569
230 MO (Maxell)	50.95	49.95	44.95	40568

Maxell 3.5" Diskettes

The Maxell difference...only Maxell gives you the finest warp-free plastic shells, perfectly balanced media and the best, most reliable coatings in the industry. Inside the shell, you really see the difference. Maxell's exclusive multi-layer liner continuously cleans the disk's surface, trapping



For your SyQuest or licensed based drive...

APS offers you a choice in cartridges choose either SyQuest brand cartridges or select SyQuest compatible cartridges from Iomega. Which cartridge is right for you? It's easy, choose from the table below.

Cartridge	Form. Cap.	SQ 5110C	SQ 5200
SQ-400 Cart.	42MB	Read	Read
IO-44 Cart. (44MB)		Write	Write
SQ-800 Cart. (88MB)	84MB	Read	Read
IO-88 Cart. (88MB)		Write	Write
		Format	
SQ-2000 Cart. (200MB)	194MB	N/A	Read
		Write	
		Format	
Cartridge	Form. Cap.	SQ 3105	SQ 3270
SQ-310 Cart. (105MB)	100MB	Read	Read
		Write	Write
		Format	
SQ-327 Cart. (270MB)	255MB	N/A	Read
			Write
			Format

All of our cartridges come unformatted. For just a few extra dollars you can get preformatted cartridges for Macintosh filled with System 7.01, our choice selection of publicly-distributable software, but most of all they save you a lot of unproductive time... Order your cartridges preformatted. SyQuest brand cartridges carry a one-year limited replacement warranty, Iomega brand cartridges carry a five-year limited replacement warranty directly from the manufacturer.

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
UNFORMATTED				
SQ-400 (44MB)	\$59.95	\$58.95	\$57.95	40510
IO-44 (44MB)**	49.95	48.95	47.95	40509
SQ-800 (88MB)	79.95	78.95	77.95	40520
IO-88 (88MB)**	69.95	68.95	67.95	40519
SQ-2000 (200MB)	89.95	87.95	86.95	40560
SQ-310 (105MB)	59.95	57.95	56.95	40540
SQ-327 (270MB)	69.95	68.95	67.95	40550
PREFORMATTED*				
SQ-400 (44MB)	65.95	64.95	63.95	40512
IO-44 (44MB)**	55.95	54.95	53.95	40508
SQ-800 (88MB)	85.95	83.95	82.95	40522
IO-88 (88MB)**	75.95	74.95	73.95	40518
SQ-2000 (200MB)	95.95	93.95	92.95	40562
SQ-310 (105MB)	65.95	63.95	62.95	40542
SQ-327 (270MB)	75.95	74.95	73.95	40552

*Preformatted cartridges are formatted with the current version of APS PowerTools and are for Macs only.

**Indicates SyQuest compatible cartridges.

contaminants in the inner layer of fibers and keeping them away from the magnetic surface. You get peace of mind because you know that even the most minute speck of dust or dirt won't ruin your data.

ITEM – (10 PACKS)	PRICE	CAT. #
UNFORMATTED		
3.5" DD	\$6.95	41930
3.5" HD	7.95	41940
PREFORMATTED		
3.5" MAC HD	8.95	41950
3.5" DOS HD	8.95	41955

Your Media Needs!

Maxell Tape Media

Why do so many manufacturers buy their tapes from Maxell?

Because they're among the best! Maxell's trouble-free mechanism, high-quality tape stock and unrivaled coatings all combine to make Maxell the choice for DAT backup.

Your APS tape unit needs Maxell tapes, too. Need a DC 600 or DC 2000 cartridge? We carry most popular sizes.

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
60-M	\$9.95	\$8.95	\$7.95	42010
90-M	11.95	10.95	9.95	42015
120-M(DDS-2)	22.95	21.95	20.95	42018
8MM COMPATIBLE				
HS-8/112	10.95	9.95	8.95	42050
DC-2000 COMPATIBLE				
MC-2080	13.95	12.95	11.95	42036
MC-2120	15.95	14.95	13.95	42034
MC-2000	12.95	11.95	10.95	42030
DC-600 COMPATIBLE				
MC-6150 (DC 6150)	15.95	14.95	13.95	42040
MC-6250 (DC 6250)	19.95	18.95	17.95	42044
TEAC COMPATIBLE				
60MB (CS-600HD)	14.95	13.95	12.95	42020
155MB (CS-600XD)	17.95	16.95	15.95	42024
600MB (CS-600SX)	24.95	23.95	22.95	42026



3M Tape Media

The best known name in media products is 3M, and we've agreed to carry their outstanding tape and MO media.

Manufactured to exacting tolerances that have moved 3M media to the top of the list of preferred choices for dozens of tape and optical drive manufacturers, no one was ever fired for buying 3M.

We carry 4mm DAT tapes in 60M and 90M lengths, as well as 8mm tape in 112M lengths. 3M was the company that defined the DC-2000 and DC-600 market, and we've included the most popular sizes in our product line.

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
8MM COMPATIBLE				
8MM-112	\$8.95	\$7.95	\$6.95	43220
DC-2000 COMPATIBLE				
DC-2000	12.95	11.95	10.95	43230
DC-2080	15.95	14.95	13.95	43232
DC-2120	16.95	15.95	14.95	43234
DC-600 COMPATIBLE				
DC-6150	16.95	15.95	14.95	43240
DC-600A	17.95	16.95	15.95	43242
DAT COMPATIBLE				
60 M	9.95	8.95	7.95	43210
90 M	11.95	10.95	9.95	43215

NEW LOWER PRICES



Sony Tape Media

Sony knows magnetic tape as well as anybody, and all of Sony's know-how goes into their QIC and DAT tapes. Not only is the composition of the actual media among the most advanced available, but the case and mechanical components are designed to for unparalleled reliability.

ITEM	Best Value!			CAT. #
	1-4	5-19	20+	
DC-2120	\$14.95	\$13.95	\$12.95	42092
120 M (DDS-2)	19.95	18.95	17.95	42090



Head Cleaning Kits

Head cleaning tapes for TEAC 60, 155 and 600MB units and DAT units are easy to use. Just insert the tape cartridge and the tape head is clean in a few seconds.

ITEM	PRICE	CAT. #
TEAC CLEANING KIT	\$19.95	41025
DAT CLEANING TAPE	13.95	41020
DC-600	34.95	40993
DC-2000	29.95	40991
FLOPPY DRIVE CLEANING KIT	9.95	40996

LabelOnce Reusable Diskette Labels

Finally, you can erase or edit label text anytime and never change labels. It's simple with LabelOnce, the fast, easy, environmentally friendly alternative to layers and layers of standard paper labels. LabelOnce works with a permanent, oil-based felt tip marker that writes smoothly and dries quickly. To erase or revise



text, just use the non-smear vinyl eraser. No more messy changes, discarding old labels, and buying new ones. A LabelOnce label can

be used over and over again, dozens of times and still look like new.

ITEM	PRICE	QTY.	CAT. #
DAT TAPE STARTER	\$8.95	10	43060
STARTER KIT VHS	8.95	12	43040
STARTER KIT DC 2000	8.95	20	43030
SYQUEST 5.25" STARTER	8.95	5	43050
3.5" STARTER KIT	8.95	25	43010
5.25" STARTER KIT	8.95	25	43020
SYQUEST 3.5" STARTER	8.95	10	43070



ITEM	PRICE	QTY.	CAT. #
SYQUEST 3.5" REFILL	\$8.95	20	43075
SYQUEST 5.25" REFILL	8.95	10	43055
3.5" REFILL	8.95	50	43015
5.25" REFILL	8.95	50	43025
DAT TAPE REFILL	8.95	20	43065
VHS REFILL	8.95	12	43045

Best Backup Strategies

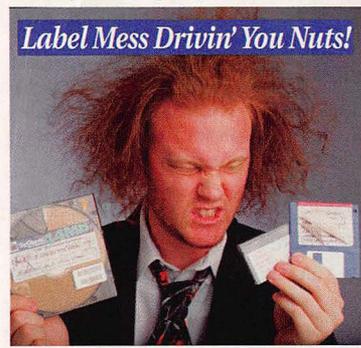
By Steven Bobker

Having a single backup copy is only slightly better than not backing up at all, and that's only if you keep that single backup set off site, away from your computer. Real backup means multiple backup sets. Some can be stored locally, although not too close to your computer (you'd probably prefer that your spilled cup of coffee didn't wipe out both your hard drive and your backup). One backup set should be stored as far from your computer as possible: your work data at home (if legal), your home data at work, and either or both in a safe deposit box or fire vault. Many of us take a snapshot tape of a whole system with us when we travel. That not only adds yet another layer of protection, but can be very handy if you suddenly need some access to your data while on the road.

The only real caveats about off-site backup storage relate to security. If there's anything at all personal or sensitive on your computers that material will wind up on your tapes. Make sure your tapes are physically secure (locked away) and use password protection and possibly (depending on how much you trust the system) encryption.

At work or home, you need a schedule and a strategy. Without both, you won't achieve maximum reasonable safety. Here's one very workable system:

Create three entire backups of your system (you can do this over three days). After the first backup do incremental, not full, backups. Label the first two tapes Daily 1 and Daily 2. Run Daily 1 on Mondays, Wednesdays, and Fridays. Run Daily 2 on Tuesdays, Thursdays and, if you operate on Saturdays, on Saturdays. Keep these tapes locally and replace them every 90 days or as they fill up. Label the third backup Off-site 1. Run it Sunday if you can, Monday morning otherwise. This tape should be moved to your off-site storage location as soon as practical. The next week create a fourth full backup (Off-site 2) and swap it with Off-site 1. Rotate those tapes on a weekly basis, replacing them as they are full.



Label Mess Drivin' You Nuts!

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Media Storage

Organize yourself with these media storage products! Whether you need a place to keep all those floppy diskettes, a home for CDs, or just a simple organizer for all those DAT tapes, we have a variety of fine products that'll help you clean up your office or find just the CD you were looking for — easily, quickly and neatly.

Glossary

(Continued from page 19)

Storage device

A place where ones data can reside. This can mean a floppy, tape or hard disk.

Termination The SCSI chain is required to have two electronic devices at the start and end called terminators. These terminators ensure that the communication signals traveling over the SCSI bus have distinct high and low levels.

Transfer Rate Relates to how fast data can be transferred from the disk drive to the computer. Transfer rates for reading data from the disk drive may not be the same as the transfer rate for writing data to the disk drive. Transfer rates are CPU dependent, meaning that regardless of how great the transfer rate your drive is capable of, the actual transfer rate can only be as fast as the slower of your hard disk drive and computer. Buying a drive capable of an extremely high transfer rates for a computer with a lower capability is senseless, as is the opposite, saddling a computer with a drive whose transfer rate capability is less than the computer.

Unformatted Capacity The capacity of a disk drive (in number of bytes of data that can be fit onto the disk) before it is formatted for a particular kind of computer. Unformatted capacity is not dependent on the type of computer with which the drive is being used.

Update APS PowerTools is able to replace your existing driver without effecting the data stored elsewhere on your hard disk. This process is called updating.



22

Outside the US & Canada

1-816-920-4109

Winter '95



Portable Diskette Case

Fellowes Portable Diskette Case holds 10 3.5" floppy diskettes for easy transportation or storage. Just right to pack in the outside pocket of that PowerBook carrying case or store on the bookshelf.

ITEM	PRICE	CAT. #
PORTABLE DISKETTE CASE	\$3.95	49216

Diskette Fan-File

These compact portable diskette cases from Fellowes let you easily store and transport up to 10 floppy diskettes in as compact an enclosure as we've seen. When open, diskettes "fan" for easy access.

ITEM	PRICE	CAT. #
FAN-FILE DISKETTE FILE	\$4.95	49214

A few years ago I spent weeks looking for a product like this to store a lot of floppies or CDs, and finally had one made out of plexiglass at an outrageous price. These modular media drawers from Fellowes provide a versatile, expandable, interlocking drawer system for storing 3.5" floppy diskettes or CD ROMs. Each 3.5" drawer holds 65 diskettes or 12 DAT tapes. Each CD ROM drawer holds 20 CD ROM disks in their jewel boxes or 100 5.25" floppies.

ITEM	PRICE	CAT. #
A. MODULAR MEDIA DRAWER 3-1/2" (SINGLE)	\$19.95	49200
MODULAR MEDIA DRAWER 3-1/2" (3 PK.)	49.95	49202
B. MULTI-MEDIA DRAWER 5-1/4" (SINGLE)	24.95	49206
MULTI-MEDIA DRAWER 5-1/4" (2 PK.)	44.95	49208



APS' Durable & Convenient Media Storage Products Make Organization A Snap!



3.5" Disk Files 100

3.5" disk files

These 3.5" floppy disk files available in 50 and 100 diskette capacities, help you custom tailor your diskette organizational needs. Ergonomic latch and lid make use easy, simple and comfortable. Space efficient design provides maximum capacity with minimum desktop. Easy to move dividers allow ideal organizational flexibility.

ITEM	PRICE	CAT. #
DISK FILE 50	\$4.95	49226
DISK FILE 100	6.95	49228



3.5" Disk Files 50

Micro-Data Cubes

Micro-Data Cubes are the economical and compact way to keep your backup tapes organized, yet easily accessible. Three different sizes accommodate most popular tape cartridges.

ITEM	PRICE	CAT. #
4MM DAT STORAGE	\$9.95	42265
8MM DAT STORAGE	9.95	42262
DC300/600 STORAGE	9.95	42260



CD 25

CD-25

Aesthetic styling, convenient access, solid construction — the CD-25 has them all! Store and easily access up to 25 CD's in this aesthetic black matte CD storage unit. Rubber coated base prevents slipping.

ITEM	PRICE	CAT. #
CD-25	\$19.95	42296

CD-3

I use CD ROMs all the time, but I can't seem to find anywhere to store them. The Compact Disc Storage System from CD-3 has solved that problem. It stores up to 40 CDs, safely spaced for optimal protection, and they take up less than a third of the space of conventional jewel box storage systems. Finding the right one is a snap, I just line up the sliding indicator with the desired title and open the top. The safety handle lets me carry the whole CD collection around safely. My CDs are protected, easy to find whenever I need.



CD-3

ITEM	PRICE	CAT. #
CD-3 (WHITE)	\$29.95	42290
CD-3 (BLACK)	29.95	42294



An office fire starts every 4 minutes! You can protect your data.

If you're already convinced that backing up is a good idea, consider the next step in data protection – the proper storage environment for those crucial backup copies. It's an unpleasant subject but those of us who live our lives on silicon chips and magnetic media need to consider it carefully. Your important data is only half protected if you simply "backup." The rest of the "backup equation" involves the protection of your priceless backup copies, and the best way to protect your backup copies is to store them in the Media Vault. On-site or off, the Media Vault protects your priceless data from one of the most common causes of casualty loss – fire. Without warning and without recovery, fire, smoke and the water and chemicals used to fight them can destroy computers and hard disks as well as tapes and removable cartridge media that aren't adequately protected. Even if you've stored your data backups in a regular fire safe, you're probably not adequately protected!

It's true, paper documents are safe in a fire up to about 450°, but magnetic computer media can become irreparably damaged at temperatures as low as 125°F! Regular fire safes are designed to protect paper documents and keep them from reaching the critical 450°F char point at which paper documents begin to break down and become unrecoverable.

Unlike a standard fire safe, Media Vaults are so well protected that they keep magnetic computer media at safe temperatures (110° or less) through the average building fire – and protect against the high humidity that's usually associated with extinguishing those fires. In fact, these Media Vaults have been exhaustively tested

Magnetic computer media can become irreparably damaged at temperatures as low as 125°F! Regular, inexpensive fire vaults are designed to only protect paper documents and keep them from reaching that critical 450° char point.

and are UL certified to maintain an interior temperature no higher than 110°F and with no more than 60% humidity through the average building fire (1200°F), and up to half an hour in an extremely hot fire (1500°F). They'll even survive a flash fire/expllosion environment up to 2000° F. The large Media Vault is additionally protected to withstand extremely hot fires up to 1700°F for as long as one hour and then survive a 30 foot fire-impact drop test!

Don't wait until disaster strikes! Take the next step in the "backup equation." Protect your precious data on-site and off by storing it in a safe environment. Store it in a Media Vault.



Medium Media Vault

Media Storage

Even after a fire, this data/media was in perfect condition!



Don't Let It Fry!



SURGEON GENERAL'S WARNING! ONLY MEDIA VAULTS CAN PROTECT MAGNETIC MEDIA AND VIDEO AGAINST HEAT! REGULAR FIRE SAFES CAN'T!

Small Media Vault

The Small Media vault is a convenient size and is ideal for documents that need to be safely stored and then moved off-site while protected. It has convenient carrying handle and a space-saving organizer. It holds up to 60, 3.5" diskettes or 30, 5.25" diskettes, 16 cassette tapes, 20 3.5" data cartridges or over 30 DAT tapes. It has a key lock designed for privacy and disaster integrity (as opposed to high level security).



Small Media Vault

Large Media Vault

The Large Media Vault is a large capacity floor standing model with both media and document areas. It provides a remarkable half cubic foot of protected area for media, which translates into up to 200 3.5" diskettes or 140, 5.25" diskettes, or up to 80 data cartridges. Additionally, it provides nearly 0.9 cubic feet of document protection area. The sophisticated combination lock system is adequate to insure privacy and security.

ITEM	PRICE	CAT. #
SMALL MEDIA VAULT	\$149.95	49150
MEDIUM MEDIA VAULT	249.95	49152
LARGE MEDIA VAULT	699.95	49154

(Allow 7 – 10 days for delivery)



Medium Media Vault

Large Media Vault



Protect your valuable media with one of these fire, smoke and humidity-proof media vaults!

23
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Cleaning Supplies

klear screen from Meridrew is the only screen cleaning product we use, promote or sell for the cleaning of VDT, displays, TVs, CDs laptop or PDA screens. It's the only product of its kind on the market that contains absolutely no alcohol or abrasives and is entirely non-toxic. Used in conjunction with Meridrew's klear kloths, this is absolutely THE BEST no-scratch cleaning product available today!

Performa's: Apple's Best Bargain

(Continued from page 8)

power than the Performas offered. The traditional information sources, like the magazines, have all but ignored Performas because they come so loaded with software that few additional software sales could be expected in the first year after purchase (traditionally an expensive time for traditional computer buyers). As a result, advertisers weren't much interested. Performas also tended to sell to individuals and not companies. Since at least one major magazine tends to totally ignore such users, nearly to the point of denying their existence, they ignore Performas.

With the recent release of the Performa 630 series, Apple is allowing their normal dealer chain to sell them alongside the regular line. Since the 630s are incredible price/performance packages (unless you must have a Power Mac), they're going to sell a lot of them.



24
800-354-1213
24 Hours a Day, 7 Days a Week

Winter '95



klear screen™ & klear kloths

klear screen is absolutely the best product we've seen for cleaning the delicate plastic coatings on your external monitor, PowerBook or Newton display. The very first FDA approved, certified, non-toxic computer screen cleaner, klear screen has no abrasives or alcohol that can damage or scratch plastic or glass screens and cases. klear screen's exclusive system of surface lubricants and organic cleaners lift and dissolve most contaminants and debris, actually floating them off the surface, leaving a totally transparent, anti-static protective coating. There is no better product for cleaning CD or Laser Disc products on the planet! klear kloths are what you should use with klear screen to clean delicate optical-grade plastic and glass surfaces without scratching or abrading. Perfect for use in cleaning high-tech equipment like laptop computer and PDA screens, VDT displays and workstations. They also clean laser discs, CDs, TV screens, eyewear and high definition sports optics. klear screen and klear kloths are so good that Apple Computer used them at every demo station for the Boston Macworld, Newton product launch; they sell them as the exclusive screen cleaning system in the Apple Company Store!

ITEM	PRICE	CAT. #
KLEAR SCREEN SPRAY (2 OZ.)	\$7.95	40915
KLEAR SCREEN SPRAY (8 OZ.)	9.95	40981
KLEAR KLOTHS (6 - 11" X 13")	4.95	40980
KLEAR SCREEN WIPE SETS	4.95	40918



OfficeDuster³

Floppy Drive Cleaning Kit



100% CFC-free and ozone-safe, OfficeDuster³ is the ideal moisture-free, portable compressed air solution for cleaning dust and debris off everything from lenses to laser printers.

ITEM	PRICE	CAT. #
OFFICEDUSTER ³	\$9.95	40985

Data Cartridge Drive Cleaners

Providing up to 54 cleanings on DC-600 or DC-2000 type data cartridge drives (including totally enclosed systems), ReadRight's cleaning systems are the only totally automatic systems that provide a reliable, automatic way to clean the read/write head and capstan.

ITEM	PRICE	CAT. #
DC-600	\$34.95	40993
DC-2000	29.95	40991



KeyKleen

A convenient, disposable, premoistened swab for removing dust and dirt on, around, and between and under keyboard keys of microcomputers and terminals. The special "paddle" shape gives access where others can't go. KeyKleen dries rapidly and leaves no residue. 24 pre-moistened swabs.

ITEM	PRICE	CAT. #
KEYKLEEN	\$19.95	40986

PathKleen

Reduce service calls on personal copiers, plain paper copiers and laser printers. Removes paper and other foreign matter from rollers, delivering cleaner, streak-free copies. Ten paper path cleaning sheets per package.



ITEM	PRICE	CAT. #
PATHKLEEN	\$9.95	40987



LaserCare Kit

Economy Head Cleaning Kit for 3.5" Floppy Drive

ITEM	PRICE	CAT. #
3.5" FLOPPY DRIVE CLEANING KIT	\$9.95	40996



Tape Head Cleaning Kit

Head cleaning tapes for TEAC 60, 600 and 155MB units as well as DAT drives are easy to use. Just insert the tape cartridge and the tape head is clean in a few seconds.

ITEM	PRICE	CAT. #
TEAC 60, 600, 155MB KIT	\$19.95	41025
MAXELL DAT CLEANING TAPE	13.95	41020

CD ROM Drive Lens Cleaner

If you're using a CD ROM drive, chances are the performance has decreased over time. That's probably due to dirty optics on the laser head. This CD ROM Drive lens cleaner will gently clean the lens optics to help maintain optimal performance.



ITEM	PRICE	CAT. #
CD ROM DRIVE LENS CLEANER	\$19.95	40989

MouseKleen Kit

MouseKleen removes dirt, lint and debris from tracking rollers for ultimate mousing.

Contains:
1-5 oz. OfficeDuster³ Jr.
1-1 oz. MouseKleen Solution
4-Dual-sided Foam Swabs
8-Office Equipment Cleaning Pads

ITEM	PRICE	CAT. #
MOUSEKLEEN	\$19.95	40988

LaserCare Kit

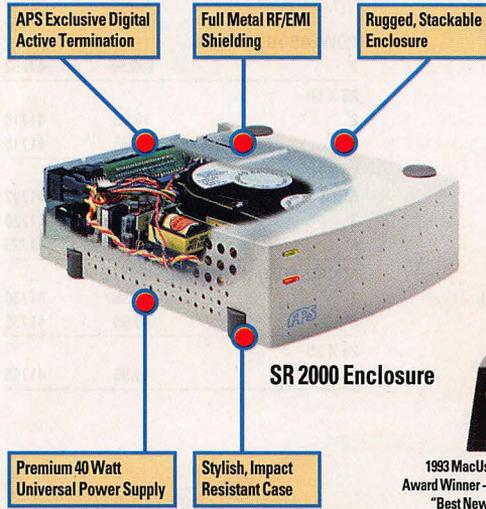
This laser printer care kit from ReadRight cleans transfer guides, paper guides, corona wires and more. The ideal way to improve output while reducing service calls and paper jams. The LaserCare Kit is the right kit to order for laser-based plain-paper fax machines.

Includes:
1-5 oz. OfficeDuster³ Jr.
1-1 oz. Corona Wire Cleaning Solution
1-4 oz. Guide Cleaner (contains no alcohol)
12-Office Equipment Cleaning Pads
12-Head Cleaning Swabs
15-6" x 6" DataWipes

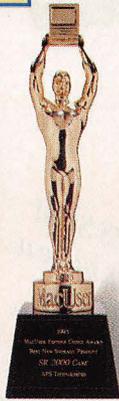
ITEM	PRICE	CAT. #
LASER CARE KIT	\$29.95	40994

Now for the first time, you can have the MacUser Eddy award-winning SR 2000 drive enclosure in kit form!

Get the benefits of our critically acclaimed Digital Active Termination (DATerm) technology and the best drive enclosure available in the market. The APS SR 2000 is a superb enclosure for that homeless 3.5" half-height or third-height drive. Compatible with most 3.5" half-height or third-height SCSI drive mechanisms that require less than 40 watts of power (peak).



SR 2000 Enclosure



1993 MacUser Editors' Choice Award Winner - APS SR 2000 Case "Best New Storage Product"

If you need a home for that old 2.5" SCSI drive, don't even consider other options. The APS SR 1000 is the only external drive enclosure for 2.5" drives that provides DATerm, Digital Active Termination. Designed to insure the optimal SCSI chain performance from even those testy, pseudo-terminated 2.5" drives, DATerm insures that your SCSI chain will boot and operate properly. Available in AC or AC/DC versions, drive installation is a breeze with our easy-to-follow illustrated instructions. Our AC-only SR 1000 is one of the few enclosures of its type that works properly with the Conner 20 and 40MB drives which were shipped in hundreds of thousands of early PowerBooks, but which required so much start-up power that they were incompatible with many enclosures. The AC/DC version of the SR 1000 uses premium battery technology which delivers 4 - 8 hours of operation on a single charge (depending on drive mechanism and usage), far more than similar products. The SR 1000 comes with a 25 x 50 SCSI cable and a 110VAC power supply. International power supplies are optionally available.



SR 1000 Enclosure

Cases & Brackets

Yeah, that's the way to sell enclosures!

Every day someone calls asking to buy an external enclosure for a hard disk drive or tape unit. We've agonized about selling them because frequently people try to put drives inside enclosures that require special SCSI ID harnesses, or which exceed the limits of the power supplies. Different drives require different stand-offs. Sometimes we end up providing more technical support for a case than we do for a complete drive unit!

The best way to sell a case for a hard disk drive is first, sell only the best available product. Then, provide all the stand-offs, harnesses, jumpers, etc., to allow installation of almost any appropriately-sized drive mechanism. Finally, provide step-by-step instructions - complete with pictures.

The SR 2000 upgrade kit comes with FREE installation video!

SR 2000 Enclosure (ES)

APS Drive Enclosures

You can buy premium enclosures for 3.5" half-height and third-height drives; 5.25" full-height drives; and even 2.5" drives with battery power for use with your PowerBook. All enclosures come with one of our high-quality 19 twisted pair, double-shielded, fully-soldered braid, 25 x 50 (Mac to SCSI) cables (which meet or exceed Apple Computer's own specifications). Also included: a one-year warranty and an instruction manual detailing installation with diagrams and pictures.

CODE	ITEM	CASE DIMENSIONS W X H X D	DRIVE	PRICE	CAT. #
EF	APS 5.25" FULL-HEIGHT ENCLOSURE	6.5" X 5.5" X 14"	MOST 5.25" FULL-HEIGHT DRIVES	\$199.95	41430
EX-OF	APS ZERO-FOOTPRINT (UNIVERSAL)	9.5" X 10.5" X 2.5"	MOST 3.5" HALF-HEIGHT	79.95*	
U41415					
SR10	SR 1000 - AC (CLOSED)	6" X 9" X 1.75"	MOST 2.5" DRIVES	89.95	41432
SR1C	SR 1000 - AC/DC (CLOSED)	6" X 9" X 1.75"	MOST 2.5" DRIVES	139.95	41434
ES	SR 2000 - (CLOSED)	7" X 8.5" X 2.25"	MOST 3.5" DRIVES	179.95	41406

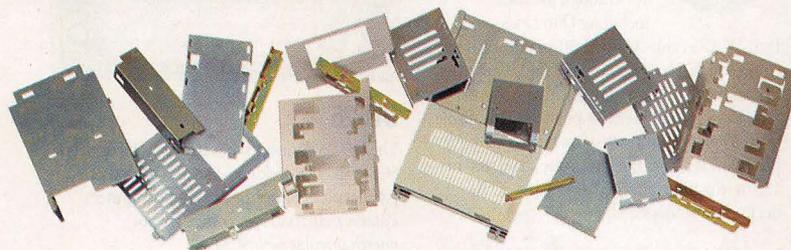
*While supplies last!!
All APS enclosures include internal cabling and step-by-step installation guide.



APS Bracket Kits Are the Best Available!

Like our SCSI cables, we make sure our bracket kits have the same high quality and unbeatable price.

When suitable, they're identical to Apple's own brackets. In many cases, because of enhanced mounting needs, we've designed and built brackets that improve on the original or deliver expanded mounting options as in the case of our Mac II, full-height drive bracket and our LaserWriter Pro bracket.



Bracket Kits

ITEM	PRICE	CAT. #
LASERWRITER PRO 630	\$69.95	40405
MAC SE, SE/30 DRIVE	29.95	40410
MAC II, IIX, IIFX HH DRIVE	29.95	40420
MAC II, IIX, IIFX, FULL HT DRIVE	29.95	40425
MAC IIC1, CX, Q700 DRIVE	29.95	40430
QUADRA 900, 950 HH DRIVE	29.95	40440
SYQUEST IN Q 900, 950	39.95	40442
Q 800 INSTALL KIT FOR SYQUEST 88 OR 44	39.95	40444
MAC Q 900, 950 FH DRIVE	29.95	40445
FACE PLATE FOR DAT IN Q 900	29.95	40448
MAC II SI, LC DRIVE	29.95	40450

ITEM	PRICE	CAT. #
MAC DUO DOCK DRIVE	\$29.95	40455
POWERBOOK 100	9.95	40460
MAC CLASSIC	29.95	40470
QUADRA 800 5.25"	29.95	40475
CENTRIS 610 5.25"	29.95	40477
IDE DRIVE	7.95	40480
SCSI DRIVE IN PC	7.95	40485
MAC IIVX, C 650 3.5" BAY	29.95	40490
MAC IIVX, C 650 5.25" BAY	29.95	40495
DUO BRACKET	9.95	40497
SYQUEST IN MAC IIVX, C 650 5.25" BAY	29.95	40499

Kits include brackets, screws, power and data cables where applicable.



Mac Tool Kit

Need to get inside your compact Mac (Plus, SE, SE/30, Classic or Classic II) but can't find the tools? Our economical Mac Tool Kit provides all the tools you need to open your Mac safely. Included is a T-handled driver, clam-shell case spreader and wrist ground strap.

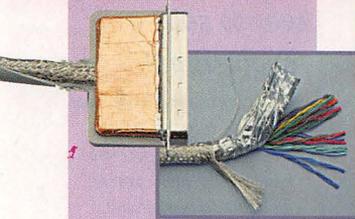
ITEM	PRICE	CAT. #
MAC TOOL KIT	\$9.95	40120

25
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Cables

Ours



Our connectors:

- Full copper shields circumferentially soldered to the heavy copper braid and to the connector's steel hood. Ten microinch gold plating on all connector pins.

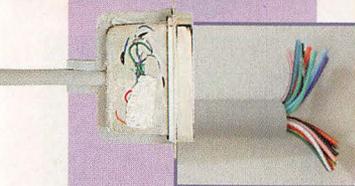
Our cables:

- Heavy, 26-gauge, tightly twisted copper data pairs – 19 sets. Full-length, heavy foil shielding and heavy-duty, fully-soldered braid. Heavy gauge copper drain wire runs from soldered position on one connector hood to the other. Industrial grade plastic sheathing.

All APS SCSI cables have a lifetime warranty!

We felt it was only reasonable. When you sell the best SCSI cable on the market, it makes sense to offer the best warranty. All APS SCSI cables carry a lifetime replacement warranty.*

Theirs



Many competitive connectors offer little or no shielding and no hood connection to the foil or braid. Bare, base metal connector pins.

Lightweight drain wire provides the only ground from connector to connector. Their cables: light 28- or 32-gauge, low copper content data lines with few twists. Many use no pairing, just 25 light conductors. Thin foil shielding with light steel braid mechanically fastened at each end. Lightweight plastic sheathing. This cheap cable actually came with a drive purchased from one of those computer superstores!

26
800-354-1213
24 Hours a Day, 7 Days a Week
Winter '95

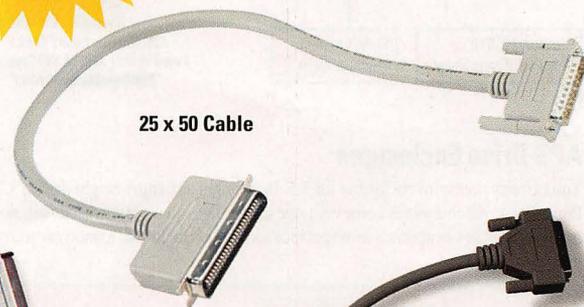
Get The Best Your SCSI Devices Have To Offer – Use Premium APS SCSI Cables and Connectors!



50 x 50 Cable



25 x 25 Cable



25 x 50 Cable



Mini SCSI Link



25 x 25 PC Parallel Port Cable

30-Pin Connector



The 30-pin connector is used as the SCSI interface connector on all of Apple's PowerBook products from the 100 through the 180, including Duo Docks and LW Pro.

All APS cables with the 30-pin PowerBook connector will have one pin missing. This is the proper configuration for use with an external SCSI device. A different 30-pin cable is available from Apple computer that has pins in all thirty positions. It allows the PowerBook 100, 160 or 180 to which it is attached, to act as a SCSI device on another CPU.



50-Pin Centronics-Style

The 50-pin connector found on the back of all APS drives, as well as those of most other manufacturers' drives, is also referred to as a peripheral connector, SCSI device connector or centronics connector. It is found on the other end of the basic Mac SCSI cable (the cable that goes from the desktop Mac to a SCSI drive). The cable that has two of these 50-pin connectors is called a daisy-chain cable, a "B" cable or a 50 x 50 centronics cable.

APS Mini SCSI Link

At last a premium quality short length SCSI cable to help you minimize that cable mess – and overall SCSI chain length.

ITEM	PRICE	CAT. #
MINI SCSI LINK	\$19.95	41722



DB-25

The DB-25 connector has two uses. It connects SCSI cables to desktop Macs and is used as a parallel port connector on other computers. Parallel port devices and cables are not interchangeable with SCSI.



Micro-SCSI

The micro-SCSI connector works for some Mac peripherals, Adaptec micro-channel SCSI host adapters and SUN workstations.

SCSI Cables

ITEM	PRICE	CAT. #
POWERBOOK 30 X 50		
2'	\$39.95	41752
25 X 50		
2'	19.95	41710
6'	29.95	41715
50 X 50		
MINI SCSI LINK	19.95	41722
3'	19.95	41720
6'	29.95	41725
MICRO-SCSI/CENTRONICS-STYLE 50		
2'	39.95	41730
6'	49.95	41735
25 X 25		
3'	19.95	41745

Switch Cable

One of the problems I face regularly is hooking my PowerBook up to my label printer while alternately trying to take serial data from the phone switch through the printer port. That's why this inexpensive serial switch cable is just the ticket. Now I can leave both plugged in and with just the push of a button, switch seamlessly from one to the other.

ITEM	PRICE	CAT. #
6' SWITCH CABLE	\$29.95	41769

*Limited lifetime warranty includes cable replacement for defects or failure due to manufacture. Damage due to abuse or misuse is not covered. For a complete copy of this warranty, ask your sales associate.

Are Poor Quality or Failing Cables Really the Root of All SCSI Problems?

Well, probably not, but after hundreds of thousands of drive and tape products, we've found that intermittent SCSI errors (both the ones you know about and the ones you don't know about) cause many, if not most, of the data integrity and hard disk booting problems experienced by SCSI peripheral users. As we searched for an answer, it became clear that the highest quality SCSI cables available and stable, responsive, Digital Active Termination provided part of the answer.

Think cables are all the same? Look at the comparison in the left border. Only APS cables use paired, 26-gauge conductors (not 28 or even 32), tightly twisted inside an end-to-end foil

shield and a fully-soldered heavy-duty steel braid. Both are soldered around the whole diameter of the cable to the copper shield over the connector, which in turn, is soldered all the way around the steel connector hood. A heavy,

SCSI Cables Make a Big Difference!

full-length, soldered copper drain wire runs from one connector hood to the other and the entire cable is wrapped in a tough plastic sheath. Add an incredible ten microns of gold plating (not just flashing) on each and every connector

pin and you have the best data integrity and guaranteed reliability. Our patent-pending Digital Active Termination or DATerm provides much of the rest of the answer. Place an APS drive in one of our award-winning SR 2000 enclosures or one of our new SR 1000 enclosures at the end of your SCSI chain. Or, if you prefer to use our new SCSI Sentry to add Digital Active Termination to your existing SCSI chain, the combination of short, high-quality cables and near-ideal SCSI conditions provided by Digital Active Termination assures the best possible performance from your SCSI devices. Don't risk your valuable data!

APS Has Premium Cables and Connections for Many Applications

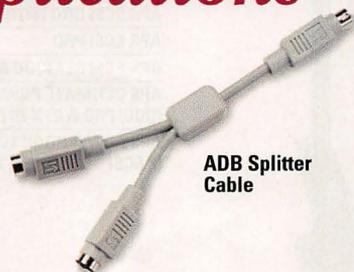


Serial Printer Cable

Serial Printer Cable

Our serial printer cable allows you to connect a Mac serial port to an Imagewriter II or StyleWriter.

ITEM	PRICE	CAT. #
SERIAL PRINTER CABLE	\$9.95	41770



ADB Splitter Cable

Modem Cable



PC Parallel Cable - Male to Female

Perfect for the APS MOBILSTOR Line.

ITEM	PRICE	CAT. #
APS PC PARALLEL CABLE	\$19.95	41724

Power Cord

ITEM	PRICE	CAT. #
6' AC POWER CORD (not shown)	\$3.95	41705

Network Patch Cords

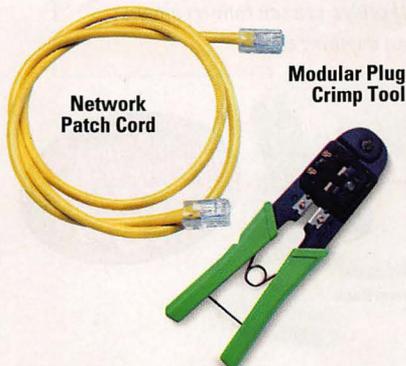
Get the most from your local area network! Our distinctive, bright yellow premium level 5 network patch cords are a must for optimal data transmission across your network. Conforming to AT&T spec, our level 5 patch cords are compatible with 10Base-T, USAC and EIA network wiring protocols. Available in 3', 6' and 12' lengths, our high quality level 5 patch cords have an RJ45 connector at each end.

ITEM	PRICE	CAT. #
NETWORK PATCH CORD		
3'	\$7.95	41780
6'	9.95	41782
20'	11.95	41784

Modular Plug Crimp Tool

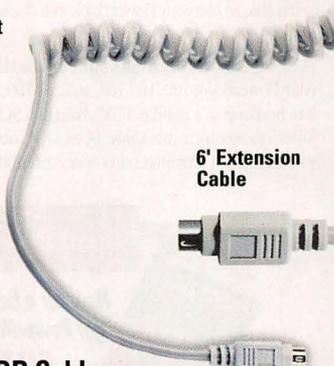
This modular crimp tool is better than most of the tools we've seen and used - at up to twice the price! With cutting and stripping blades for 4, 6, and 8 conductor silver skin, crimping dies for RJ11/15 connector heads, and RJ45 connector heads as well as heavy duty action and the "feel" of a quality tool, this is the one tool you need to add to your network and telephone armamentarium.

ITEM	PRICE	CAT. #
CRIMP TOOL	\$49.95	42752



Modular Plug Crimp Tool

Replacement ADB Cable



6' Extension Cable

ADB Cables

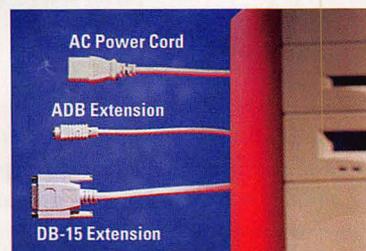
Our replacement cable fits Apple's keyboards and most third party ADB keyboards or input devices that use a standard ADB connector. Keyboard's in the wrong place and the cable's too short? Our ADB extension cable gives you a 6' extension. Our ADB splitter lets you connect two ADB devices when one of them doesn't support a pass-through connection.

ITEM	PRICE	CAT. #
6' EXTENSION	\$9.95	41760
ADB SPLITTER	19.95	41765
REPLACEMENT ADB	9.95	41768

Modem Cable

Our Mac modem cable works with most Hayes compatible modems. On one end, the Mac serial connector (for modem or printer ports), on the other, a standard DB-25-style connector.

ITEM	PRICE	CAT. #
MODEM CABLE	\$9.95	41740



Computer Extension Kit

Arranging the equipment that sits on your desk can be a chore, especially with that Macintosh right there in your way. Our extension kit moves your monitor and keyboard up to six feet farther away from your CPU. Includes AC power, DB-15 monitor, and ADB extension cables.

ITEM	PRICE	CAT. #
COMPUTER EXTENSION KIT	\$24.95	49192

Cables

Cables Are the Most Important Peripherals

by Steven Bobker

You will have SCSI problems; that's a given. The only way to avoid SCSI problems is to not use SCSI devices. And, in today's computing environment, that's not possible. There are two elements of the SCSI chain that you have control over: termination and cable quality. It's in your best interests to use the best cables and correct termination at all times.

Two caveats: (1) APS invented and sells the best Digital Active Termination system. The fact that you are now reading the APS catalog doesn't change that; (2) If you somehow get a complex chain working, make daily ritual offerings to it and never ever touch it, upon pain of it never working again.

SCSI problems often arise far from the cables and devices that are the actual culprits and are often unrelated to your CPU. If your Mac is mysteriously crashing and you have a SCSI device or devices hooked up, suspect them before anything else. Check your SCSI chain even before you start looking for Extension (INIT) conflicts.

Here's how to prevail in your war against your SCSI chain. First, find out if you have a SCSI problem. If the Mac is crashing, start by disconnecting the whole chain. If that solves the problem, add devices back one at a time. Swap the cables around. Be sure all cables are really tight. Very slightly loose cables kill many chains. Sometimes you can't even see that a cable is a bit loose, but your electronics can. If your cables come from a variety of sources and are of different thicknesses, it's an excellent idea to replace them with the best quality cables. Having cables from a single source helps a lot. If your CPU is a PowerBook, this means Apple or APS cables. Pick one or the other and get a full set.

Throw out all your thin cables. These are the cheap things that come with some gear. They're about 3/16" in diameter and consist of 25 data lines wrapped with 1 ground line. They will cause problems and will fail. They're not worth anything at all.

(Continued on page 28)



27
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Terminators, Cables & Adapters



Cables Are the Most Important Peripherals

(Continued from page 27)

Throw out all your thin cables. These are the cheap things that come with some gear. They're about 3/16" in diameter and consist of 25 data lines wrapped with 1 ground line. They will cause problems and will fail. They're not worth anything at all. The thick cables have 26 pairs of wires (each data line is twisted together with a ground) and the whole set of 26 pairs is wrapped with another ground or two. These cables have excellent, not cheap looking, connectors as well. No price is too high for a good SCSI cable.

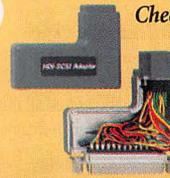
Use the shortest cables that will physically connect your equipment. That not only helps performance, but keeps your total chain length under the maximum legal length (just over 19 feet, including the stubs and ribbons inside your equipment). There are NO reliable rules for termination, no matter what the books say. If your chain isn't working and the cables are good, add an ordinary terminator here or there. Trial and error usually works. Or invest in the unique APS SCSI Sentry, a plug-in active terminator. It's about 4 or 5 times as expensive as an ordinary pass-through unit and many, many times more effective. It will solve tough termination problems straightforwardly. Finally and most important, good luck.

The Ultimate PowerBook Connection Kit

Cut your cable-carrying responsibilities to the bare minimum. Get our Ultimate PowerBook Connection Kit. With a SCSI Doc, a SCSI Pro and a three foot 25 x 25 cable, you can use your PowerBook to dock to another desktop Mac as well as copy files to or from an external hard disk drive (one with centronics-style or 25-pin connectors). With the three compact pieces in the Ultimate PowerBook Connection Kit, you save yourself the trouble of carrying a PowerBook to SCSI peripheral 30 x 50 cable, a PowerBook to add SCSI peripheral cable (30 x 25), and an Apple docking cable. On space considerations alone, you'll be miles (several feet, really) ahead, and the weight is less than half that of the cables necessary to do all these jobs.

Don't be confused by imitations!

Warning: Cheesy Plastic Knock-Off



Cheesy plastic knock-offs claim to be as good, but only SCSI DOC is made of solid metal - It'll never break off in the back of your PowerBook. The cast aluminum shell provides the ultimate in data shielding, far more shielding, in fact, than cheap painted plastic. You'll use the SCSI DOC for years because it will never bend, break or crush them in your case or luggage.

SCSI DOC™

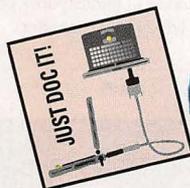
With a heavily shielded, male HDI 30-pin connector at one end, a female DB-25 connector at the other and a switch for SCSI or docking mode, you are able to use inexpensive, readily available Mac-to-device cables, as well as being able to use your PowerBook as a docked SCSI drive on your desktop Mac.

SCSI DOC's switch activates pin 1 on the HDI 30 connector. This puts your PowerBook 100, 160, 180, 165c or 180c into docking mode and allows it to hook up to a regular SCSI chain as a SCSI hard disk, using a standard DB-25 to 50 centronics cable. SCSI DOC also has an LED that indicates whether or not termination power is present on the SCSI bus.

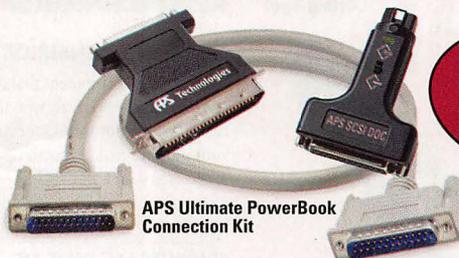
Great Bundle Deal

Now for a limited time
get **PowerMerge Lite**
FREE!
with every SCSI DOC
purchase. A \$118 Value

Now you can reduce the number of cables you have to carry with just two simple products - SCSI DOC and SCSI PRO - or one of our exclusive connection kits.



The APS PowerBook connectors are fast becoming the standard in the industry. With SCSI DOC, SCSI PRO and a couple of cables, you can connect almost anything in the SCSI Mac universe to almost anything else.



The Ultimate PowerBook Connection Kit
\$49.95

SCSI PRO™

APS SCSI PRO is the universal SCSI adapter that lets you instantly convert any Mac system cable (25 x 50 pin) into a daisy-chain cable to connect one SCSI peripheral device to another. Don't worry about having the wrong cable when one is all you need to keep track of now that you have SCSI PRO.



ITEM	PRICE	CAT. #
APS SCSI DOC WITH POWERMERGE	\$29.95	42137
APS SCSI PRO	19.95	42140
APS SCSI SET (DOC & PRO)	29.95	42145
APS ULTIMATE POWERBOOK CONNECTION KIT (DOC, PRO & 25 X 25 CABLE WITH POWERMERGE)	49.95	42182
APS POWERBOOK TO POWERBOOK CONNECTION KIT (2 SCSI DOCS & 25 X 25 CABLE)	59.95	42165



APS PowerBook-to-PowerBook Connection Kit

Two SCSI DOCs and a 3' 25 x 25 SCSI cable.

ITEM	PRICE	CAT. #
APS POWERBOOK-TO-POWERBOOK CONNECTION KIT	\$59.95	42165

PowerBook-to-PowerBook Connection Kit
\$59.95

The APS Ultimate PowerBook Connection Kit

SCSI DOC, SCSI PRO and a 3' 25 x 25 SCSI cable.

ITEM	PRICE	CAT. #
ULTIMATE POWERBOOK CONNECTION KIT	\$49.95	42182

End Cable Bondage... FOREVER!

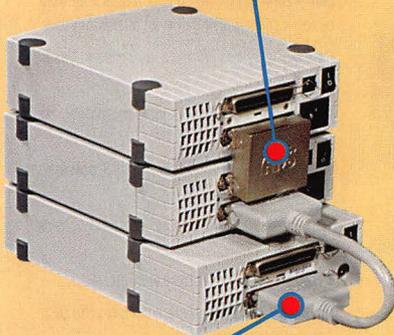


No
More
SCSI
Mess!



SCSI "C" Connector

APS StackKIT
(Includes one SCSI "C" Connector & four
concave SR 2000 "stacking" feet)



APS StackKIT II
(Includes one Mini SCSI Link & a set of
concave SR 2000 "stacking" feet)



Mini SCSI Link

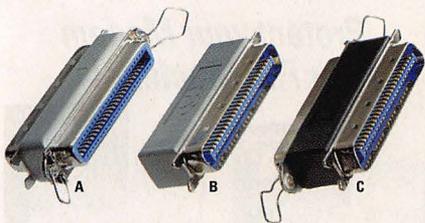
APS StackKIT & StackKIT II

Clean up the mess around your SCSI drives! Shorten the length of that unruly SCSI chain for optimal SCSI performance with the APS StackKIT and new StackKIT II. The original APS StackKIT works with our APS SR 2000 enclosures and drives to optimally shorten and shield the SCSI chain as well as stabilizing SR 2000 drive stacks. The original StackKIT includes four concave "stacking" feet and our exclusive SCSI "C" connector that minimizes SCSI chain length by delivering the shortest possible SCSI connector length between devices. Heavy metal shielding protects the SCSI data signal from stray radiation and performance-killing signal interference. The new APS StackKIT II accommodates those longer SR 2000 enclosures used for 5.25" mechanisms. Each StackKIT II includes a set of concave SR 2000 stacking feet and our new Mini SCSI Link. Now you can stack your SR 2000 drives on a non-SR 2000, existing drive, and still minimize cable length, or stack all styles of SR 2000 drives in a shortened, optimally-shielded SCSI chain environment.

ITEM	PRICE	CAT. #
STACKIT	\$19.95	41460
STACKIT II	19.95	41462

SCSI Terminators

ITEM	PRICE	CAT. #
A. FLOW-THROUGH	\$9.95	41120
B. PASSIVE (ENDCAP)	8.95	41110
C. IIFX (BLACK)	14.95	41130



APS' Best SCSI Ribbon Cables

External cables aren't the only source of SCSI communication problems. Internal ribbon cables can be at fault, too. A high-quality replacement cable from APS is perfect for restoring proper operation, or for setting up a new internal drive configuration.

ITEM	PRICE	CAT. #
11" SE, SE/30, MAC II	\$12.95	40030



The solution to split ends!

SCSI Splitter

The APS SCSI Splitter lets you add a second SCSI port to those devices which provide only one. Ideal for use with our SR 1000 enclosure when you just can't position them at the end of the SCSI chain.

ITEM	PRICE	CAT. #
APS SCSI SPLITTER	\$19.95	42139

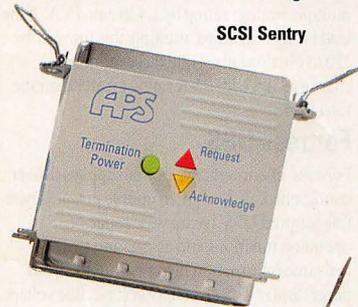


APS SCSI Splitter

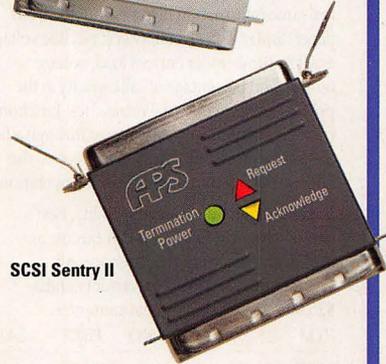
**Perfect for scanners,
portable drives &
printers**

Terminators, Cables & Adap

APS SCSI Sentry & SCSI Sentry II

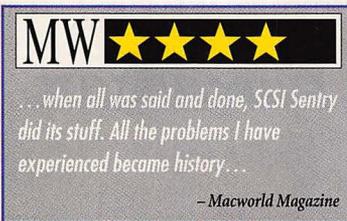


SCSI Sentry



SCSI Sentry II

ITEM	PRICE	CAT. #
SCSI SENTRY	\$79.95	41400
SCSI SENTRY II	99.95	41408



SCSI Sentry & SCSI Sentry II

The original SCSI Sentry helps you stop "SCSI Voodoo" on your SCSI chain even when you're not ready to buy a new drive. You get all the benefits of our acclaimed Digital Active Termination technology in the form of an external SCSI performance monitoring instrument. Unlike analog products that tell you they provide "active termination," SCSI Sentry's patent-pending Digital Active Termination monitors all SCSI data and handshaking lines, constantly matching impedance and regulating power. You can be assured that your SCSI chain will boot every time and that you'll get the best performance possible from the SCSI devices in your SCSI chain.

SCSI Sentry's LED indicators instantly let you know if there's enough termination power on the bus for proper SCSI chain operation. If there's not, just plug in the included power supply and SCSI Sentry will provide power for termination. Acknowledgement and Request LEDs indicate chain activity. Properly terminate even hard-to-daisy-chain CPUs like Apple's PowerBooks, Mac Plus and IIfx models! SCSI Sentry is the tool end users and network administrators alike have been searching for.

SCSI Sentry II brings you all the features of the original SCSI Sentry in a new granite-colored package. More importantly though, SCSI Sentry II includes a high capacity auto-switching international power supply that can provide enough power for even long, complex SCSI chains and those with absolutely no termination power. This is particularly important in PC SCSI and portable computing environments. Additionally, SCSI Sentry II has a self-healing fuse which prevents time consuming return to the factory the unlikely event of an accidental ground or overload. SCSI Sentry also has a number of internal circuitry improvements which enhance data movement and reliability on the bus.

29
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Prices and specifications subject to change without notice

UPS & Surge Suppressors

Will The Real Line-Interactive UPS Please Stand Up?

"Line Interactive" is one of the hottest buzzwords in the power protection industry today. Fortunately for consumers, the term "Line-Interactive UPS" does have an official definition. The 1993 edition of the IEEE "Emerald Book," Recommended Practice for Powering and Grounding Sensitive Electronic Equipment, describes a UPS this way:

"The static UPS is a solid state device which provides regulated continuous power to the critical loads."

According to IEEE, a "Line Interactive UPS" is a special type of static UPS:

"In the line-interactive (or single conversion) UPS, utility power is not converted into DC but is fed directly to the critical load through an inductor or transformer. Regulation and continuous power to the critical load is achieved through the use of inverter switching elements in combination with inverter magnetic components such as inductors, linear transformers, or ferroresonant transformers. The term "line interactive UPS" comes from the fact that the inverter interacts with the AC line to buck, boost, or replace incoming AC power as needed to maintain voltage control.

Standby Power Systems (SPS) do not meet the IEEE description for line-interactive UPS, because it defines the technology as providing continuous power to the load. SPS - even those that may include the letters 'UPS' in their brand names - break output power on transfer to inverter, so they don't provide continuous power.

The bottom line: if it advertises a transfer time, it's not a line-interactive UPS!

How Much UPS is Enough?

UPS selection based on the AC power requirements of your system. Use these guidelines to determine system power requirements. Don't forget to add the power required by your monitor, and consider your future needs, too. List the nameplate rated VA (volt-amp rating) for your CPU, monitor, external hard drives, etc. If load rating is in watts, multiply wattage rating by 1.4 to equal VA. If the load rating is in amps, multiply this number by 120 to obtain watts. Total these ratings and choose a UPS with a VA rating greater than the total load.

Fortress UPS

Fortress' line-interactive power supplies deliver conditioned, truly uninterruptible power. These full-featured UPS' have a wide range of operation functions and alarms and provide real-time information directly from the front panel display. Check battery voltage, line voltage, exact runtime under current load, voltage output, and percentage of full capacity at the press of a button or two. Fortress' test function runs the Fortress' internal systems through a full diagnostic check and transfers full load to the UPS for several minutes to verify it's operation.

For automatic shut-down capability, Best's shutdown software for Mac can execute an orderly shut down in your absence. All Fortresses have a two-year warranty and a \$25,000 attached equipment guarantee.

ITEM	H/W/D (IN.)	PRICE	CAT. #
FORTRESS 360	(7/5.5/16)	\$399.95	41801
FORTRESS 460	(7/5.5/16)	499.95	41803
FORTRESS 660	(7/5.5/16)	599.95	41805
FORTRESS 950	(11/5.5/17)	799.95	41807
FORTRESS 1300	(10/8/17)	999.95	41809
FORTRESS 1800	(17.5/8/19)	1,499.95	41813

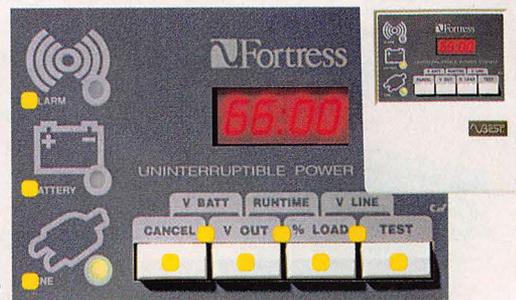
PANAMAX®



PanaMax is our choice for surge suppressors because they are built and backed by the best. PanaMax makes some of the most advanced surge suppressors available, with a total energy dissipation capability of up to 672 joules, spike capacity as high as 40,000 amps, and capacitor filters that reduce EMI and RFI by 99.7% in the normal range. These highly-advanced surge suppressors will protect your equipment or PanaMax will replace your surge suppressor and your equipment (up to \$25,000 or \$5,000,000 depending on model) - for life! The Max line features four- and six-outlet designs, with or without phone line protection.

The least expensive UPS isn't a bargain...

If it says "UPS" on the label, there must be a UPS in the box, right? Wrong! Most well-known, inexpensive units being sold as "Uninterruptible Power Systems" don't really provide uninterruptible power at all. That's why you should protect your precious data and your expensive equipment with the best product available for the job - the Fortress line of Uninterruptible Power Systems from Best.



Patriot SPS

For a lower cost backup power alternative, consider Best's Patriot line of Standby Power Systems. Unlike line-interactive UPS systems, systems that advertise a transfer time are actually Standby Power Systems (SPS). The Patriot line switches to battery power in less than 4 milliseconds in the event of a power interruption. Their three to five year battery life, Microprocessor control, regulated inverter output, full lightning, surge and spike protection, EMI and RFI noise filtering and a triple mode status indicator with two audible alarms make Patriots the standout among SPS products.



ITEM	H/W/D (IN.)	PRICE	CAT. #
PATRIOT 300	(7/5.5/11)	\$179.95	41816
PATRIOT 450	(7/5.5/11)	259.95	41815
PATRIOT 650	(7/5.5/15.5)	369.95	41817

UPS units are very heavy and some units must be shipped via truck freight. Please call or fax us for exact shipping charges and delivery options.

- **Alarm** - Red alarm light and beep indicate that something is wrong.
- **Battery** - Yellow light indicates the UPS is providing battery power to your equipment.
- **Line** - Flashing green light indicates your wall outlet is still supplying power, but slightly low.
- **Cancel** - silences alarms after problem has been solved.
- **V Out** - shows the voltage your equipment receives.
- **% Load** - shows percent of the UPS' power that your equipment is using.
- **Test** - tests the UPS display, light, and battery charge.
- **V Batt** - shows the battery voltage.
- **Runtime** - shows how many minutes the UPS can provide battery power.
- **V Line** - shows the voltage from the wall outlet.

Check UPS

Check UPS for Mac shuts your Mac down in the event of an extended power failure

ITEM	PRICE	CAT. #
CHECK UPS FOR MAC	\$99.95	41814

Protect your Modem or Fax Machine!



The Max 6 is perfect for desktop computers. Two of the outlets are rotated 90° to accommodate those oversized power supplies without losing the use of one outlet. There's even one "always hot" outlet. For modem users, consider the TeleMax 4 or 6. The TeleMax 4 provides protection for four power outlets as well as one phone line device (modem, fax machine, etc.). The TeleMax 6 provides for six outlets and one phone line. The SuperMax provides all of the features of surge suppression to its four AC outlets and one telephone line, but adds critical low-voltage protection should the delivered line voltage fall below 85 volts. Finally, the Max 5000 has the same great protection as the rest of the Max line, but sits discretely under your monitor and offers the convenience of front panel, switched control of its five AC outlets. The optional Max Tel/1 module even adds phone line surge suppression to the Max 5000.

ITEM	PRICE	CAT.#
MAX 6	\$49.95	40658
TELEMAX 4	49.95	40648
TELEMAX 6	59.95	40650
SUPERMAX	79.95	40652
MAX 5000	69.95	40656
MAX/TEL 1	19.95	40660

Portable Surge Suppressor

Perfect PowerBook protection! Small and light enough to go anywhere, this portable surge suppressor protects both power and modem lines from electrical surges and noise. The \$25,000.00 attached equipment warranty makes this an inexpensive way to gain peace of mind.

ITEM	PRICE	CAT. #
PORTABLE SURGE SUPPRESSOR	\$19.95	49234

30
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24 Hours a Day, 7 Days a Week

Winter '95

APS Companion II™ Drives



PowerBook users around the world who liked our

Companion™ cases will love our new Companion II drives in our SR 1000 portable enclosures. Lightweight and compact, the SR 1000 enclosure incorporates our exclusive patent-pending DAterm technology for trouble-free termination of external SCSI devices. Our SR 1000 enclosure has enough power to accommodate virtually any 2.5" drive, including those problematic 20MB and 40MB Conner drives that came with early PowerBooks. The SR 1000 enclosure is available in both AC only and AC/DC configurations. The AC/DC unit incorporates high-density battery and charging technology to keep your external drive product operating on the enclosed battery for more than four hours!

Stylish, lightweight and compact, the SR 1000 drive enclosure is the perfect accessory for your PowerBook or your desktop Mac.



APS T 340 Puts Desktop Power in Your PowerBook

With 324MB of formatted capacity, the APS T 340 sets the standard in high-capacity PowerBook storage. Designed for use with all PowerBooks, the 19 mm, 2.5" form factor APS T 340 delivers sustained SCSI transfer rates as high as 1.2MB per second, an average access time of 26 ms and an average seek time of 11.3 ms, requiring even less power than the previous APS T 213.



	AC ONLY	CODE	INTL.	AC/DC COMP. II SR 1000	AC ONLY COMP. II SR 1000
APS T 340	25	\$399.95	\$549.95	\$499.95	

APS T 520: All the Megs You Ever Wanted

Relax, stop holding it in. Just say, "Ahhhhhhh!" The new APS T 520 gives you 500MB to expand into, so you don't have to worry about space in your PowerBook again. Designed for use with all PowerBooks, the APS T 520 delivers transfer rates as high as 1.5MB per second, an access time of 26 ms and average seek times of 11.3 ms. The APS T 520 is the new high-capacity PowerBook champion.

	AC ONLY	CODE	INTL.	AC/DC COMP. II SR 1000	AC ONLY COMP. II SR 1000
APS T 520	T01	\$449.95	\$599.95	\$549.95	



PowerBook Drives

DRIVE ORDER INFO ON ORDER FORM

ITEM	FORMATTED CAPACITY	CODE	INTERNAL	AC/DC SR 1000	AC-ONLY SR 1000
APS T 340	324MB	25	\$399.95	\$549.95	\$499.95
APS Q 341	326MB	A23	349.95	499.95	449.95
APS Q 514	491MB	A24	449.95	599.95	549.95
APS T 520	511MB	T01	449.95	599.95	549.95

Prices and specifications subject to change without notice.

Color MicroDock



SCSI MicroDock

Ethernet MicroDock

pocket, but provides high-speed 10Base-T Ethernet networking capability, affording Duo users an easy, compact way of connecting to Ethernet networks in the office or on the road.

Includes a 10' EtherNet 10Base-T cable and a two-year parts and labor warranty.

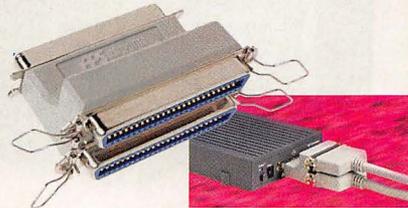
SCSI MicroDock

The SCSI MicroDock is a "must have" product which provides the Duo user a lightweight portable docking module which delivers to Duo users the ability to attach an external SCSI device or chain. This innovative marvel has a dual-mode setting that allows the Duo to both act as the host computer to a SCSI chain, and "dock" as a hard disk drive to another Mac - without the use of a special cable!

Color MicroDock

Newer Technology's Color MicroDock delivers 8-bit color from your Duo with full support for VGA, SVGA, LCD displays and Apple monitors up to 16". Larger format Apple monitors are supported in 4 bit mode. With Newer's optional adapter, you can even get NTSC video out of this portable gem.

ITEM	PRICE	CAT. #
ETHERNET MICRODOCK	\$169.95	42129
SCSI MICRODOCK	139.95	42125
COLOR MICRODOCK	269.95	42127



APS SCSI SPLITTER™

The APS SCSI Splitter is ideal for use with our SR 1000 enclosure when you just can't position them at the end of the SCSI chain.

ITEM	PRICE	CAT. #
SCSI SPLITTER	\$19.95	42139

APS PB PowerTool

The handiest, most compact tool we've seen, our PB PowerTool tool kit lets you get inside that PowerBook with the tools you really need. Locking hex extension, small flat bit, Phillips #2 bit and Torx T-8 and T-10 all fit neatly and compactly in the molded handle. If you're planning PowerBook surgery, don't open the patient until you have the right instruments. Get the APS PB PowerTool.



ITEM	PRICE	CAT. #
APS PB POWERTOOL	\$9.95	40112

APS Toshiba 520MB Hard Drive

by Steven Bobker

It holds nearly 40 percent more data than any previous small hard drive and at the same time is quieter in operation and uses no more power. I expected this high rotational speed, multi-platter drive to be noisy, but it's easily the quietest drive of the seven PowerBook drives I've had. It's quick spinning up from sleep and is easy on my batteries.

This drive, which uses a Toshiba MK2428B mechanism, formats to just about 500 useful megabytes. It's a fast drive, with a claimed average seek time of 12 milliseconds and a 512K cache. It can transfer data faster than most computers, including all PowerBooks, can accept that data. While it's not visibly faster than its immediate predecessors, it is noticeably much faster than early PowerBook drives. The drive is SCSI-2 capable and could be used with appropriate brackets and cables in a SCSI-2 environment, although you're on your own for the brackets and cables right now.

This drive is too big for most users to leave as one volume. If you do, the minimum file size will be 8K. That means that aliases which typically use between 512 and 2000 bytes will occupy 8192 bytes each if you leave this drive partitioned as a single volume. I've split mine into 5 volumes [4 of 95M (1.5K minimum file size) and 1 of 120M (2K minimum file)].

At a cost of roughly \$1.30 per formatted megabyte (for internal use) this is not a cheap drive, and currently too expensive for most uses other than PowerBooks and printers that require 2.5-inch internal drives. However, it does offer enough capacity for even very large multimedia presentations, and enough space so that you really can use your PowerBook as your primary computer. It is the best drive for any PowerBook today.

Get the most from your PowerBook Duo on the road with MicroDocks from Newer Technology

EtherNet MicroDock

I love using my Duo, but sometimes I need high-speed access to an Ethernet network and just don't have a full Duo Dock unit handy. Until now, that meant that I had to beg or borrow a Duo Dock or Mini Dock if I wasn't computing right at my desk. Newer Technologies now changes all that with their amazing new Ethernet MicroDock. The smallest Ethernet docking device available, the Ethernet MicroDock actually fits in a shirt



31
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Prices and specifications subject to change without notice

The PowerBook Battery Story

by Steven Bobker

Batteries wear out. If you have a 100, 140, or 170 and still have the original battery it may be near dead. Get a new one and return the dead one to your dealer for safe disposal.

All PB batteries are composed of groups of power cells. The battery is only as good as its weakest cell. There's a wide range of acceptable battery cells. It's perfectly possible to get a loser. Return any battery that performs extraordinarily poorly after 2 full charge/discharge cycles.

Don't ever fully discharge a PB100 battery or flatpack battery unless you need a new doorstop. Duo and 5xx-series batteries can take more abuse, but don't tempt them.

Always turn AppleTalk OFF when running on a battery. Keep backlighting as dim as possible. Most PBs use fluorescent sidelighting and there's a point where it's OFF, and then just a tad up where it's ON. That's the right setting. It uses much less power than full bright. Color PowerBooks need more illumination. The contrast setting does not noticeably affect power usage. In bright light (typically sunlight) you may be able to position the screen so that the backlight can be turned off entirely.

The PowerBook Essentials Travel Kit

by Steven Bobker

PowerBooks are made to travel. Unfortunately they're not made to travel on their own. Every time you leave with one, you should also have an accessory kit with you. The items in the following checklist will get you through most every trip and every crisis.

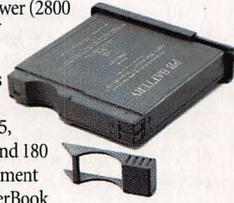
PowerBrick PowerBook power supply and extra batteries (it amazes me how often these fail to make the trip).

(Continued on page 33)

32
800-354-1213
24 Hours a Day, 7 Days a Week
Winter '95

Replacement NiCad Battery

Delivering more power (2800 mAh) than some of Apple's original equipment batteries (2400 mAh) for PowerBook 140, 145, 150, 160, 165, 170 and 180 models, our replacement battery for the PowerBook delivers up to 50 percent longer operation. (Not for use in 165c or 180c.)

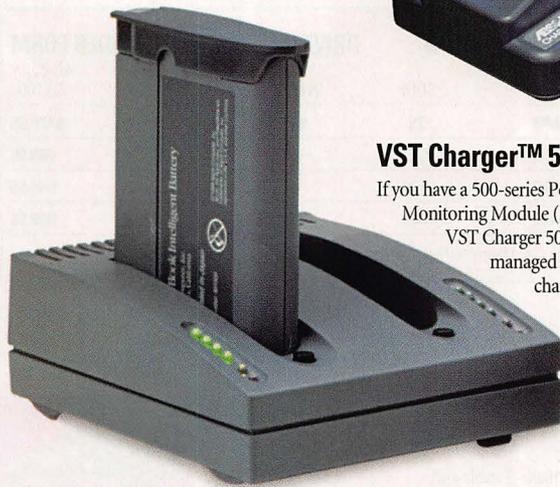


ITEM	PRICE	CAT. #
NICAD BATTERY	\$49.95	42110

Duo Replacement Battery

Duos need extra batteries too! Our Type II NiMH batteries for the PowerBook Duo substitute transparently for the originals, but at a much lower price!

ITEM	PRICE	CAT. #
DUO REPLACEMENT BATTERY	\$79.95	42111



Battery Charger

Conditioning your NiCad PowerBook batteries is a must in order to get the longest life, best performance, and minimize the irritating and battery life-sucking condition known as the "NiCad memory effect." This economical quick charger fast charges and conditions PowerBook batteries to minimize or eliminate "NiCad memory effect."

ITEM	PRICE	CAT. #
BATTERY CHARGER	\$64.95	42112
BATTERY CHARGER & BATTERY	99.95	42150



LED SuperCharger II for the Duo

At last, we've found one of the most widely requested accessories for the Duo - a reasonably priced, high-quality conditioning charger for PowerBook Duo nickel metal hydride batteries. From the PowerBook power experts, Lind Electronic Design, NiMeHy Duo batteries charge to maximum capacity in as little as two hours in the Lind Supercharger II, with no time consuming trickle charging required. The Lind SuperCharger II also conditions the PowerBook Duo battery to prevent and correct loss of capacity due to the "memory effect," which, while far less significant than that experienced by nickel-cadmium batteries, is still a concern for nickel metal hydride battery users.



ITEM	PRICE	CAT. #
LED SUPERCHARGER II FOR THE DUO	\$139.95	42171

VST Charger™ 500

If you have a 500-series PowerBook, you need a battery charger that is as intelligent as the terrific Energy Monitoring Module (EMM) batteries Apple designed for the newest PowerBooks. Not only does the VST Charger 500 charge two PowerBook batteries in as little as an hour, but the computer-managed communication channel to the battery's "smart chip" guarantees unparalleled charging consistency for optimum battery life. An instant charge status display keeps you informed of your batteries' charging status. The Charger 500 takes advantage of the latest technology. Not just another battery charger, it's a complete battery management appliance.

ITEM	PRICE	CAT. #
VST CHARGER	\$169.95	42172

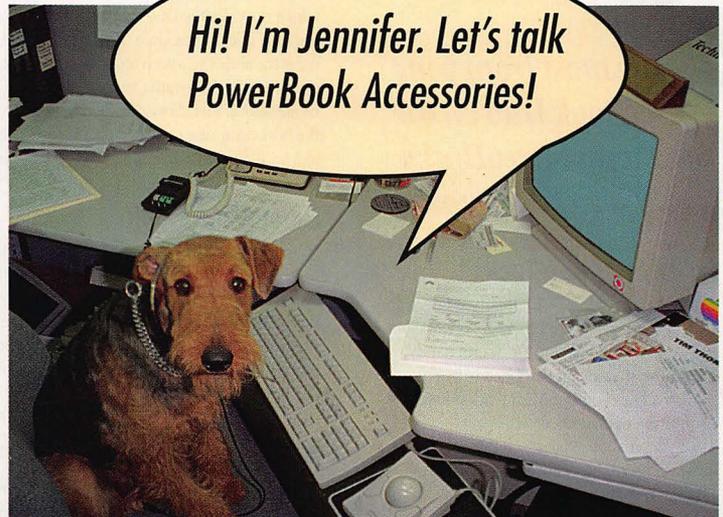
Lind Memory Saver

With the Memory Saver from Lind Electronics you can change the battery in your PowerBook 140-180c without shutting down, keeping all documents and applications open and resuming work again in seconds. Simply put your PowerBook to sleep, plug in the Memory Saver - the LED tells you its OK - and then switch PowerBook batteries.



It's flexible, so you won't break it or pull it out accidentally. The Memory Saver uses a standard 9-volt battery (an Energizer™ Alkaline battery comes with it), so replacements are inexpensive. You can leave the battery plugged in all the time because there's no load

ITEM	PRICE	CAT. #
LIND MEMORY SAVER	\$9.95	42116





APowerBall II™

Brighten up that dull granite world with APS PowerBalls in a variety of vivid colors. We searched the world over to find the perfect trackball replacement and alas, no one was making them. We decided to rectify the situation and had precise tooling and custom-built molds manufactured. Our original PowerBall set comes in four glorious colors, lime green, bright yellow, safety orange and pink purple and is available in all three PowerBook sizes: 19 mm, 25 mm and 30 mm. Now with our new PowerBall Set II, you can also get PowerBalls for your Duo or 140-180 series PowerBook in China blue, classic fire engine red, grape purple and black (eight ball). PowerBalls are precision trackball replacements that are precisely the right size for your PowerBook. APS PowerBalls were featured in the "MacUser 100," MacUser Magazine's annual 100 bargain-priced gift ideas. The perfect customization for your own PowerBook, or the perfect gift when you need "that something special for your Mac-loving friends."

China Blue Red Grape EightBall*



ITEM	PRICE	CAT. #	ITEM	PRICE	CAT. #
APS POWERBALL SINGLESEACH			APS POWERBALLS ORIGINAL - 4 PACKS		
FOR PB 100	\$7.95	4371(X)	4 PACK - PB 100	\$9.95	43710
FOR PB 140-180	7.95	4372(X)	4 PACK - PB 140-180	9.95	43720
FOR PB DUOS	7.95	4373(X)	4 PACK - PB DUOS	9.95	43730
(1) YELLOW, (2) ORANGE, (3) GREEN, (4) PINK PURPLE, (5) CHINA BLUE, (6) RED, (7) GRAPE, (8) BLACK EIGHTBALL* (*AVAILABLE IN SOLID BLACK ONLY FOR 19 MM SIZE)			APS POWERBALLS II - 4-PACKS		
			4 PACK - PB 140-180	\$15.95	43750
			4 PACK - PB DUOS	15.95	43760

Grip-it Strips



I love the textured granite-colored surface of the PowerBook, but when I start trying to juggle it on my lap, on a slick surface, or merely go to pick it up with moist hands, I've come dangerously

close to disaster. Enter Grip-it strips. A cool idea to help you hold onto that slippery portable, Grip-it strips are the best value in anti-loss protection and security you can buy. Constructed of flexible, dimensionally and color stable, textured material with a pressure sensitive adhesive backing, these clever serpentine strips can be applied to curved or flat surfaces to add gripping stability to a PowerBook, another portable computer or peripheral device, or just about anything that just needs a little texture for more security. 3-pack includes purple, teal and black strips.

ITEM	PRICE	CAT. #
GRIP-IT STRIPS (3-pack)	\$19.95	42152
GRIP-IT STRIPS (Purple)	8.95	42153
GRIP-IT STRIPS (Teal)	8.95	42154

PowerPads

Designed especially for the PowerBook, Silicon Sports PowerBook Pads adhere (with peel and stick adhesive) to the areas on either side of the PowerBook's trackball, providing a comfortable, non-slip surface for optimal PowerBook productivity.

ITEM	PRICE	CAT. #
POWERPADS (0) BLACK (3) BLUE	\$7.95	4446(X)



Notebook Pad



PowerPads

PowerDoor

If you're like me, you lost the door off the back of your PowerBook 140-180 (also available for 500 series PowerBooks) within the first couple of weeks of hard use, and even if you have enough patience to order a new one, the constant opening and closing seems to ensure that it'll be gone again within a few weeks. Now you can get the PowerDoor from AVO. Save time and eliminate the hassle of repeatedly flipping down the rear door while protecting the PowerBook I/O ports. The PowerDoor installs in seconds and gives you quick and easy access to the modem port and the power switch. Don't leave the back of your PowerBook unprotected, get the AVO PowerDoor.

ITEM	PRICE	CAT. #
POWERDOOR	\$14.95	40141
POWERDOOR 500	14.95	40142

Notebook Pad

Provide a comfortable place to work on your PowerBook (or any notebook computer for that matter), whether you're at your desk, on the road, in an airplane, or in a foreign hotel room. The non-skid base raises your PowerBook off the desktop slightly and keeps it stable. The integrated WristPads gently but firmly support your wrists in the ergonomically proper position.

ITEM	PRICE	CAT. #
NOTEBOOK PAD (0) BLACK (3) BLUE	\$19.95	4445(X)



Tattoo Your Blackbird!

Blackbird Tattoos are actually ultra-thin, colorful plastic overlays for "Blackbird's" innovative Midas Touchpad. The 20-to-a-pack Tattoos are designed on .002" mylar stock and feature a non-permanent adhesive ensuring their easy removal without marring the TouchPad surface, while maintaining precise tracking capability.

ITEM	PRICE	CAT. #
TATTOOS (SET)	\$9.95	43765



PowerBook 30 x 50 SCSI Cable

ITEM	PRICE	CAT. #
POWERBOOK 30 X 50 SCSI CABLE	\$39.95	41752



Laptop Copy Grip

Having a PowerBook on the road is a pleasure when you need to be productive, but sometimes juggling copies, papers, pamphlets and booklets on the makeshift surfaces that you often find yourself can be a pain. Enter the Laptop Copy Grip from Fellowes. Attach it's hook & loop adhesive fastener conveniently to the top, back or edge of your PowerBook and you've got the perfect solution to your problem. It swivels and pivots for comfortable visibility of your documents and can be easily removed when not in use.

ITEM	PRICE	CAT. #
LAPTOP COPY GRIP	\$4.95	49230

PowerBook Accessories

The PowerBook Essentials Travel Kit

(Continued from page 32)

Ordinary 9- or 12-foot extension cord. Electrical outlets are always in the wrong place. The standard PowerBook power brick power supply has a two-prong plug and thus cheap extension cords are safe and effective. Some of the third-party bricks use a three-prong plug and thus require a special extension cord or a three-prong to two-prong adapter - kind of a hassle.

Two standard extension phone cables, an end-to-end joining connector and a two-to-one RJ-11 (duplex) connector (if you have a modem). Same reason: phone jacks are always in the wrong place.

Tools: a Torx T8, T10, and small Phillips head screwdriver will get you into any PB; an all-in-one tool like the APS PB Tool is handiest.

A copy of The PowerBook Companion, 2nd ed., by Rich Wolfson and Sharon Zardetto Aker. It's more detailed than any manual.

A DIN-8 (the round kind as opposed to the rectangular DB-9 style found on Macs up to and including the Mac Plus) to DIN-8 serial cable (often sold as an ImageWriter II cable). This lets you hook to any other Mac with a DIN-8 serial port. As long as one of the Macs is running some version of System 7 and both have AppleTalk turned on, file transfers will be possible.

Hot Tip: Don't neglect backups when you're on the road. Backup to floppies and keep the backup floppies apart from the PowerBook (not in the same case!). If you have a modem, subscribe to CompuServe or AOL and send yourself mail of your day's work while on the road. Your backup will always be ready and waiting.

33
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

APS Brings You the Best in Carrying Cases

We've used and sold a variety of PowerBook carrying cases over the last couple of years, and all have been particularly outstanding values in form, function, price or performance. We were pretty smug about our offerings, when long-time computer luggage manufacturer Valari Calisé came to us and said "But what about protection?" and with that, she introduced us to what we've come to believe is absolutely the best collection of PowerBook carrying cases in the world, and they're made right here in the U.S.A. Premium Cordura nylon or luxurious leather exteriors, expensive nylon zippers, ultra-comfortable carrying handles, heavy-duty hardware and an incredible full inch of high-density, closed-cell, impact-absorbing foam around the entire computer — 'cause protection is what PowerBook luggage is all about, and Calisé computer luggage is the best out there.

Calisé Executive Attaché

The Calisé Executive Attache is arguably the best piece of PowerBook luggage available today. Well thought out and meticulously appointed, this case has everything. Outside, the zippered flap pocket opens to reveal three zippered pockets — one large enough to store important papers and certificates. Another set of pockets for diskettes, business and credit cards as well as pens and pencils also has a key chain hanger and a pocket for a cellular phone. On the opposite side, a three section document valise is gusseted to hold a variety of papers, documents and periodicals. Inside, the PowerBook is protected by Calisé's signature inch of high density closed cell foam with PowerBook retaining straps and a partitioned space for a power supply, cable and accessories. Another pocketed flap has room for PowerBook batteries, more diskettes and another cellular phone... the list of features goes on and on... Heavy duty metal hardware and extra wide shoulder straps, the Calisé Executive Attache in either cordura or leather comes with a lifetime guarantee from Calisé. (12-1/2" x 17-1/2" x 6")

ITEM	PRICE	CAT. #
CALISÉ EXECUTIVE ATTACHÉ (BLACK LEATHER)	\$149.95	42724
CALISÉ EXECUTIVE ATTACHÉ (CORDURA)	99.95	4273(X)
2 = BLACK W/BROWN TRIM		
4 = BLACK W/BLACK TRIM		

Calisé



Calisé Cordura Executive Attaché



Calisé Universal Traveler

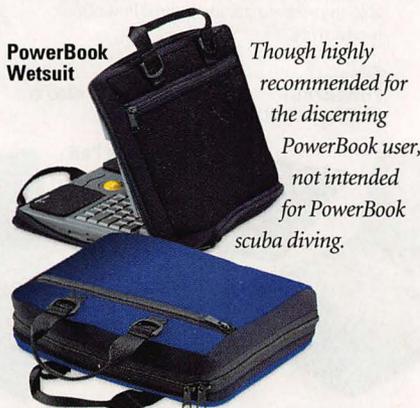


PowerBook Wetsuit

Attractive, yet compact, the Silicon Sports Wetsuit protects your PowerBook from shock, moisture and the elements. Made of the same high-tech neoprene and stretch nylon material that wetsuits are made of, the Silicon Sports Wetsuit supports your PowerBook on a rigid non-slip base and wraps it in attractive two-tone stretch wetsuit material. The zippered panel on the rear allows access to all the connections on the back of the PowerBook 140-180c without opening or removing the Wetsuit wrap. The zippered stretch pocket on the side gives you room for those PowerBook necessities like diskettes, pens and extra batteries.

ITEM	PRICE	CAT. #
POWERBOOK WETSUIT (BLACK)	\$49.95	44430
(BLUE)	49.95	44433
WETSUIT FOR DUO (BLACK)	49.95	44435
(BLUE)	49.95	44436

PowerBook Wetsuit



Though highly recommended for the discerning PowerBook user, not intended for PowerBook scuba diving.

Calisé PowerBook Deluxe

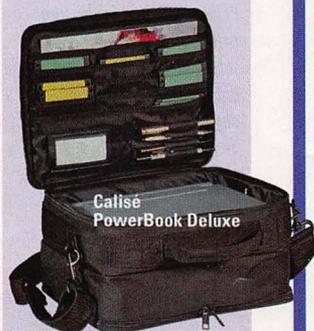
What a great idea! A carrying case with Calisé's incredible protection system that can accommodate both a PowerBook and all it's accessories or a PowerBook and a small mobile printer, or second PowerBook! The PowerBook Deluxe Combo also has room for the pens, pencils, papers and diskettes, that invariably end up bound in the orbit of your PowerBook, but if you carry a second powerbook or printer you may be hard pressed to fit both large power supplies inside. Heavy-duty metal hardware, ultra-wide shoulder strapping, premium nylon zippers and Calisé's ultra comfortable foam neoprene handle all contribute to make this one of the most innovative, compact, yet well constructed pieces of computer luggage available anywhere. (13" x 11" x 7")

ITEM	PRICE	CAT. #
CALISÉ POWERBOOK DELUXE	\$49.95	42722

Calisé Universal Traveler

Providing outstanding protection with a full wrap of 1" high-density closed-cell foam, this remarkable value in PowerBook luggage is one of the most functional traditional briefcase-styled cases I've ever seen. Inside, safety straps retain your PowerBook in complete security. The movable partition keeps the power supply safely separated from the PowerBook. The top flap has tons of room for diskettes, pens, pencils, cables and accessories, and a full length pocket is ideal for carrying papers or file folders. The outside flap pocket has expandable gusseting to accommodate over-sized objects, and the foam neoprene carrying handle is the most comfortable I've ever used. Add to all this the heavy metal hardware and the extra wide shoulder strap, and you've got the most functional PowerBook carrying case with the best integrated PowerBook protection system on the market today! (12-1/2" x 17" x 5")

ITEM	PRICE	CAT. #
CALISÉ UNIVERSAL TRAVELER	\$39.95	42720



34

Our carrying cases make APS and MobilStor drives even more convenient!

APS Carrying Cases

The durable, padded exterior of the APS carrying case is designed to help protect our SR 2000 and SR 1000 series drives while the carrying handles and adjustable shoulder strap make it easy to carry your drive. Extra-spacious interior has separate compartments for cables, disks, manuals, and power supply. Distinctive, striking APS graphic lets others you demand the finest in computer peripherals. (Also good for smuggling that embarrassing old Jasmine drive in and out of the office.)

ITEM	PRICE	CAT. #
APS CARRYING CASE	\$34.95	42760



- Lightweight, stylish, sturdy
- Perfect for all your drive transportation needs – drives, cables, power supply and multiple accessories

MobilStor™ Carrying Case

Once you get a MobilStor, you'll never want to be without it. But it's a rough-and-tumble world out there. Keep your MobilStor drive looking and working like new, and at the same time make it even more convenient to carry around. The MobilStor case not only custom-configured to hold your MobilStor Tape250, MobilStor CD, or MobilStor SyQuest drive, it also has room for your cables, diskettes, power supply and more! Made of rugged, long-lasting nylon, it will give years of service, just like your MobilStor.

ITEM	PRICE	CAT. #
MOBILSTOR CARRYING CASE	\$34.95	42762



Carrying Cases

Travel TIP:

By Steven Bobker

Never let your PB out of your sight. They are easy to steal. Keep an eye on it as it goes through the x-ray machine at airports.

Use commercial software to password lock your PB. All the commercial packages have this feature and great security software is readily available.

Don't use a carrying case that says COMPUTER all over. I use a nondescript bag that will hold 2 180s, spare batteries, a power brick, a Newton (and its stuff), and my books. It's unpadded, so I stuff a few magazines in for padding. One that has the look of a briefcase is OK too.

Let the airport x-ray your PB. The process is harmless. What you don't want is a hand inspection. That's dangerous. I've seen computers dropped and totally destroyed. I've never even heard of any problems caused by x-rays (since it's not possible).

Get the Most Out of Your Newton...



Newton Executive Leather



Use your favorite pen as a Stylus for your Newton or other PDA!

These clever styli let you use your favorite pen with your Newton Message Pad, Expert Pad or other pen-based PDA. Designed to exactly replace the ink cartridge in many popular ink pens, including Cross and MontBlanc, now you can make a strong fashion statement while entering data – without risking damage to the screen.

And, if you just need another stylus around, consider the compact, attractive "Stealth Stylus" from WriteWare. It's compact bullet design allows it to fit conveniently in a pocket or PDA carrying case.

Finally, if you're of a mind to cut down on your burdens, consider the SS 3-way Stylus. A premium pen mechanism, this convenience accessory for your PDA sports a ballpoint pen, a 0.5mm mechanical pencil and a stylus in a single compact package. Easy to use, you just hold the symbol of the tip you prefer towards you as you depress the button, gravity selects the correct tip!

Newton Executive Leather

Calise's Newton Executive Leather case is the best engineered and constructed Newton case I've seen or heard of! Securely protecting Newton, the Newton Executive Leather case provides a home for up to three PCMCIA cards, a bunch of business cards and credit cards and more! Outside, the case has a pocket for your cellular phone or extra batteries on one side as well as a zipper pocket on the other. Carry your Newton in style and keep that precious data well protected. Carry it in a Calise.

(Newton 100 – 5-1/2" W x 9" L x 3-1/2" D)
(Newton 110 – 5-1/2" W x 9" L x 4" D)

ITEM	PRICE	CAT. #
100 – EXECUTIVE LEATHER	\$59.95	42742
110 – EXECUTIVE LEATHER	59.95	42744

Mont Blanc Ballpoint Stylus

Mont Blanc Rollerball Stylus

Stealth Stylus I

Stylus SS 3-Way

Cross & Quill Pen Refill Stylus

ITEM	PRICE	CAT. #
MONT BLANC BALL POINT	\$8.95	44140
MONT BLANC ROLLERBALL	8.95	44141
CROSS/QUILL PEN STYLUS	8.95	44142
STEALTH STYLUS I	9.95	44144
STYLUS SS 3-WAY	19.95	44143



35
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Ergonomic Theory & Practice

by Steven Bobker

You've surely heard of carpal tunnel syndrome or CTS, a true computer-age disease. This extremely painful and ultimately, totally disabling disease (if untreated), has received a lot of press in the last few years. However, as a Mac or Windows user you're at less risk of getting CTS than people who use other systems like DOS or UNIX which have command-line interfaces.

You are, as a GUI user, still at real risk for a large variety of other cumulative trauma disorders or CTDs (the new buzz-acronym). (Sometimes you'll also see CTDs described as RSI or repetitive stress injuries; CTD is a broader term.) Most common seems to be tendonitis of the mouse-hand shoulder. Diagnosing the cause of CTDs is always difficult, but doctors and scientists have made large advances recently.

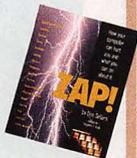
The design of workspace is crucial and the standard guidelines as to distances and positions (found in many books and magazine articles) should be followed as closely as possible. If you notice the onset

(Continued on page 37)

ZAP!

How your computer can hurt you and what you can do about it...

Item	Price	Cat. #
ZAP!	\$9.95	43874



Why would someone in their right mind put headphones on that didn't play anything through them? In fact, I thought this noise cancellation nonsense was a joke! That was until someone put Noise Cancellation Technologies' NoiseBuster headset on my desk for evaluation. I put it on (expecting nothing, you understand), switched on the power and had one of the biggest surprises I've had in years of product evaluation! I was suddenly in silence. Not the silence of ear plugs in your ears, or wearing industrial-style hearing protectors, but the silence of a near complete elimination of background noise. Suddenly, the nearly inaudible (but aggravating) buzz of fluorescent lights disappeared. The hum of seven SCSI devices was gone. The fan noise from my monitor and computer silenced. It was amazing. Even more amazing, I could still hear most non-background noise clearly. Someone in my office could carry on a normal conversation with me at normal conversational tones, but the irritating and fatiguing background noise of a normal office environment was gone.

Noise cancellation technology isn't new. It's been available for military and professional applications for several years. Private pilots have begun using noise cancelling radio headsets to eliminate the constant drone of the propeller without hiding important changes in engine pitch, the irregular sounds of improper operation or radio communication. Passive ear defenders only protect you against higher

frequency noise, but the NoiseBuster allows speech and warning signals to pass clearly through to you while offensive low-frequency noise is effectively attenuated.



The way it works, while technically complex, is conceptually quite simple. The noise cancellation unit samples the background noise in the environment. For audible noise, the sound pressure wave patterns are sensed and fed to a proprietary digital circuit which matches the frequency of the background noise (and low frequency vibration) with sound of the same frequency, but with exact opposite wave form from the background noise, and plays this "anti-noise" back through the headset. The result is the elimination of the matched background noise.

The headphones with this unit are light and of superb quality. In fact, one of the nicest things about this system is the ability it gives you to play CD, radio or tape programs through the headset while it's cancelling the background noise. It's the closest thing I've found to a studio quality sound environment, right there at your desk, at home at night or on an airplane (in fact, you may have seen similar products sold through airline magazines to reduce the fatiguing background noise travelers experience in commercial jets).

If you work in an office or at home and are bothered by the background noise created by the office equipment required in your environment, you should try the NoiseBuster from Noise Cancellation Technologies. It will help you work more productively in a less fatiguing environment.

ITEM	PRICE	CAT. #
NOISEBUSTER HEADSET	\$99.95	42711



MacPro Plus

The one keyboard we come back to is made by Key Tronic, one of the oldest names in computer keyboards. Compatible with both ADB and MacPlus keyboard interfaces, this isn't one of those rinky-dink, lightweight keyboards from some aftermarket sources. Key Tronic makes a solid heavy-duty, full-size keyboard with a great touch.

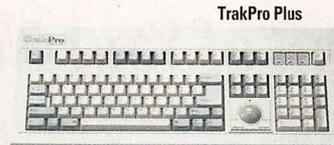
ITEM	PRICE	CAT. #
MACPRO PLUS	\$129.95	42310

Turbo Mouse

In the search for a replacement for our mice, we've tried virtually every input device out there: replacement mice, track balls from many manufacturers, drawing pads, infrared devices and many more. But we keep coming back to the Turbo Mouse from Kensington. The Kensington Turbo mouse is always smooth and precise, even after a year or more of hard use. The Kensington Turbo Mouse is compatible with all ADB devices and keyboards. It can be plugged in anywhere in the ADB chain and has connectors for both ADB in and ADB out.



ITEM	PRICE	CAT. #
TURBO MOUSE	\$109.95	42340



UNImouse Extension

Do you have the same problem I do - the rodent obediently chained to your favorite Macintosh has no room to roam? Are you trying to operate your mouse in the 4" between "important" office memos, your keyboard, and the manual for the latest "easy to use" program? UNImouse is the solution. Attach it to the edge of your desktop or to the edge of your keyboard tray, giving you an extra 8" of space for your mouse to roam or your trackball to track. Best of all, the UNImouse helps you maintain better posture with less strain on arms, shoulders and back. Work more productively, more comfortably with UNI Mouse

ITEM	PRICE	CAT. #
UNIMOUSE EXTENSION	\$19.95	49180



Trak Pro Plus

Tired of trying to juggle a mouse or a trackball and a keyboard around on that too small space on your desk, but still want the feel of quality? Try the Trak Pro Plus from Key Tronic. Not only will you get the best third party keyboard we've found, but you also get a great trackball with a feel like the PowerBook's own.

ITEM	PRICE	CAT. #
TRAK PRO PLUS	\$229.95	42320

Desk Extension and WristPad

Save your wrists on that crowded desktop! The Desk Extension and WristPad 2.5 from Silicon sports allow your keyboard work surface to extend off the desktop yet support those weary wrists. The non-skid metal extension on the Desk Extension slides beneath your keyboard, holding it in place. The integral WristPad supports your wrists in an ergonomically correct position. Save space and type more comfortably with the Desk Extension and WristPad 2.5.

ITEM	PRICE	CAT. #
WRISTPAD	\$9.95	4447(X)
DESK EXTENSION PAD	19.95	4442(X)

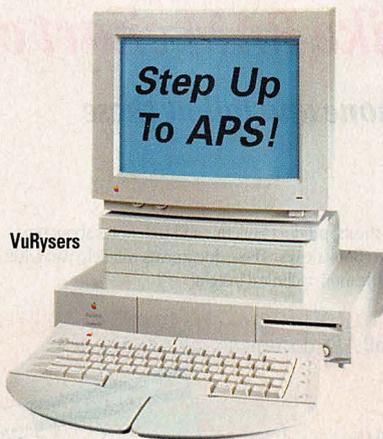
(0) BLACK (3) BLUE

WristPad 2.5



Raise Your Monitor to Optimal Height!

I walked through our office one day and was appalled to see expensive monitors everywhere balanced precariously on boxes, used telephone books and bricks. When I inquired about this insanity, I was informed that it was a lot more comfortable to use the monitor if it was elevated to eye level. Moreover, the problems of fluorescent light glare were drastically reduced by elevating the monitor and reducing the viewing angle. As we had just received a clever new product to evaluate called VuRysers, it seemed I might provide a solution to this craziness. Actually strong, interlocking 1" platforms designed specifically for raising the viewing level of PC monitors, VuRysers are one of those clever, no-tech products that really improve the "quality of life" for those of us who have to live with high-tech. VuRysers stack to form a strong stable platform to raise even heavy 19" and 21" monitors to your ideal viewing height, reducing stress and improving viewability. VuRysers were just the thing to stabilize those precariously elevated monitors in our office. They'll certainly do the same for you.



ITEM	1-6	7-14	15+	CAT. #
VURYSERS	\$4.95	\$4.45	\$3.95	49160

"...I seldom touch the keyboard without them!"

by Adam Engst, Editor of Tidbits
and author of the Internet Starter Kit

As many of you know, I suffer from a mild case of carpal tunnel syndrome, one of the many



conditions collectively called repetitive stress injuries, or RSI, so some people have wondered how I managed to write a book without seriously damaging my hands. It's a good question, and in fact, I can say that my pain level has declined since I started the final chunks of the book after Macworld Boston. How? Handeze gloves. These \$20 finger-less gloves are made from stretch Lycra subjected to a special process called "Med-A-Likra" that expands the individual fibers in a thread, thus reducing the space between threads and working better to hold body heat. The cuffs are double-layer Lycra and help keep the hand in a neutral position while allowing flexibility, unlike wrist braces. The strangest part of the gloves is that they only have four holes for the fingers – the middle finger and ring finger share an opening.

The New England Therapeutic Research Group designed the gloves to help relieve pain in three

specific ways – by providing warmth, support and massage. Nonetheless, the fact is that I can't adequately explain the glove's success for me. I don't care how they work, as long as they do.

Within three days, sitting down at the Mac without the gloves felt wrong. For whatever reason, I quickly became accustomed to the feeling.

You can supposedly machine wash the gloves if you're careful, but I think I'll stick to hand washing. For the fashion conscious, the gloves come in two colors, a melanin-challenged flesh tone and a bluish-grey with dark blue cuffs.

In the final evaluation, I can't say precisely why they work, although I can tell you that I seldom even touch the keyboard without them. They're cheap at about \$20, and if

you're experiencing hand and wrist pain, I think it's worth trying the Handeze gloves. Do note that wearing the gloves doesn't keep you from otherwise abusing your body by not taking breaks or working in a destructive position, ergonomically speaking.

You must get the right size for your hand. Place the right edge of your right hand on the horizontal line of the size chart at the bottom of the page. Now read the distance along the horizontal line from the vertical line to that mark you just made. Your size will be in the box at the right edge of your hand. (See chart below for determining size.)

ITEM	PRICE	CAT. #
HANDEZE GLOVES	\$19.95	493

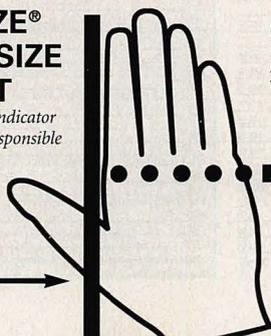
Sample: Medium, blue gloves would be catalog number 49314.

HANDEZE® GLOVES SIZE CHART

This chart is a size indicator only. Consumer is responsible for final fit.

Step 1.

Place your right hand, palm down with the first finger along this line.



Colors:
1 – Blue
2 – Beige

Size:
2 – XSmall
3 – Small
4 – Medium
5 – Large
6 – XLarge

Step 2. Your glove size is the last number covered.

2	3	4	5	6
XS	S	M	L	XL

Custom Work Environments



Soothe Aching Wrists!

When I first put these MouseMitts on, people asked me if I was going to the gym to lift weights. Far from it. What I needed was a wrist support that could relieve the discomfort when I worked on my keyboard for an extended period of time and these really work providing extra therapy for aching wrists. The large pad area, in combination with a Lycra glove body, acts like a gentle wrist brace to provide ergonomic support where it is needed the most. The soft, yet tough vinyl surface, allows the hand to rest or glide safely and securely over the work surface. The wrist is kept comfortably warm, helping to relieve the strain associated with repetitive stress injury and carpal tunnel syndrome. With the open design, your palm will stay cool and your fingers are free. The MouseMitts come in four colors: Black (1), blue (2), red (3) and teal (4) and three sizes: small (0), medium (1) and large (2).

ITEM	PRICE	CAT. #
MOUSEMITTS	\$21.95	494

Sample: Medium, blue gloves would be catalog number 49421.



WorkSmart 5000 Wrist Rest

"Keep your elbows and wrists in line with the 'home row' on your keyboard." – That's what they say it takes to improve posture and reduce strain on the wrists, shoulders and necks of keyboard users. One of the most cost-effective ways to do that is with the WorkSmart 5000 Wrist Rest. Its soft, padded, curvilinear surface minimizes pressure points on your wrists and whisks away moisture from your skin for cool, dry comfort. Adjustable for a variety of work heights and provides a stable, skid-proof support needed to comfortably neutralize wrist, neck and shoulder posture.

ITEM	PRICE	CAT. #
WORKSMART 5000 WRIST REST	\$29.95	49168

Ergonomic Theory & Practice

(Continued from page 36)

of any CTD (typically pain or numbing of a hand or arm), take immediate action. I recently read of an editor who developed a severe CTD. He couldn't figure out the reason as he was working without any problems at a carefully designed custom workstation which had been set up for him by a specialist. The onset of his problem was abrupt. Eventually, he and the consultant realized what had changed. His 14" monitor had been replaced with a 16" monitor. The new monitor was considerably deeper, taking up more of his desk. That didn't change the position of his keyboard, but did change the place he moused in, moving it closer to him. That was the root cause of his problem.

After much treatment and moving his mouse position he has fully recovered.

No one is immune to CTDs. If your kids play lots of video or computer games, insist on proper posture and keep on eye on them. Shut the games down at the first hint of arm or hand pain.



37
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Use the **APS InfoFax Hotline™** for quick & easy information...like RAM chart configurations.

Just use your touch-tone phone and follow these simple steps...

24 hours a day, 7 days a week, you can now order spec sheets, product bulletins and tech notes about our many of our products including APS, MAC and PowerBook drives. These documents will help you select the right product, make the right decision or gain a little more technical insight.

1. To receive an automated fax listing of all APS documents call 800-374-5802 from any Touch-Tone telephone.
2. Follow the automated instructions and the list will be faxed to you with a few minutes.
3. When you have made your selection, you must call from a fax machine with a handset or fax modem with an attached telephone. The number is 816-920-4150. Follow the automated instructions to order up to two documents at a time.
4. Both the "Document Order" and "Directory Lines" have on-line "How InfoFax Works" operating instructions and you are prompted throughout the process.

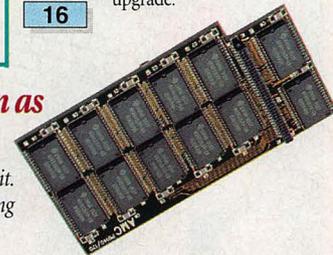


The numbers listed below can easily be used to receive RAM configurations via our InfoFax system. Just use your touch-tone phone and follow the simple instructions provided.

- 42000 Mac Plus RAM
- 42001 Mac SE RAM
- 42002 Mac SE/30 RAM
- 42003 Mac IICI, IICX, RAM
- 42004 Classic RAM
- 42005 Classic II RAM
- 42006 Mac IIFX RAM
- 42007 Mac IISI RAM
- 42008 Mac LCIII/Quadra 605 RAM
- 42009 Centris/Quadra 610/660 RAM
- 42010 Centris/Quadra 650 RAM
- 42011 PowerBook 100 RAM
- 42012 PowerBook 140-180C RAM

- 256K**
- 512K**
- 1**
- 2**
- 4**
- 16**

RAM configurations will show you different options for upgrading your system. Match them with the price chart below to figure the overall cost of your upgrade.



RAM market prices are extremely volatile, changing as often as several times each day. Please call for the very latest prices.

Adding memory to a Mac is sometimes confusing. Often, it's necessary to remove memory in order to add it. New Macs typically use 72-pin SIMMs that can be added in variable increments, allowing easier upgrading and more possible configurations.

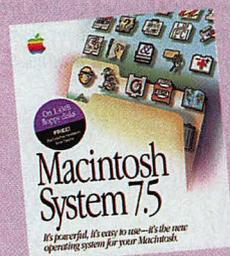
System 7.5

Easter Egg

by Steven Bobker

System 7.5 looks to be as full of deliberately hidden surprises as previous versions. In computer-speak, these are known as "Easter eggs." Most of System 7.5's eggs are rather boring, but this one is as good as anything from Microsoft when they were the world Easter egg champs.

To view this gem in 7.5, you need open a document in a "clip-able" text processor. Simple Text will work fine. Type the words "secret about box" and select them. Drag them to the desktop. Something very wonderful will happen to your text clipping. You can win, it'll play forever, and you just need to click to get out. As a plus, this Easter egg demonstrates the magic of 7.5's Drag & Drop feature. Won't it be neat when you can drag-and-drop from all applications?



Apple System 7.5

Apple's newest operating system takes Macintosh productivity to a new level. Apple's latest power-user applications, including PowerTalk, PC Exchange, and QuickDraw GX are now part of System 7.5. Mac professionals and novices alike will appreciate the new features that make the Mac even easier to use. Macintosh Easy Open, Launcher, desktop printer icons and advanced Drag & Drop features all help make the world's most intuitive computer interface even better.

ITEM PRICE CAT. #

APPLE SYSTEM 7.5 \$99.95 41303

38
800-354-1213
24 Hours a Day, 7 Days a Week
Winter '95

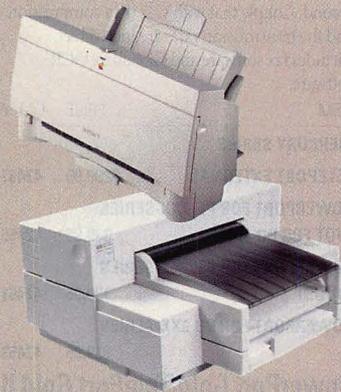
Upgrade To	Kit #	Kit Includes	Qty. of kits	Price	
MAC PLUS	2MB 50101	2-1MB SIMMs	1	\$99.95	
	4MB 50101	4-1MB SIMMs	2	199.95	
MAC SE	2MB 50201	2-1MB SIMMs	1	99.95	
	4MB 50201	4-1MB SIMMs	2	199.95	
MAC CLASSIC	4MB*	2-1MB SIMMs	1	99.95	
1MB on motherboard *You must have memory expansion card					
MAC CLASSIC II	4MB 50401	2-1MB SIMMs	1	99.95	
	6MB 50402	2-2MB SIMMs	1	179.95	
2MB on motherboard	10MB 50404	2-4MB SIMMs	1	359.95	
MAC COLOR CLASSIC/PERFORMA 200	6MB 50401	2-1MB SIMMs	1	99.95	
	8MB 50402	2-2MB SIMMs	1	179.95	
MAC SE/30	4MB 50501	4-1MB SIMMs	1	199.95	
	8MB 50501	8-1MB SIMMs	2	299.95	
	16MB 50504	4-4MB SIMMs	1	719.95	
	32MB 50504	8-4MB SIMMs	2	1439.95	
	64MB 50516	4-16MB SIMMs	1	2795.95	
	128MB 50516	8-16MB SIMMs	2	5599.95	
MAC IICX	4MB 50601	4-1MB SIMMs	1	199.95	
	8MB 50601	8-1MB SIMMs	2	399.95	
	16MB 50604	4-4MB SIMMs	1	719.80	
	32MB 50604	8-4MB SIMMs	2	1439.95	
	64MB 50616	4-16MB SIMMs	1	2799.95	
	128MB 50616	8-16MB SIMMs	2	5599.95	
MAC IICI	4MB 50701	4-1MB SIMMs	1	199.95	
	8MB 50701	8-1MB SIMMs	2	399.95	
	8MB 50702	4-2MB SIMMs	1	359.95	
	12MB 50701 / 4-1MB SIMMs /	1 /	199.95		
	50702	4-2MB SIMMs	1	359.95	
	16MB 50702	8-2MB SIMMs	2	719.95	
	16MB 50704	4-4MB SIMMs	1	740.	
	20MB 50701 / 4-1MB SIMMs /	1 /	199.95		
	50704	4-4MB SIMMs	1	719.95	
	32MB 50704	8-4MB SIMMs	2	1439.95	
	64MB 50716	4-16MB SIMMs	1	2799.95	
	72MB 50702 / 4-2MB SIMMs /	1 /	359.95		
	50716	4-16MB SIMMs	1	2799.95	
	128MB 50716	8-16MB SIMMs	2	5599.95	
MAC IICI	4MB 50801	4-1MB SIMMs	1	199.95	
	8MB 50801	8-1MB SIMMs	2	299.95	
	16MB 50804	4-4MB SIMMs	1	719.95	
	32MB 50804	8-4MB SIMMs	2	1439.95	
MAC IIX	4MB 50801	4-1MB SIMMs	1	199.95	
	8MB 50801	8-1MB SIMMs	2	299.95	
MAC LC	4MB (6MB)	50901	2-1MB SIMMs	1	99.95
2MB on motherboard 6MB (8MB)	50902	2-2MB SIMMs	1	179.95	
	10MB 50904	2-4MB SIMMs	2	359.95	
MAC LC II					
PERFORMA 400, 10MB (12MB)	50904	2-4MB SIMMs	1	359.95	

Upgrade To	Kit #	Kit Includes	Qty. of kits	Price
MAC IISI	5MB 51001	4-1MB SIMMs	1	179.95
1MB on motherboard	9MB 51002	4-2MB SIMMs	1	359.95
	17MB 51004	4-4MB SIMMs	1	719.95
	65MB 51016	4-16MB SIMMs	1	1439.95
MAC QUADRA 700	8MB 51101	4-1MB SIMMs	1	\$199.95
4MB on motherboard	20MB 51104	4-4MB SIMMs	1	719.95
	68MB 51116	4-16MB SIMMs	1	2799.95
MAC QUADRA 900/950	4MB 51201	4-1MB SIMMs	1	199.95
WG95	8MB 51201	8-1MB SIMMs	2	299.95
	12MB 51201	12-1MB SIMMs	3	599.95
	16MB 51201	16-1MB SIMMs	4	799.95
	20MB 51201 / 4-1MB SIMMs /	1 /	199.95	
	51204	4-4MB SIMMs	1	719.95
	32MB 51204	8-4MB SIMMs	2	1439.95
	48MB 51204	12-4MB SIMMs	3	2159.95
	64MB 51204	16-4MB SIMMs	4	2879.95
	72MB 51201 / 8-1MB SIMMs /	2 /	299.95	
	51216	4-16MB SIMMs	1	2799.95
	84MB 51201 / 4-1MB SIMMs /	1 /	199.95	
	51204 / 4-4MB SIMMs /	1 /	719.95	
	51216	4-16MB SIMMs	1	2799.95
	128MB 51216	8-16MB SIMMs	2	5599.95
MAC IIVI	8MB 51301	4-1MB SIMMs	1	199.95
MAC IIVX	12MB 51302	4-2MB SIMMs	1	359.95
PERFORMA 600	20MB 51304	4-4MB SIMMs	1	719.95
4MB on motherboard	68MB 51316	4-16MB SIMMs	1	2799.95
LC II/LC 475 through 630	8MB 51504	1-4MB SIMMs	1	169.95
4MB on motherboard	12MB 51508	1-8MB SIMMs	1	349.95
	20MB 51516	1-16MB SIMMs	1	599.95
	36MB 51532	1-32MB SIMMs	1	1199.95
LCIII has 1 slot that allows you to use any of size 80ns 72-pin SIMMs				
CENTRIS 610	8MB 51604	1-4MB SIMMs	1	169.95
Q 610, Q 660AV, WGS 60				
4MB on motherboard	12MB 51608	1-8MB SIMMs	1	349.95
	20MB 51616	1-16MB SIMMs	1	599.95
	36MB 51632	1-32MB SIMMs	1	1199.95
Centris 610 has 2 slots that allows you to use any combination of sizes of 80ns 72-pin SIMMs				
CENTRIS 650	8MB 51704	1-4MB SIMMs	1	169.95
4MB on motherboard	12MB 51708	1-8MB SIMMs	1	349.95
	20MB 51716	1-16MB SIMMs	1	599.95
	36MB 51732	1-32MB SIMMs	1	1199.95
Centris 650 has 4 slots that allows you to use any combination of sizes of 80ns 72-pin SIMMs				
CENTRIS 650	12MB 51704	1-4MB SIMMs	1	169.95
8MB on motherboard	16MB 51708	1-8MB SIMMs	1	349.95
	24MB 51716	1-16MB SIMMs	1	599.95
	40MB 51732	1-32MB SIMMs	1	1199.95
Centris 650 has 4 slots that allows you to use any combination of sizes of 80ns 72-pin SIMMs				

Upgrade To	Kit #	Kit Includes	Qty. of kits	Price
QUADRA 800/900AV, WGS 80	12MB 51804	1-4MB SIMMs	1	199.95
8MB on motherboard	16MB 51808	1-8MB SIMMs	1	349.95
660AV	24MB 51816	1-16MB SIMMs	1	599.95
4MB on motherboard	40MB 51832	1-32MB SIMMs	1	1199.95
QUADRA 800 has 4 slots that allows you to use any combination of sizes of 70ns 72-pin SIMMs				
POWERBOOK MEMORY				
Capacity Price Cat. #				
POWERBOOK 100 2MB soldered on motherboard				
2MB		\$99.95		40262
4MB		199.95		40264
6MB		299.95		40266
POWERBOOK 140 2MB soldered on motherboard				
2MB		99.95		40242
4MB		199.95		40244
6MB		279.95		40246
POWERBOOK 145 2MB soldered on motherboard				
2MB		99.95		40242
4MB		199.95		40244
6MB		279.95		40246
POWERBOOK 145B, 160 4MB soldered on motherboard				
4MB		179.95		40284
6MB		299.95		40286
8MB		349.95		40288
10MB		449.95		40289
POWERBOOK 165, 1650 4MB soldered on motherboard				
4MB		199.95		40284
6MB		299.95		40286
8MB		349.95		40288
10MB		449.95		40289
POWERBOOK 170 2MB soldered on motherboard				
2MB		99.95		40242
4MB		199.95		40244
6MB		279.95		40246
POWERBOOK 180 4MB soldered on motherboard				
4MB		179.95		40264
6MB		299.95		40266
8MB		349.95		40268
10MB		449.95		40269
POWERBOOK 180C 4MB soldered on motherboard				
4MB		199.95		40284
6MB		299.95		40286
8MB		349.95		40288
10MB		449.95		40289
POWERBOOK DUO 210, 230, 250, 270C, & 280C 4MB soldered on motherboard				
4MB		199.95		40274
6MB		379.95		40278
POWERBOOK 500 SERIES 4MB soldered on motherboard				
4MB		249.95		40268
6MB		449.95		40260
16MB		849.95		40262

SIMM availability and pricing subject to change without notice.

Refills for HP Deskjet, DeskWriter & Apple StyleWriters



Inkjet printers are great low-cost, high-quality printers. It's just that the cost of those inkjet refill cartridges is sky high! Now for about half the cost of an original printer cartridge, replenish your inkjet printer with water-resistant ink that produces clear, crisp, laser quality impressions so your correspondence and other documents leave a good impression. Save money, save the environment. Print inexpensively in two colors. Our HP refills work with HP DeskJet and DeskWriter and other printers based on the same engines. Apple

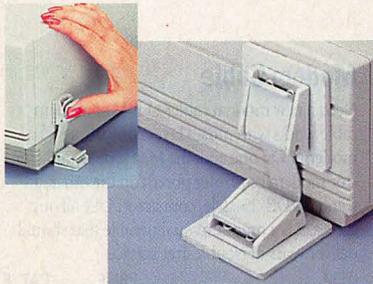
Refills work with Apple StyleWriters (I & II) and Canon BJ-10e and BJ-200.

ITEM	COLOR	PRICE	CAT. #
HP STANDARD REFILL	BLACK	\$9.95	41251
HP STANDARD REFILL	BLUE	9.95	41254
HP HIGH CAPACITY REFILL	BLACK	19.95	41256
HP HIGH CAPACITY REFILL	BLUE	19.95	41257
APPLE REFILL	BLACK	9.95	41258
APPLE REFILL	BLUE	9.95	41259

ThumbLock™

Quake- and shake-proof your PowerBook or desktop Mac. ThumbLock safety fasteners, used by both the state of California and Apple Computer to protect their Macs, secure delicate computer equipment when the "big one" hits.

ITEM	PRICE	CAT. #
T-100 (UP TO 50 LBS.)	\$6.95	40160
T-200 (UP TO 100 LBS.)	7.95	40162
T-400 (UP TO 200 LBS.)	9.95	40164



Print the labels you need on all kinds of label stock with LabelWriter XL Plus

CoStar LabelWriter Labels

Description	Quantity Per Box/Pack	Price Per Box/Pack	APS CoStar #	Cat. #
WHITE ADDRESS LABELS - Permanent adhesive, ideal for addressing, shipping, bar coding.				
1-1/8" x 3-1/2", 130 labels/roll	260	\$9.95	30251TEN	43550
1-1/8" x 3-1/2", 350 labels/roll	700	19.95	30252TEN	43551
1-1/8" x 3-1/2", two-up, 700 labels/roll	700	19.95	30253TEN	43552
CLEAR ADDRESS LABELS - Permanent adhesive, ideal for addressing, shipping, bar coding.				
1-1/8" x 3-1/2", 130 labels/roll	130	9.95	30254TEN	43553
SHIPPING LABELS - Permanent adhesive, ideal for shipping, bar codes, prescriptions. (LabelWriter II Plus only)				
1-1/8" x 3-1/2", 300 labels/roll	300	19.95	30256TEN	43555
DISKETTE LABELS - Perm. adhesive, ideal for 3.5" diskettes. (LabelWriter II Plus only)				
2-1/8" x 2-3/4", 100 labels/roll	200	9.95	30257TEN	43556
LABELWRITER II PLUS SAMPLER PACKS - Includes a sample roll of each label stock				
Label Sampler, Mac Version	49.95	30249	43560	

CoStar LabelWriter XL Plus

Printing envelopes and labels with a dot matrix or laser printer is a thankless chore that all of us abhor. Setting up a label format is a hassle; positioning envelopes in the printer wastes time, envelopes and patience. We've tried (and sold) a number of other manufacturers' label printers, and we keep coming back to the CoStar LabelWriter XL Plus for our own label printing needs. Print on label stock up to 2.25" wide with near laser resolution of 203 dpi! CoStar's software is absolutely the best, most intuitive available. Merge your data files easily to produce labels, include graphics, keep yourself organized... just a few of the sophisticated chores the CoStar LabelWriter XL Plus helps you do.

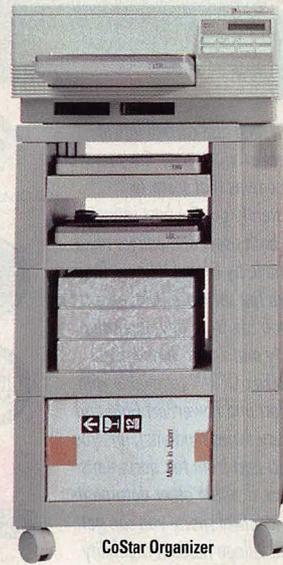
Don't like the look of stick-on labels? Try our clear label printer labels. Print in any font, size or typestyle. Apply the label and,



voilà, it disappears! Ideal for stationery, envelopes, enclosure cards and business mail - anywhere appearance is important.

ITEM	PRICE	CAT. #
LABELWRITER XL PLUS USES UP TO 1-1/8" X 2-1/4" LABELS	\$239.95	43540
SAMPLER PACK MAC	49.95	43560

Organizers, Printers & Supplies



CoStar Organizer

Organizer™ Carts

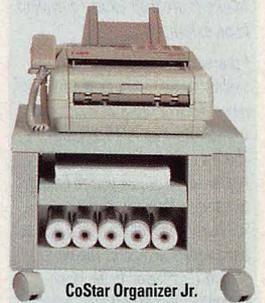
Finding a place to organize all the gear and accessories that you need for your laser printer or fax machine can be quite a chore. Small tables never have enough storage and copier stands never seem to quite fit the larger footprint of many laser printers. Now you can end that mess and clutter around your laser printer with the Organizer and Organizer Jr. from CoStar. Shelves provide plenty of room to store extra envelopes, paper and toner cartridges. Four carpet casters make the organizer easy to move as your needs change.

(Organizer-17.5" W x 29" H x 18.75" D, 45 lbs.)
(Organizer Jr.-17.5" W x 12" H x 18.75" D, 20 lbs.)

ITEM	PRICE	CAT. #
ORGANIZER	\$149.95	43570
ORGANIZER JR.	79.95	43575

Is it true that creative people are a little less organized? While you formulate a creative answer to this question, consider some of the most popular products we've added to our line in years - Organizer Carts.

These organizers help keep your laser printer, fax or copy machine areas organized - and they're a great place to stuff all the paper, toner, supplies and junk that inevitably accompany these workplace basics.



CoStar Organizer Jr.

39
800-354-1213
24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Modems

PowerPort/ TelePort Gold

by Steven Bobker

The slowest modem you should even consider buying today is one capable of data and fax transmission at 14,400 (14.4) bps. Anything slower will just cost you time and money.

The Global Village PowerPort and TelePort Gold are established and highly reliable modems. The PowerPorts are meant for internal installation in PowerBook 100 through 180c computers, while the TelePorts are their exact equivalent in an external case.

I prefer these models to their slightly faster, more expensive, and newer Mercury cousins which can transfer data up to 19,200 bps. There's little current use for that higher speed unless you're linking to another Mercury, and its v.32terbo standard for 19.2 has not been widely accepted. The next standard expected to be widely accepted (almost certainly in early 1995) is v.34 which allows 28,800 bps communications. The only reason I can see for buying a PowerBook Mercury is they come in versions, unlike the Gold, for 500-series PowerBooks and Duos.

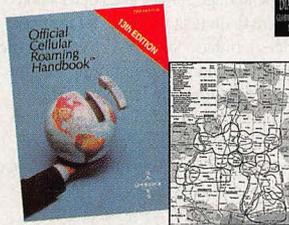
Installation of both Gold models is easy. The external merely needs a hardware-handshaking cable, and the internals fit right into PowerBooks once you open the case. While dealer installation is recommended for warranty reasons, no user should have a problem doing it alone.

Both modems come with good basic software, which is reliable, and doesn't conflict with any of my 63 current extensions. It puts useful progress meters in the menu bar. GlobalFax OCR is also included. The fax software is intuitive and easily the best I've seen on any Mac. Leave it on all the time and you don't need a standalone fax. The OCR portion is OK, but not quite equal to the best standalone packages (like Xerox TextBridge).

You shouldn't have to pay much attention to your modem; it should just do its job. The PowerPort and TelePort Gold meet that requirement with flying colors.



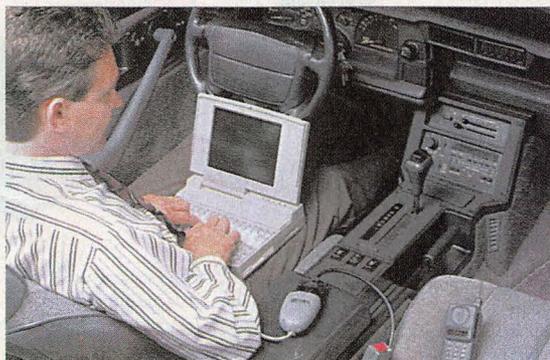
We've seen and carried lots of modem products over the years, but the modems that seem to consistently get the best ratings from both users and editors alike are made by Global Village. Their superb fax software (GlobalFax™), lets you fax from any application quickly and easily. Innovative GlobalFax OCR™ (available with TelePort and PowerPort Gold and Mercury series modems), lets you extract text from fax documents and use it within other documents. With identical specs, you can get Global Village modem capability inside your PowerBook with the PowerPort series modems, or from stylish desktop units with TelePort series modems. Each is available in Mercury and Gold versions.



Official Cellular Roamers Handbook

The definitive resource on cellular roaming, the Official Cellular Roamer's Guide provides hundred of pages of listings and maps of service areas for virtually all of North America and the Caribbean, A&B system roamer numbers, customer assistance numbers, roamer charges and rules vital to anyone who travels with a cellular phone.

ITEM	PRICE	CAT. #
OFFICIAL CELLULAR ROAMERS HANDBOOK	\$12.95	43878



Cellular/Data Hookup

We've tried several cellular modem links from different vendors and not been able to make them work satisfactorily. That's why I was skeptical when ORA Electronics asked us to try their new Cellular Data link. Well, I was sold. It not only works, but on a recent trip to the west coast, worked better

Now available for PB Duo and PB 5XX Series!

TelePort/PowerPort Mercury

v.32terbo compliance allows the Mercury series to communicate at an incredible 19,200 bits per second. Couple that with v.42 data compression and the transmission rates are incredible! Includes fax software and GlobalFax OCR software.

ITEM	PRICE	CAT. #
MERCURY SERIES		
TELEPORT EXTERNAL	\$299.95	42457
POWERPORT FOR PB 1XX-SERIES (NOT FOR PB 100)	339.95	42455
POWERPORT FOR PB 2XX-SERIES (DUOS)	339.95	42451
POWERPORT FOR PB 5XX-SERIES	339.95	42453

PowerPort Gold/TelePort Gold II

The new PowerPort Gold/TelePort Gold II is the compact, inexpensive way for desktop Macs and PowerBooks to communicate at the widely-implemented 14,400 bits-per-second (bps) speed with V.42bis data compression. Gold models are ideal for intensive users of dial-in network-access products. The PowerPort Gold/TelePort Gold II fax/modem comes with GlobalFax OCR software for converting received faxes into editable text.

ITEM	PRICE	CAT. #
POWERPORT GOLD	\$249.95	42450
TELEPORT GOLD II	139.95	42456



TurboDialer

TurboDialer can liberate you forever from misdialing phone numbers by dialing the correct number every time right from your Mac. Use this product everyday from all your favorite applications: DayMaker, Excel and even QuickMail. TurboDialer works from any telephone that will accept DTMF, (Dual Tone Multi Frequency) or Touch Tone signaling, which means TurboDialer even works with most key and PBX systems. TurboDialer also works with most of the "address book" or personal information management software packages. TurboDialer comes with a Dialing INIT called "DirectDial" that works within most any program with just the stroke of a "hot-key." TurboDialer allows you to turn off dialtone sounds with the flick of a switch on the side of the dialer.

ITEM	PRICE	CAT. #
TURBODIALER (GRAY)	\$49.95	42445

Desktop Dialer



Desktop Dialer™

End the drudgery of manual dialing! Turn your Mac into an automatic telephone speed dialer with Desktop Dialer!

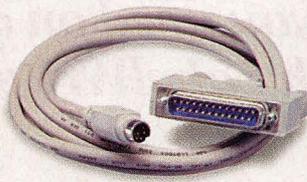
Giving you the convenience and speed of automatic dialing right from your Mac desktop, the Desktop Dialer makes dialing easy and intuitive. Simply highlight the number you want to call and press a key. Desktop Dialer automatically and accurately dials the number through the ADB port (not through the speaker). It works with any one- or two-line analog phone system (does not work with most office PBX or key systems).

ITEM	PRICE	CAT. #
DESKTOP DIALER	\$49.95	42440

Modem Cable

Need a new modem cable? Our Mac modem cable works with most Hayes compatible modems. On one end, the Mac serial connector (for modem or printer ports), on the other, a standard DB-25-style connector. Like all our cables, it is a premium quality cable that should deliver years of trouble-free service.

ITEM	PRICE	CAT. #
MODEM CABLE	\$9.95	41740



Communications on the go!

than the land lines! As easy as connecting it to the data port of your cellular phone and plugging in the telephone line from your modem, ORA's Cellular/Data link must be ordered for the specific cellular phone that you use (not all phones support data communications). I use mine with a Global Village Mercury Duo modem and find that your modem really needs to support MNP 10 protocol for satisfactory operation. The phone I use is an OKI 1150. Though the documentation specifies that the ORA Cellular/Data Link only supports speeds up to 2400baud, I've used it quite satisfactorily at 19.2Kbaud. If you need to send faxes or hook into your data network while on the go, the Cellular/Data Link may be just the ticket.

CELLULAR/DATA HOOKUP	PRICE	CAT. #
MOTOROLA FLIP PHONE	\$199.95	42460
MOTOROLA 8000/9000 PHONE	199.95	42461
OKI 900 OR AT&T 3730 PHONE	199.95	42462

40
800-354-1213

24 Hours a Day, 7 Days a Week
Winter '95



Bridge the gap with Coactive Connector

Coactive Connector

When we needed a quick and easy way to share files on one of our accounting PCs with our Macs, we discovered Coactive. Coactive makes sharing files and printers among Macs and PCs work the way it should – easily! So easily, in fact, you can connect two computers in less than five minutes – guaranteed. Just plug a Coactive Connector into the printer port of each Mac or PC and link them together with a phone cable. There's nothing new to learn. Both machines use native commands to share files between Macs and PCs or let your PC print to your laser printer – things that used to be difficult are now made simple.

Coactive works with existing AppleTalk networks. Get one Coactive Connector package to connect one PC to one Mac. If you already have an AppleTalk network, buy the Coactive Connector DOS/Windows. Everything is included in the box: hardware, software and phone cord.

ITEM	PRICE	CAT. #
COACTIVE CONNECTOR		
DOS/WINDOWS	\$149.95	43429

Now you're on line, no matter where you are

Konexx Kit

The Konexx Kit is a must for PowerBook or PC laptop users who travel a lot, telecommunicating with their computers. The Konexx Kit has all the little tools, connectors and attachments to make almost any telephone system work with a modem. The kit comes in a small, neat carrying case that includes a 7' standard modem cable, an adapter cable with two alligator clips leading to an RJ-11 plug, a small combination phillips and standard screwdriver, a duplex adapter, a Merlin phone system adapter, a spare battery and the Konexx Koupler plus a model 203 acoustic coupler for telecommunications at up to 9600 baud from even a cellular phone! With this kit and a little ingenuity, you have everything you need to telecommunicate from almost anywhere there's a telephone. Never get caught again without a way to send that important fax to your customer, or pick up your E-mail from the office. The Konexx Kit lets you keep in touch, no matter where you are.

The Konexx Koupler is available separately if you don't need or want everything in the kit. The 9600 baud acoustic coupler lets you use virtually any telephone handset with your computer modem for telecommunicating.

ITEM	PRICE	CAT. #
KONEXX KIT	\$149.95	42430
KONEXX KOUPLER	99.95	42436

Konexx Kit



Konexx Connector 112



Konexx Connector 112

If you use an office key system or PBX and find it difficult to telecommunicate because no one is willing to run you a separate line to that 12th floor office, or you find yourself staying in hotel rooms with unfriendly telephone systems, the Konexx Connector 112 is the product for you. By simply plugging the Connector 112 between the handset and the base unit, you can use that fancy office or hotel phone unit to seamlessly telecommunicate from your desktop computer or PowerBook. When you're not telecommunicating, the phone works normally, auto-switching from voice to data modes. Use the Konexx Connector 112 with the supplied

power adapter from your desk, or when you travel just use the Connector 112's internal battery.

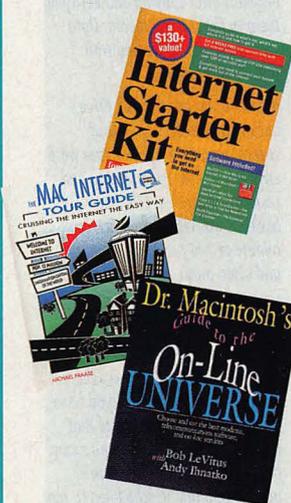
The Konexx Connector 112 works with most desktop modem and PowerBook modem configurations. It DOES NOT work with line-powered modems, however. The Konexx Connector 112 is a high-quality product recommended by major laptop/notebook, fax, modem and software manufacturers around the world. It carries a two-year manufacturer's warranty.

ITEM	PRICE	CAT. #
KONEXX CONNECTOR 112	\$99.95	42434

Now Open 24 Hours a Day, 7 Days a Week!!



Ever get caught overnight in the George Carver Inn in Minneapolis, Kansas, trying to telecommunicate with your office? Of course, it's not just there, it's any other nice little motel in any other nice little town anywhere in the world. Face it, those fancy phone systems with the data-ports just aren't part of standard road-side accommodations. I know, I've stayed in a lot of them. More times than I care to remember, I've been out looking for an all-night Radio Shack (spelled t-r-u-c-k-s-t-o-p) in places like Bourbon, Missouri or Bensonville, Tennessee so that I could get enough parts to "fix" the motel's phones. All I wanted to do was use my portable computer to call out, but often, it just wasn't meant to be. The good news is that we've found the solution with our Konexx Kit.



Explore the On-Line Universe with a Global Village modem. Learn how with these books on the world of "on-line" (see Books – pages 43-47).

41
800-354-1213

24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

Retrospect

By Steven Bobker

You need a great backup program. Not "might" need. Do need. Apple should be the provider; great backup features should be in the System software. Since they're not, and since Apple doesn't seem inclined to add them, you need a standalone package.

Retrospect stands head and shoulders above every other backup package ever released. It's fast, totally reliable, efficient, capable of automatic and remote operation, and, now in version 2.0, simple to use.

Retrospect 2.0 is easy! Operation, including the all-important script creation, is as automated as possible and nearly foolproof.

The easier a backup program is to use, the more regular use it will get. No program is easier to use for backing up than Retrospect once it's set up. Even straight Finder copying is more difficult. Retrospect supports an enormous range of backup media from floppies to all manner of removable media (SyQuest, Bernoulli, Optical, Floptical, etc.) and every tape drive and format. It's a true jack-of-all-backup-trades.

Retrospect isn't limited to backing up your work. It can also archive material very efficiently, deleting originals after copying and verifying them to the storage media. Data security is also addressed with password protection.

In tests using an APS DAT drive, backup and restore speeds of several megabytes per minute were easy to achieve. Even picking and restoring individual files from backups was relatively quick (a minute or two per file, maximum, and often much, much faster).

With additional software (Retrospect Remote), it's possible to back up any Mac on a local network. This is practical if your network is Ethernet or of similar speed, but if you have an AppleTalk net, beware of that first full backup — it can take many hours. Subsequent updates are quicker and can be scheduled to run automatically when the Macs are otherwise idle.

The manual is a model of its kind. Do read this one, if for no other reason than the excellent advice on specific backup strategies. And do use Retrospect to back up frequently.

42

Outside the US & Canada

1-816-920-4109

Winter '95

EtherWave Cards

EtherWave from Farallon is the biggest thing to hit the Mac networking scene since their PhoneNet products a number of years ago. Daisy-chainable EtherWave lets you add that "just one more" workstation without running expensive additional wiring. Connect a PowerBook or Newton and get great Ethernet operation and performance from even the "difficult-to-network" products.

EtherWave Cards

EtherWave cards for the Mac LC and NuBus machines provide what has heretofore been unavailable to Mac networks, daisy-chainable 10Base-T Ethernet. NuBus versions fit the Mac II, Centris and Quadra. Mac LC models fit the Mac LC, si and Performa.

Modular Plug Crimp Tool

This modular crimp tool is better than most of the tools we've seen and used — at up to twice the price! With cutting and stripping blades for 4, 6, and 8 conductor silver skin, crimping dies for RJ11/15 connector heads, and RJ45 connector heads as well as heavy duty action and the "feel" of a quality tool, this is the one tool you need to add to your network and telephone armamentarium.

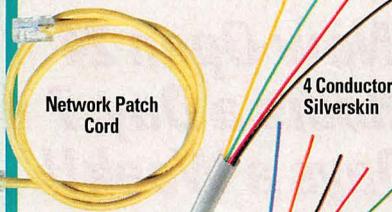
ITEM	PRICE	CAT. #
CRIMP TOOL	\$49.95	42752



Crimp Tool

Network Patch Cords

ITEM	PRICE	CAT. #
3'	\$7.95	41780
6'	9.95	41782
20'	11.95	41784



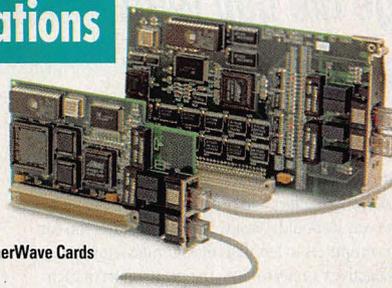
Network Patch Cord

4 Conductor Silverskin

8 Conductor Silverskin

Connector Plugs

Add Ethernet where you need It... Easily!



EtherWave Adapters

EtherWave Adapters

These amazing EtherWave adapters let you connect (daisy-chain) PowerBooks, slotless Macs, LocalTalk printers or Newtons onto your existing 10Base-T Ethernet network. Just plug the adapter into the LocalTalk port on your computer and connect the adapter to the network. It's that easy! No software installation is required (an optional high-speed serial driver is available for slotless Macs and PowerBooks).

ITEM	PRICE	CAT. #
NUBUS ETHERWAVE CARD	\$189.95	42700
LC ETHERWAVE CARD	189.95	42701
ETHERWAVE PB ADAPTER	299.95	42702



Apple AAUI

Connecting those EtherNet-capable Macs to a 10Base-T Ethernet network used to require an expensive AAUI to interface with your installed Ethernet network, but not any more! Our inexpensive Apple Ethernet transceiver costs just \$57! Fully compatible with virtually all 10Base-T Ethernet networks, this Apple Ethernet Transceiver is IEEE 802.3 compliant, supports a 10MBPS transfer rate, provides an LED indicator of link integrity and has full EMI/RFI FCC Class B certification. Now, connect your Quadra, Centris, PowerMac, Duo Dock or 500 series PowerBook easily and without spending an arm and a leg!

ITEM	PRICE	CAT. #
APPLE AAUI	\$59.95	42750

4 Conductor Silverskin

If you're setting up a telephone or LocalTalk network, cutting patch cords of just the right length really improves your results. Our 4-conductor shielded Silverskin cable works with our modular crimp heads and crimp tool to ideally customize your network. (500 ft. spools)

ITEM	PRICE	CAT. #
4 CONDUCTOR SILVERSKIN	\$39.95	42755

8 Conductor Silverskin

Use our crimp tool and RJ45 connectors to build Ethernet or Telephone system patch cords in just the right length. This shielded 8 conductor Silverskin is just what you need to custom configure your network. (500 ft. spools)

ITEM	PRICE	CAT. #
8 CONDUCTOR SILVERSKIN	\$59.95	42756



Apple AAUI

Don't fool around trying to terminate that LocalTalk network. Our LocalTalk connectors have automatic termination that's always the right amount! No little plastic terminating gizmos to keep track of!

LocalTalk Connector

LocalTalk Connector

Ever had a LocalTalk connector come out unexpectedly? Ours have a patented locking connector that keeps them in place — no more accidental disconnects from the network!

Anyone that uses a Mac frequently will, at least occasionally, need a LocalTalk connector to connect to a LocalTalk network, a networkable LaserWriter, or through a router into a larger Ethernet Lan. Our LocalTalk connectors connect your Mac to the LocalTalk network through inexpensive, easy-to-find telephone (four-conductor, silverskin) cable with RJ11 connectors on either end. With the network termination built right into the connector, you don't have to worry about keeping track of any small pieces or parts. The Mac serial port plug is Hosiden's patented mini-din eight locking connector that all but eliminates the problem of the accidental disconnects from the network. If you need a LocalTalk connector that's 100% reliable, don't pay more for less...

ITEM	PRICE	CAT. #
LOCALTALK CONNECTOR	\$9.95	41790



Mac Networking Software

ITEM	PRICE	CAT. #
APPLE REMOTE ACCESS 2.0	\$149.95	41300
APPLESHARE 3.0	899.95	41304

RJ11 Connector Plugs-50 Pack

These RJ11 type phone plugs work with most 4 conductor silverskin and modular phone jacks to give you the ability to produce phone and LocalTalk (PhoneNet-style) cables in just the length you need.

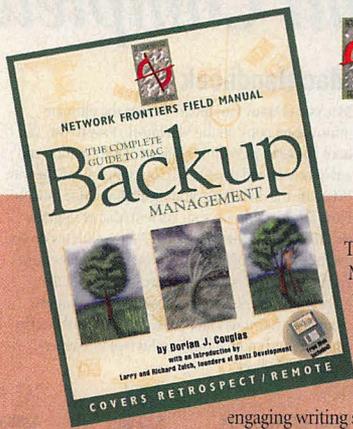
ITEM	PRICE	CAT. #
RJ11 CONNECTOR PLUGS (50 PK.)	\$9.95	42754

RJ45 Connector Plugs-50 Pack

These RJ45 crimp connections work with our (and most other) eight conductor silverskin cabling. Ideal for telephone or data patch cords. These connectors let you quickly fabricate patch cords in just the right length.

ITEM	PRICE	CAT. #
RJ45 CONNECTOR PLUGS (50 PK.)	\$9.95	42753

FINALLY...someone has put it all together!



The Complete Guide to Mac Backup Management

A Must for any Technology Enthusiast

by Dorian Cougias

This definitive book on Macintosh backup is written by Mac networking expert Dorian Cougias of Network Frontiers. Cougias uses his

Introduction by Larry and Richard Zulch, founders of Dantz Development

engaging writing style to help you identify the difficult questions of Macintosh backup and work through them. What should be backed up? How often, and how? Learn to make those practical (and political) decisions for yourself, for a network and for a company. Cougias presents thorough explanations of networks and the challenges of backing up data across them as well as a complete discussion of Dantz Development's Retrospect and DiskFit Pro software and Claris' Safety Suite. The Complete Guide to Mac Backup Management is the definitive syllabus on effective, complete backup management. If you back up your work, you should read this book. If you're a network administrator, you must have this book in your reference library - period. If you work with network administrators, you need this book to help you understand these people and what they do all day and, more importantly, what they should be doing.



Includes FREE Software!

The Complete Guide to Mac Backup Management includes easy-to-use backup form templates and a free copy of Server Sleuth from Santorini - a \$99 value.

The Complete Guide to Backup Management covers:

- Priceless, detailed instruction on getting the most out of Dantz' Retrospect - material not available anywhere else!
- How to decide what to backup - and when
- Reduce network overhead and optimize backup performance
- Select an uninterruptible power supply by type, capacity or demand
- Understand how to choose and use backup hardware and media
- Online versus nearline storage - which do you need?
- Backup or archive - why the difference could cost you your job.
- How to restore, when to restore and why.

ITEM	PRICE	CAT. #
GUIDE TO MAC BACKUP MANAGEMENT	\$59.95	43880
APS PRICE	\$49.95	

Books & Software

The Complete Guide to Mac Backup Management

by Steven Bobker

I've always been amazed that backup hasn't had a book of its own. Indeed, most general computer books only cover it in a cursory fashion, if at all. Dorian J. Cougias' **The Complete Guide to Mac Backup Management** (Floating Point Press, \$59 including a software disk) remedies that situation.

This 440-page book starts with the basics, has a simply wonderful theory section, and covers network-specific problems as well as local backup issues. A large section is devoted to

(Continued on page 46)

Learn from the Network Frontiers' Experts In Person...

"Managing AppleShare and Backup Management" brought to you by Network Frontiers, the experts in the field of networking and backups.

Upcoming Sessions:

Full Course:

"Managing AppleShare" and "Backup Management"

Half Course: Either course by itself

- ATLANTA March 14-17
- CHICAGO June 20-23
- CINCINNATI January 24-27
- DALLAS February 14-17
- DETROIT April 25-28
- MINNEAPOLIS March 14-17
- SAN FRANCISCO January 16-19

Other courses and helpful books available:

- QuickMail Administrations
- E-Mail Privacy & Policy
- Enterprise Cabling
- Configuration Management

Retrospect...Get It From APS, the Backup Experts!

Retrospect 2.1

The newest version of the standard in Macintosh backup software is Retrospect 2.1 by Dantz. Retrospect 2.1 continues version 2.0's easy-to-use interface, adding accelerated performance. Supports PowerPC Macs. Select all files, or any file (or files) by color, date, type, creator - almost any selection criteria. Set up unattended backups to run at any time or day of the month, once or always. Backup or archive, Retrospect is the choice you should make when you back up. French, German and Japanese versions of Retrospect 2.0 are available for foreign orders.

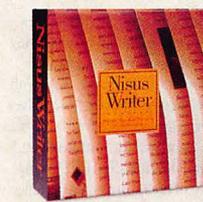
ITEM	PRICE	CAT. #
RETROSPECT 2.1	\$139.95	41340

Retrospect Remote

10-Pack/50-Packs

Don't depend on the users in your network to protect their own valuable information. Remote 10- or 50-packs let you give full Retrospect network backup flexibility to as many machines as are on your network. Need to backup more machines/volumes? Just add another 10-pack or 50-pack. (Remote 10-packs and 50-packs require that you have Retrospect.)

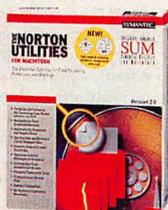
ITEM	PRICE	CAT. #
RETROSPECT REMOTE 10-PACK	\$139.95	41344
RETROSPECT REMOTE 50-PACK	\$99.95	41346



Nisus Writer

Everyone here at APS has been a big fan of Nisus for a long time. Now there's Nisus Writer - document processing at the next level! The next generation of Nisus is still as intuitive as ever, but now it has knockout power that no other word processor can match. Incorporate sound, QuickTime movies, tables and graphics into your documents and generate speech from text in five languages. Nisus Writer takes full advantage of World Script to work seamlessly with European, Oriental, and right-to-left languages, including foreign menu text and dictionaries. And there's no limit to Undos, Redos, or document length. Frankly, with Nisus Writer, there are hardly any limits at all.

ITEM	PRICE	CAT. #
NISUS WRITER	\$299.95	41353



Norton Utilities

Norton Utilities is the best-known name in disk management for DOS and Mac machines, incorporating sophisticated data recovery capability with backup utilities and security features you need for the protection of your data. Norton is the name and Symantec is the publisher. APS is the source.

ITEM	PRICE	CAT. #
NORTON FOR MAC	\$99.95	41330

VirtualDisk



VirtualDisk is THE "must-have utility" for nearline (that's removable media) data storage. VirtualDisk automatically catalogs files within the VirtualDisk icon on your Mac's desktop. Files appear on the VirtualDisk volume as if they were on a mounted hard drive. Double click on the desired file and VirtualDisk prompts you to insert the correct cartridge or diskette to retrieve the file - that's all there is to it! Instead of mounting one diskette or cartridge after another trying to locate a particular file, let VirtualDisk do it for you.

ITEM	PRICE	CAT. #
VIRTUALDISK	\$44.95	41322

COPYright Pro

Part of what makes a Mac a Mac is the Finder. It's a wonderful metaphor from which to operate a computer. Unfortunately, one of the frustrating aspects of the Finder involves copying files. First, it's painfully slow. Second, copying a large number of files virtually locks you out of the ability to do anything else, belying the incredible potential of System 7. COPYright Pro gives the Finder back to you. Copy files and you'll be able to launch and work in applications in the background with COPYright Pro. Manage several file-copies at the same time - foreground or background. Schedule copies later - or at a regular interval. You already know how to use it, drag and drop, just like you always have - except now you don't have to wait.

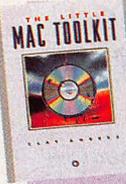
ITEM	PRICE	CAT. #
COPYRITE PRO	\$19.95	41321



Call Network Frontiers at 800 net-trm1 (800-638-8761) for more information.

Network Frontiers Managing the Basics: In-depth instruction for Network Professionals

43
800-354-1213
24 hour FAX 1-816-483-3077
Prices and specifications subject to change without notice

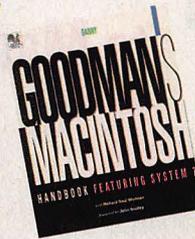
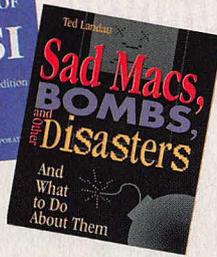
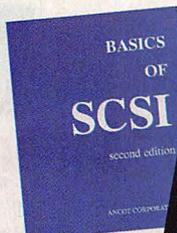
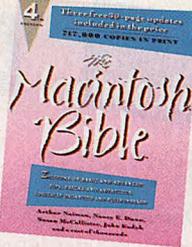
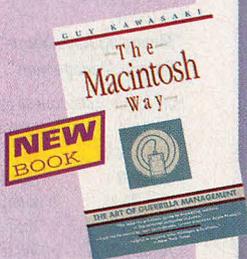


Bookshelf: The Little Mac Toolkit
by Steven Bokber

Real power users always have this large and neat set of small programs that add many features to their computers. Many of these programs are shareware and freeware packages that they've collected over time. If you're new to the Mac or just seeking to get more from your Mac and become more expert in its use, you need some of these programs.

You can collect them one at a time from bulletin boards, on-line services, and user groups. There are alot already packed onto every drive you buy from APS. All you need do is sort what you want, print out the documentation, learn the programs, and pay the shareware fees.

(Continued on page 45)



Macintosh Bible, 4th Ed.

The *Macintosh Bible* is the ultimate resource guide for Macintosh users at any level of sophistication. Tips, hints tricks that'll help you get the most from your Mac. Learn the basics as well as the secrets only the pros know about hardware, software, printing, fonts and utilities. Understand word processing, databases, spreadsheets, graphics – and more! It's all there inside the *Macintosh Bible*. If you're just starting out with your Mac or you're a seasoned pro, there's lots of valuable information you'll use in the *Macintosh Bible*.

ITEM	PRICE	CAT. #
MACINTOSH BIBLE	\$32.00	43869
APS PRICE	\$24.95	

Basics of SCSI

If you use a Mac, you live in a SCSI world. *The Basics of SCSI* gives you all the background you'll ever need on SCSI, the SCSI bus, and their evolution. A fairly technical manual on the subject, *The Basics of SCSI* provides definitions, explanations, specifications, commands and protocols for SCSI. Additionally, this 53-page handbook has one of the best glossaries of terms related to SCSI I've seen anywhere. A must-have reference for a network administrator, the professional consultant, product engineer or power user, *The Basics of SCSI* answers all those nagging questions about what SCSI is or should be, and how it got that way.

ITEM	PRICE	CAT. #
BASICS OF SCSI	\$9.50	43876
APS PRICE	\$7.95	

The Macintosh Way

From the original Mac guru and evangelist comes a personal vision of "doing the right thing and doing things right" that's entitled *The Macintosh Way*. Not only does *The Macintosh Way* celebrate the Macintosh and the process by which it became the best personal computer in history, it extols the virtues of the things that go into great products, great marketing and great customer service – the hallmarks of great companies. Witty, irreverent, bold and idiosyncratic, Kawasaki's national bestseller is a "must read" if you'd like to know more about how the Mac became the great machine it is and get a glimmer of why other products can or can't succeed as well.

ITEM	PRICE	CAT. #
THE MACINTOSH WAY	\$11.00	43872
APS PRICE	\$8.95	

Selling the Dream

From the original Mac-Guy (sorry) comes *Selling the Dream*, the definitive handbook on the leadership, marketing and strategic planning that are required for successful business in the nineties. In *Selling the Dream*, Kawasaki charts a complete blueprint for the beginning evangelist – defining a cause, identifying good and bad enemies, delivering effective presentations and how to find, train and recruit new evangelists. Learn in Kawasaki's witty, irreverent style to become the consummate evangelist – one who's words will never again fall on deaf ears.

ITEM	PRICE	CAT. #
SELLING THE DREAM	\$10.00	43873
APS PRICE	\$7.95	

Sad Macs, Bombs and Other Disasters

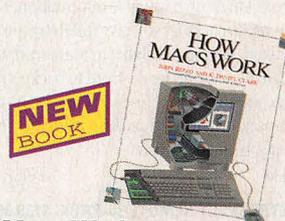
From fractious fonts to the ominous sad Mac icon, Macintosh expert Ted Landau comes to the rescue. Symptom by symptom, he walks you through exactly what can go wrong with your Mac. If you use one Mac occasionally or maintain a whole network of Macs constantly, *Sad Macs, Bombs and Other Disasters* can help minimize disasters.

ITEM	PRICE	CAT. #
SAD MACS, BOMBS & OTHER DISASTERS	\$24.95	43845
APS PRICE	\$19.95	

"What Do I Do Now?" 3rd Ed.

One of the best selling series of books in Mac history, this new edition has over 75% new material addressing fast, simple solutions to most of the common problems that users will encounter with the Mac. For the novice, there are foundation chapters on hardware and software basics. For the power user, learn different approaches to complex problems that sometimes stump even the expert. If you only get one book for your mac library, "What do I do now?" should be the one.

ITEM	PRICE	CAT. #
WHAT DO I DO NOW?	\$22.00	43870
APS PRICE	\$17.95	



How Macs Work

Witness the technological glory of the Mac at a level of detail you've probably never considered. How does the Mac kick itself into action when it starts? How does RAM work in a Mac and why does a cache help? How do floppy disks and hard drives store information and then find it again and get it back to the computer when it's needed – and more and more! Gain incredible insight, and learn what makes Macs tick with *How Macs Work*.

ITEM	PRICE	CAT. #
HOW MACS WORK	\$24.95	43890
APS PRICE	\$19.95	

The Tao of AppleScript

Until now, I had to use clumsy third party utilities to automate tasks on my Mac. With just a little help from Derrick Schneider's new book, *The Tao of AppleScript*, I learned to make the most of Apple's elegant new scripting language. With *The Tao of AppleScript* and the diskette of software included with it, you too can learn to control your Mac like never before. Make your Macintosh work for you, not the other way around.

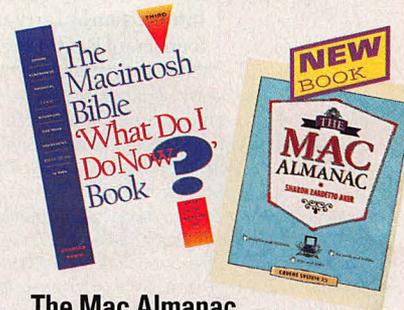
ITEM	PRICE	CAT. #
TAO OF APPLESCRIPT	\$24.95	43864
APS PRICE	\$19.95	

APS Is Your Complete

Mac Handbook

Mac guru Danny Goodman delivers the ultimate information book on the Macintosh. Easy to use, this book packs an incredible amount of information and answers nearly all of your Mac questions along the way. What are the differences among all those Mac models? How do you optimize your current Mac or upgrade that trusty older Mac? Is System 7 for you? How do you get the most out of it? How do you transfer files from DOS to Mac and back? These are just a few of the questions Danny Goodman answers in this super-complete *Macintosh Handbook*, and he does it clearly, concisely and entertainingly in his typically super-organized fashion.

ITEM	PRICE	CAT. #
MAC HANDBOOK	\$29.95	43866
APS PRICE	\$19.95	



The Mac Almanac

After she (co-) wrote the *Macintosh Bible*, here's what legendary Mac author and Mac connoisseur Sharon Zardetto Aker did for an encore – a veritable brain dump of Mac System-savvy. Written for every Mac enthusiast or wannabe, *The Mac Almanac* covers all system details, both hardware and software, highlighting the issues every user needs to know. In this Mac compendium, you can learn memory management from a pro, fonts and printing, storage, nasty icon tricks, shameless Mac trivia, System features like extensions, control panels and desk accessories – and much more. The one book you must have in your Mac library!

ITEM	PRICE	CAT. #
THE MAC ALMANAC	\$29.95	43889
APS PRICE	\$23.95	

MacWorld Mac and PowerMac SECRETS, 2nd Ed.

This is it! The updated edition of the book that delves into the deep, dark recesses of the Mac and reveals the latest scoop on hardware, software, multimedia and networks – plus much more, including three disks with over 8MB of free software. Get the latest on PowerMacs and PowerBooks, turn any Mac into a Performa, or vice versa, learn to choose the right Mac for your needs and more! *MacWorld Mac and PowerMac SECRETS* bring you the best info from two of the most knowledgeable and readable authors on the Mac scene, David Pogue and Joseph Schorr.

ITEM	PRICE	CAT. #
MACWORLD MAC AND POWERMAC SECRETS	\$29.95	43886
APS PRICE	\$24.95	



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Surf the Internet!

MacWorld Networking Bible, 2nd Ed.

by Dav Koszur & Joel Snyder

One of the best hands-on resources for Mac network managers, the *Macworld Networking Bible* covers OSI Reference model, AppleTalk, LocalTalk LANS, EtherTalk LANS and much more, this is THE book for anyone administering a network, from the smallest to the largest. Learn about TCP/IP, including PowerBooks into networks, mixed Mac and PC network environments, PowerTalks and PowerShare. It's all here in the *Macworld Networking Bible*.

ITEM	PRICE	CAT. #
MACWORLD NETWORKING BIBLE, 2ND ED.	\$29.95	43887
APS PRICE	\$19.95	

The Mac Internet Tour Guide

Learn the ins and the outs of cruising the Internet the easy way with Mac guru Michael Fraase. Learn about the vast information resources available on the great data highway. Neat E-Mail software is included that'll convert the Internet's boring UNIX features to a face any Mac user will love.

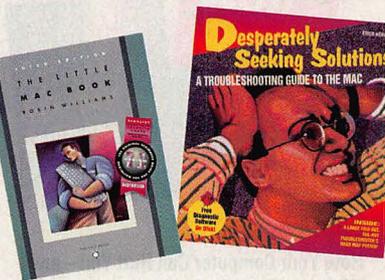
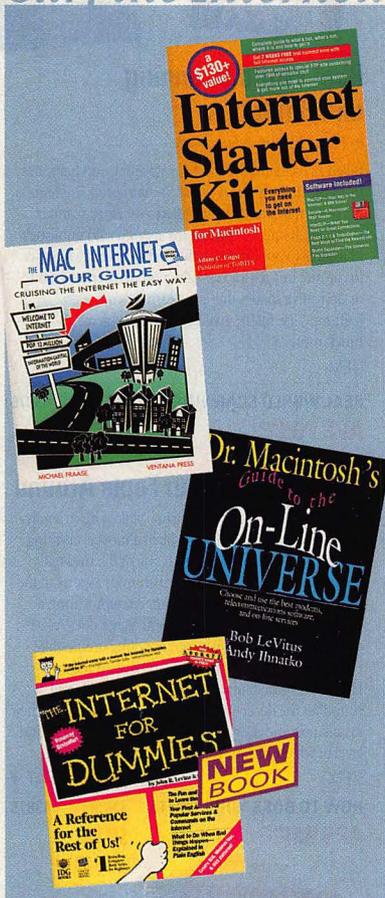
ITEM	PRICE	CAT. #
MAC INTERNET TOUR GUIDE	\$27.95	43861
APS PRICE	\$19.95	

Internet for Dummies, Mac Ver.

by Charles Seiter

If ever there was a timely book, this is it. Novice and intermediate Mac users can now learn to surf the Internet like the pros - from a book written in the style everyone loves! No more UNIX commands, no more PC-ese. This book has everything the Mac user needs to hook up and start surfing.

ITEM	PRICE	CAT. #
INTERNET FOR DUMMIES	\$19.95	43888
APS PRICE	\$14.95	



The Little Mac Book

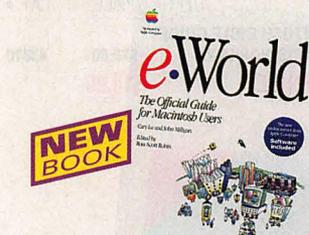
The Little Mac Book by Robin Williams has won nothing but kudos and awards for its easy, concise explanation of the nuts and bolts of working in the Mac environment. Answering the big and the little questions that every beginning Mac user has, *The Little Mac Book* bridges the Mac's gap between "intuitive" and "self evident."

ITEM	PRICE	CAT. #
LITTLE MAC BOOK	\$12.00	43840
APS PRICE	\$9.95	

The PowerBook Companion

Now in its second edition, Rich Wolfson and Sharon Aker's *PowerBook Companion* bring you even more practical solutions for the most common and difficult issues facing PowerBook users. Included with every book is a diskette of important and useful software to enhance your PowerBook.

ITEM	PRICE	CAT. #
POWERBOOK COMPANION	\$24.95	43825
APS PRICE	\$17.95	

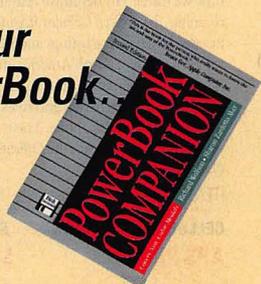


eWorld Starter Kit

Finally, there's an online service that brings you all the promise of the Mac itself - Apple's eWorld. Join the global world of Mac users and connect with a direct link to Apple Computer, find what you want, get what you need, access it easily, painlessly, enjoyably on eWorld, the new online universe from the folks who built the computer for "the rest of us."

ITEM	PRICE	CAT. #
e•WORLD STARTER KIT	\$29.95	43892
APS PRICE	\$29.95	

For Your PowerBook



Internet Starter Kit

Take your Mac on a world tour. This book is your ticket, and Adam Engst, world-renowned editor of TidBits, is your guide.

Mac terminal programs, universal e-mail, news services, real-time conversations with people all across the globe, special interest networks, and libraries of programs and information - all this and more is waiting for you. This book includes all the guidelines and software you need to get going on the Internet - without going bankrupt. Plus a special connect site offer that cuts costs.

ITEM	PRICE	CAT. #
INTERNET STARTER KIT	\$29.95	43862
APS PRICE	\$19.95	

Dr. Macintosh's Guide To the On-Line Universe

So, you've heard there's a whole universe out there that you're missing. If so, you need *Dr. Macintosh's Guide to the On-Line Universe* by Dr. Macintosh, himself, Bob LeVitus, and MacUser contributing editor Andy Ihnatko. Tap into the major on-line services like CompuServe, America Online or Genie as well as electronic bulletin boards (BBs) across the country and around the world.

ITEM	PRICE	CAT. #
DR. MACINTOSH'S GUIDE TO THE ON-LINE UNIVERSE	\$24.95	43830
APS PRICE	\$17.95	

Desperately Seeking Solutions

Your Mac just crashed. It's four o'clock and your report is due at five. What do you do? - Reach for this book! Unfold the "Don't Panic" trouble-shooting map. Instantly isolate and diagnose your own problem and learn quickly how to solve it.

ITEM	PRICE	CAT. #
DESP. SEEKING SOLUTIONS	\$29.95	43850
APS PRICE	\$23.95	

The Dead Mac Scrolls

Billed as a guide to help you "fix hundreds of hardware problems without going broke", author Larry Pina packs hundreds of pages of valuable information, instructions, hints and tips in *The Dead Mac Scrolls*. Covering Macs from the Plus through the original Mac II, floppy disk drives, hard disk drives, external monitors, Imagewriters and LaserWriters through the NTX, *The Dead Mac Scrolls* tells you how to prevent problems, and how to fix them without spending an arm and a leg. Diagrams, descriptions, approximate costs - they're all available to help you with your vintage Macintosh system.

ITEM	PRICE	CAT. #
THE DEAD MAC SCROLLS	\$32.00	43877
APS PRICE	\$24.95	

The Little Mac Toolkit

(Continued from page 44)

You'll do even better by getting *The Little Mac Toolkit*. Clay has selected over 120 of the best freeware and shareware products. He's tested them for compatibility with current Macs. All the favorites are here, in well organized chapters. Each program gets its own section which consists of an excellent summary of the documentation and use tips. These sections are always good enough so you don't have to print out the on-disk documentation.

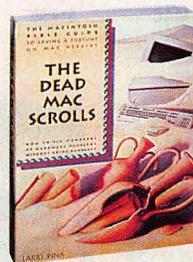
The book isn't perfect. Too many of the programs are way too far out of date. There are newer versions of at least two thirds of the programs here. While what's here works, the newer versions work better and sometimes offer more. You're on your own on updating.

I'd have liked a fairly complete troubleshooting section. When you start adding the number of extensions and control panels here, the possibility of conflicts is large. And there must be a better way to attach the CD ROM to the book. As is, pasted in a paper envelope to the front cover, you can easily destroy the front cover removing it.

Overall, the positive side of this book heavily outweighs the negative. I highly recommend it.

Item Price Cat. #

LITTLE MAC TOOL KIT	\$34.95	43871
APS PRICE	\$24.95	



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The Complete Guide to Mac Backup Management

(Continued from page 43)

back up software the author considers best (I completely agree). Another chapter is devoted to DiskFit Pro, the other real choice in backup software.

The first third of the book is devoted to basics: planning strategies and exploring why you might ever need a backup. A good deal of space is spent exploring ways to avoid ever having to use your backups.

The middle of the book explores the actual backups, while the end explains exactly how to use your backup most efficiently to get back where you were before whatever went wrong went wrong.

The style is light and very, very readable. Don't be put off by the tone though. The information is complete and, as far as my knowledge, extends completely accurate.

The software included consists of Server Sleuth and a group of useful templates. This software is intended for those with network backup responsibilities and is quite good. Everyone can make good use of the scheduling and logging templates.

This book absolutely belongs in the library of all system administrators who have any concern about the security of data on their networks, and will be a good addition to every user's library.

Photoshop Wow! Book

If you use Photoshop, you must have this book, even though you may not need the basic information about Photoshop's tools, functions and preferences, or the great tips for helping you work quicker and easier. You might not care about the step-by-step techniques for developing great, paint-like, photo realistic and graphic special effects or the gallery pieces by renowned Photoshop artists. You may not be concerned that this book is one of the best resource guides to tools, utilities and images, or that it has a diskette loaded with filters from the acclaimed Kai's Power Tools collection as well as WOW Widget displacement maps, WOW Channel Operations tutorial and much more.

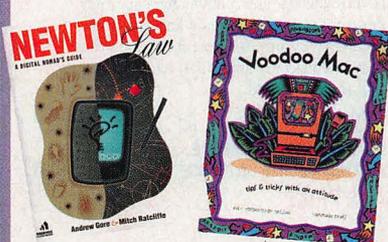
If you use Photoshop, you must have this book to help you get the most out of Photoshop.

ITEM	PRICE	CAT. #
PHOTOSHOP WOW! BOOK	\$35.00	41398
APS PRICE	\$24.95	

Newton's Law

Newton's Law has it all. How the Newton developed; what it does; what it can, could and might be able to do; how to get the most out of it; what you should put into it...and more and more and more. Newton's Law is the definitive volume that's a must-read if you have a Newton, want a Newton or...know someone named Newton.

ITEM	PRICE	CAT. #
NEWTON'S LAW	\$21.95	43860
APS PRICE	\$17.95	



Voodoo Mac

Billed as "Mac Tips and Tricks with an Attitude," Voodoo Mac is more of an ultra-helpful collection of neat, valuable, time and agony saving snippets of advice and information that'll make any Mac user's life-with-Mac better. Filled with helpful suggestions about how to improve your life with the Finder, customize your desktop, better use your hard disk drive, Voodoo Mac is a treasure chest of Mac information wrapped in one of the most delicious presentation styles yet.

ITEM	PRICE	CAT. #
VOODOO MAC	\$17.95	43863
APS PRICE	\$15.95	



Icons for the Masses

Icons are neat, icons are cool. Creating or modifying them to obtain the desired effect isn't as easy as it looks. Icon wizard David Lai takes you behind the scene of icon design. Learn how to create and adapt icons using a variety of icon editors including ResEdit, Microseed's Icon 7 and Baseline's I Like Icon. Learn about Apple's guidelines, color palettes, blends, effects and much more! The book also includes a disk with more than 1000 custom icons.

ITEM	PRICE	CAT. #
ICONS FOR THE MASSES	\$17.95	43867
APS PRICE	\$14.95	

Real World Scanning and Halftones

by David Blatner & Steve Roth

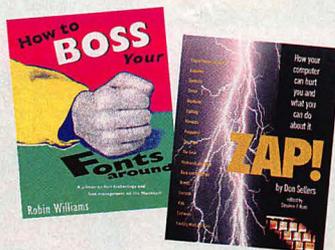
Billed as the definitive guide to scanning and halftones from the desktop, Real World Scanning and Halftones is the book that should be bundled with every scanner ever sold! Required reading for anyone who publishes or aspires to publish from the desktop using a scanner to capture images for reproduction in black and white or derivative shades thereof. Learn to work with halftones, use filters, avoid printing problems and much more.

ITEM	PRICE	CAT. #
REAL WORLD SCANNING	\$24.95	43879
APS PRICE	\$19.95	

How To Boss Your Fonts Around

Robin Williams has done it again...taken her friendly, easy to read writing style to explain almost everything you ever wanted to know about one of the most fascinating (and occasionally frustrating) aspects of the Mac - fonts. What's a screen font, an outline font, a downloadable font, a resident font? What does ATM do? How you can best use font handling utilities like Suitcase and MasterJuggler, and more and more. Highly illustrated, this 152 page helper distills and simplifies the deceptively complex subject of fonts, their installation and usage down to the easy-to-understand level of which author, Robin Williams, is a master.

ITEM	PRICE	CAT. #
HOW TO BOSS YOUR FONTS	\$12.95	43875
APS PRICE	\$9.95	



Zap!

How Your Computer Can Hurt You - and What You Can Do About It

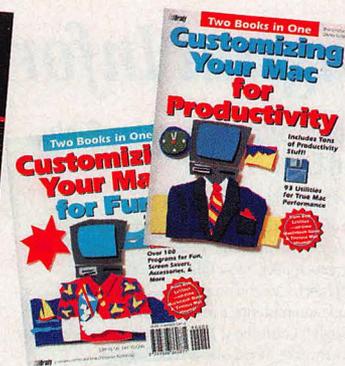
Computers are great, they're fascinating, they're incredible productivity tools, they're tremendous labor savers, and they're the most common cause of lost productivity in the workplace! Understand the double-edged sword of computer use, the risks and hazards and what you can do to safely and effectively use a computer without risk of being abused by it.

ITEM	PRICE	CAT. #
ZAP!	\$12.95	43874
APS PRICE	\$9.50	

Cool Mac Sounds, 2nd Ed.

Mac sound expert Craig O'Donnell does it again! Bringing you the coolest, most ear-tickling Mac sounds ever collected, this pumped-up Second Edition of Cool Mac Sounds shows you just how versatile your Mac can be. Pop in the Too Cool Disk (included), and morph your Mac into a state-of-the-art sound station. Record, edit and play back all kinds of sounds; apply standard sampling theory; manage your sound system with the Mac Sound Manager; and jazz up your Mac with HyperCard, ResEdit, Sound Mover and Sound Wave.

ITEM	PRICE	CAT. #
COOL MAC SOUNDS	\$24.95	43865
APS PRICE	\$17.95	

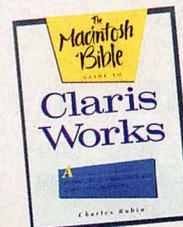


Customizing Your Mac for Fun and Productivity

Dr. Macintosh (Bob Levitus) and Glenn Brown team up to bring you two books to help you get the most out of your Macintosh. Customizing Your Mac for Fun and Customizing Your Mac for Productivity is really two books in one. And, it will help you do both equally well! Complete with two diskettes providing over 100 Mac programs for fun and 93 utilities for Mac performance, this innovative new book is just what the doctor ordered!

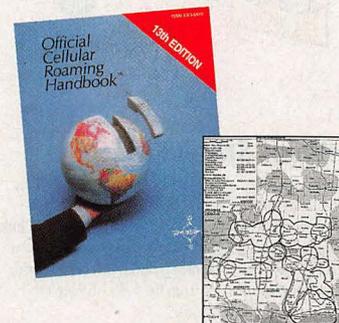
ITEM	PRICE	CAT. #
CUSTOMIZING YOUR MAC	\$39.95	43855
APS PRICE	\$29.95	

The Macintosh Bible Guide to ClarisWorks 2.1



Make the most of ClarisWorks 2.1! This guide gives you the head start you need to get the most out of the best digital business tool out there. With information for beginning, intermediate and advanced users alike, The Macintosh Bible Guide to ClarisWorks 2.1 takes the "manual labor" out of learning ClarisWorks.

ITEM	PRICE	CAT. #
MACINTOSH BIBLE GUIDE TO CLARISWORKS 2.1	\$22.00	43810
APS PRICE	\$14.95	



Official Cellular Roaming Handbook™

I added this book to our line because we use it every time we travel. The definitive resource on cellular roaming, the Official Cellular Roamer's Guide provides hundreds of pages of listings and maps of service areas for virtually all of North America and the Caribbean, A&B system roamer numbers, customer assistance numbers, roamer charges and rules vital to anyone who travels with a cellular phone. Travel effortlessly with your cellular phone with the Official Cellular Roamer's Guide.

ITEM	PRICE	CAT. #
CELLULAR HANDBOOK	\$15.95	43878
APS PRICE	\$12.95	

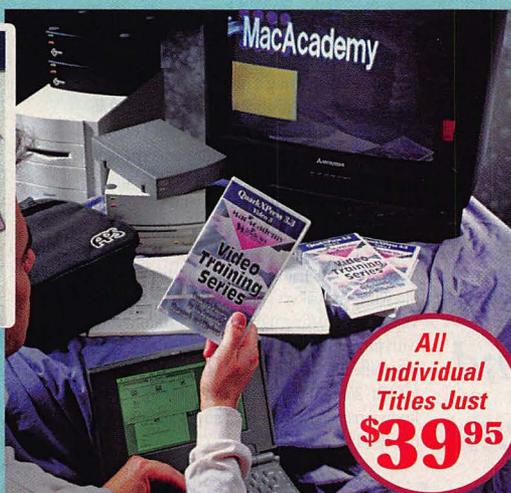
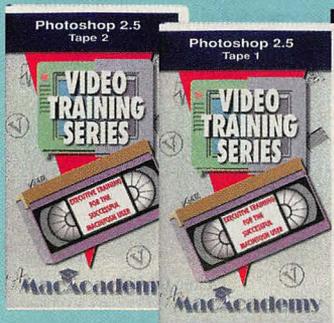


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Sometimes, it's just plain easier to watch someone do something and then try it yourself. That's why we decided to carry the MacAcademy line of video instruction tapes. Often easier to follow than even a well written manual, the MacAcademy line of video instruction tapes will help you get the most out of that expensive software purchase.

Consider MacAcademy your very own personal video tutor – always there to go over a specific skill, trick or shortcut – over and over again, whenever you want. If you're going to learn a brand new application, the MacAcademy tapes are an absolutely perfect introduction. And for more difficult or complex applications like Photoshop and Quark, MacAcademy offers a complete lineup

of tapes geared to beginner, intermediate and advanced users

We've watched many of these tapes and honestly feel that no matter the user and no matter the application, there is something for everyone in each and every tape that more than justifies their cost. APS stocks dozens of titles covering the gamut of popular Macintosh software applications. Just call us for more information.

Only \$36⁹⁵ per tape when you buy an application series.

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FILEMAKER PRO 1	39.95	49501
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You don't have to feel like a dummy anymore! These books make it easy for you to learn.

Macintosh System 7.5 for Dummies

A whole new System's a comin' and who better to learn it from than Dr. Macintosh himself, Bob Levitus. The Mac author's author, Bob Levitus covers everything you need to know to get the most out of Apple's new System software. *Macintosh System 7.5 for Dummies* has tips, tricks, insights, top-10 lists, shortcuts and hands-on techniques that'll save you time, money and frustration. If you're planning on making the move, don't be a dummy, take a moment to learn from the best.

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MACINTOSH SYSTEM 7.5 FOR DUMMIES	\$19.95	43885
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Word 6 for Dummies, Mac

Bestselling author Dan Gookin uses his irreverent sense of humor and expert knowledge of Microsoft Word to produce the definitive text on the most popular Macintosh word processor. Learn to use the keyboard correctly to make the most of the new Word interface. Navigate documents and learn to manage files, format characters, sentences and paragraphs. Learn to take advantage of all the arcane power hidden inside Microsoft's Word, enjoyably and interestingly – without the drudgery of those imposing Word manuals.

ITEM	PRICE	CAT. #
WORD 6 FOR DUMMIES	\$19.95	43884
APS PRICE	\$14.95	

Quicken 5 for Dummies, Mac

With the easy humor only Stephen Nelson can bring to the subject, *Quicken 5 for Dummies* helps you get the most from the most popular personal finance software on the Mac. Monitor checking, savings, tax and investment accounts, move data painlessly from Quicken to Excel and MacIntax, run your small business, it's all possible, you just need to know how and *Quicken 5 for Dummies* can show you. Don't wait! If you use Quicken, you need *Quicken 5 for Dummies*. If you don't...you're missing out!

ITEM	PRICE	CAT. #
QUICKEN 5 FOR DUMMIES	\$19.95	43883
APS PRICE	\$14.95	

Excel 5 for Dummies, Mac

Finally, there's a fun-to-read Excel book for the legions of Mac Excel users to learn from. Author, Greg Harvey packs this spectacular reference work with helpful tips, time saving shortcuts, PowerUser tricks and more – all the stuff you need to know to take advantage of the incredible power built into the latest version of Microsoft Excel.

ITEM	PRICE	CAT. #
EXCEL 5 FOR DUMMIES	\$19.95	43882
APS PRICE	\$14.95	

Macs for Dummies, 2nd Ed.

From bestselling author David Pogue comes the newest edition of the book that helped dummies (and non-dummies) everywhere. Learn quickly (while hardly knowing your learning) everything you need to know to coexist peacefully with that Mac that everyone said was so simple, but sure doesn't seem so. Learn the tips the tricks and shortcuts, learn the inside skinny on the operating system and the hardware. Author David Pogue – Mac consultant to the stars writes in a humorous, witty, informative style that'll keep your reading light on all night and help you get the most out of your computer the next morning.

ITEM	PRICE	CAT. #
MACS FOR DUMMIES	\$19.95	43881
APS PRICE	\$14.95	

System 7.5 for Dummies

by Steven Bobker

With all the new stuff Apple has tossed into System 7.5, you'd think they'd provide a decent manual. They don't. Maybe their reasoning was to force you to use the interesting, but painfully slow Apple Guide feature, which currently works only while you're in the Finder. Apple Guide is nice, but so awkward that it's going to be just slightly more popular than balloon help – in other words, more ignored than used.

And even Apple Guide doesn't have as much information in it as Bob Levitus' *System 7.5 for Dummies* book (IDG Books, \$19.99). The title is a bit unfortunate since this book is the real manual for individual users of System 7.5. If you buy 7.5 and don't get this book, you're only buying a partial package.

Bob, writing in his best Dr. Macintosh style, really explains how to use all the features the mini-manual just says are there. He also tells you how to do all the neat stuff the mini-manual hints at but then makes you struggle through Apple Guide to see how to do. Oh yeah, he also explains Apple Guide much better than the mini-manual or Apple Guide itself.

The book covers all the new features of Sys 7.5 including PowerTalk, QuickDraw GX Stickies, the new Find File, and the essential Control Strip.

There's no software disk, no loss because System 7.5 itself adds so much to your drives. The only marginally weak spot is AppleScript, a subject that really deserves a book of its own; I suggest BMUG's *The Tao of AppleScript*, 2nd edition. This is the real System 7.5 manual.

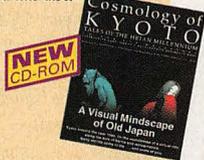
Cosmology of Kyoto

by Steven Bobker

In less than a year, CD ROM content has gone from mostly hard copy material presented in crude links to truly interactive content that is unlike any other media. The *Cosmology of Kyoto* ups the ante again. This Japanese-made disc is so lush and well-designed that you'll spend days rather than hours or minutes with it. It is a game without apparent goals or discernible end. You explore, make choices and explore again. The places, people and creatures you come across will range from the eerie, scary and unworldly, to the most mundane. Some are dignified and civil, some are extremely gross. There's a paper map to sort of help find your way around, but it's not really needed. Anything can appear anywhere.

The graphics are the nicest yet on CD. Voice is used very nicely and effectively, and the content has rarely failed to enthral me.

The beauty of this CD comes at a price, though—slow performance. It's only marginally acceptable on a 33MHz '030 Mac using a double-speed CD ROM drive and a good caching driver. In spite of the speed issues, I highly recommend this disc.



Cosmology of Kyoto

Navigate the *Cosmology of Kyoto* in 10th century Japan. An amazing multimedia experience on the border of mythology and history. Combining fascinating history accurate topology and mythological encounters as you navigate the streets of the ancient city. The story is different every time you go exploring. Switch to the educational reference mode to find out more from the 400 information screens on history, religion, society and literature. Pop back into the game at any point. The *Cosmology of Kyoto* is one of the most entertaining educational games so far.

ITEM	PRICE	CAT. #
COSMOLOGY OF KYOTO	\$79.95	44101

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Sony 58PC

Join the Multimedia

Sony 88PC Speakers

When I first heard them, I'd have sworn someone was playing a high-quality stereo component system! Rich, full sound with full, shake-the-walls bass just wasn't what I expected from a not-so-big pair of multimedia speakers designed to plug into your Mac or PC. So, if you're tired of fooling around with toy speakers in your multimedia environment, these incredible 10W, separately-amplified speakers from Sony are just the ticket. Throw away those old wimpy speakers (or plug them into your Walkman). Delivering rich, room-filling sound with incredible bass response, these magnetically-shielded, wide-frequency-response (70Hz-20KHz) speakers from one of the best known names in high-tech audio are just the ticket. (4" x 9-3/8" x 5")



Labtec CS-800

Labtec CS-800

To get the most out of your multimedia system, you need a good set of speakers. That's really the only way to take advantage of the superb sound that your Mac and a good CD ROM drive can deliver. I like them because they're compact, yet deliver outstanding sound quality from their 8 ohm 3.5" speakers. Conveniently powered either by batteries or the included DC adapter, they deliver frequency response that ranges from 50-15000Hz, filling both the highs and lows quite nicely, thank you!

(5-5/16" H x 4-1/4" W x 4-7/8" D)

ITEM	PRICE	CAT. #
LABTEC CS-800	\$39.95	44500
SONY 58-PC SPEAKERS	99.95	44506
SONY 88-PC SPEAKERS	149.95	44508

CHILDREN'S EDUTAINMENT



Arthur's Teacher Trouble

Story filled with lively animations, sound effects, narration and original music. Arthur Aardvark starts the third grade and discovers that his teacher is the infamous Mr. Ratburn. **Mac** \$39.95 44004



Coloring Book

This collection of over 1,000 selected coloring pictures provides hours of fun for every child. Every brush and tool has its own unique sound—from "whooshes" to "gooshes." **Mac** **Win** \$29.95 44089



Cinderella, The Original Fairy Tale

A poor young girl wins the heart of a prince with a little help from her fairy godmother. For ages 8+. **Mac** **Win** \$19.95 44006



Heather Hits Her First Home Run

The bases are loaded, Jeffrey is on third and everyone is calling for a home run as Heather steps up to bat. For ages 7+. **Mac** **Win** \$19.95 44007



Just Grandma and Me

Mercer Mayer's little Critter goes to the beach with his grandma where he fend off a nasty crab, kisses a fish, meets a talented starfish and much more. **Mac** \$39.95 44005



A Long Hard Day on the Ranch

Written in the form of a letter home, this tale shows how a young boy "imagines" spending his days at his aunt and uncle's ranch, while the illustrations show the more mundane reality. For ages 4+. **Mac** **Win** \$29.95 44008



Mud Puddle

Meet a walking mud puddle and see how it continually ambushes one little girl—until she gets the better of it. The "dirty tricks" of the Mud Puddle, and the heroine's responses are a delight time and time again. For ages 3+. **Mac** **Win** \$19.95 44010



New Kid on the Block

Broderbund's first Living Book of interactive poetry. Explore Jack Prelutsky's popular poetry book by highlighting graphics and verbs for fun detailed animations. **Mac** **Win** \$39.95 44075



The Paper Bag Princess

Once upon a time, a beautiful princess and a handsome prince lived in a castle. Suddenly the castle is destroyed by a fierce dragon. For ages 5+. **Mac** **Win** \$19.95 44011



Rodney's Wonder Window

Rodney Greenblatt, creator of this showcase of inventive art and animation, brings together 23 colorful, interactive episodes on this entertaining CD ROM. **Mac** \$29.95 44034



A Silly Noisy House

Kids ages 3 and up explore a bright and cheery home, pointing and clicking to discover animations, rhymes, sound effects and songs. **Mac** **Win** \$39.95 44035



The Tortoise and the Hare

Broderbund's fourth Living Book is a retelling of the classic Aesop's Fable. Includes dozens of hilarious new sights, gags and surprises. **Mac** \$39.95 44078

CD ROM Entertainment & Education



20,000 Leagues Under the Sea

There are thrilling experiences ahead for you as you proceed through 178 wonderfully illustrated frames telling Jules Verne's classic tale of the mysterious Captain Nemo and the diverse characters he takes on an exciting underwater adventure. **Mac** \$47.95 44079

REFERENCE/EDUCATIONAL



CD-ROM Ver. B

BMUG's entire library of Shareware and Freeware, newsletter back issues, 600MB of fonts, games and other programs. **Mac** \$49.95 44003



Clinton

Time Magazine photojournalist P.F. Bentley brings you an intimate look at Bill Clinton and his staff, from the very beginning, through the primaries and scandals and finally to victory on Election Day, 1992. **Mac** **Win** \$19.95 44082



Criterion Goes to the Movies

With over 150 video clips from the world's greatest films, this CD ROM is a film fan's dream come true! This CD ROM is chock-full of film clips, essays, credits and more. Also included are valuable coupons good for \$50 off Criterion Collection laserdiscs! **Mac** \$19.95 44030

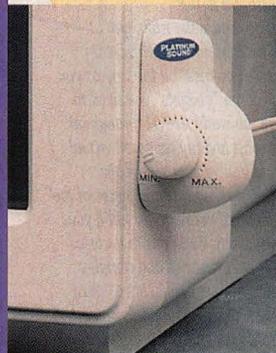


Encyclopedia of Life

An exciting reference to life on our planet! Hundreds of QuickTime video clips and 500 color images from an award-winning photo library make this the ultimate study and browsing tool for anyone interested in the world around us. **Mac** \$69.95 44065

Sound Control

What a great convenience! Turn down the sound from your multimedia speakers from wherever it's most convenient



with the Platinum Sound MultiMedia Volume Controller. On the front of your monitor, the edge of the desktop – wherever! Simply plug the output right into your Mac, the speakers into the Platinum Sound Controller and you have instant fingertip control of sound output right there where you want it – at your fingertips!

Item Price Cat. #
SOUND CONTROLLER \$19.95 42055

Audiophile ProSound MultiMedia Speakers

Instead of one of those "multimedia" computers, just add external speakers to your present system for great sound. Audiophile speakers have solid wood cabinets for rich, accurate sound and the modular design allows the speakers to sit far apart for great stereo, yet the



controls stay on your desk. The amp can accept two additional speakers plus a subwoofer, and has both mini-plug or RCA jacks. All components are fully shielded.

ITEM PRICE CAT. #
AUDIOPHILE SPEAKERS \$149.95 44509

49
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24 hour FAX 1-816-483-3077

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Have you experienced the slow access time of a cheap CD ROM drive? If so, you know why we're so excited about the quad-speed APS T3501. If not, you still won't want to pass up the incredible low price.

Too good to be true...but it is ONLY

\$299⁹⁵ WOW!

APS T 3501

Super-fast 4X drives are state-of-the-art in CD ROM technology, and there's none better than the APS T 3501. Based on Toshiba's new 3501 CD ROM mechanism and our award-winning SR 2000 enclosure, this drive delivers an average access time as low as 149 ms, and sustained transfer rates as high as 534KB per second. The APS T 3501 has all the hot features, including headphone jacks with volume control on the front of the unit. Stereo jacks on the back of the unit let you play high-quality digital audio through amplified speakers or your stereo system. The APS T 3501 can play audio CDs while you use your computer for other tasks. The APS T 3501 quad-speed unit is fully multi-session photo CD compatible (though separate Kodak software is needed). It comes with a one-year warranty and APS' legendary service and technical support. Available by itself or with our special bundle of CD ROM titles, the APS T 3501 is the drive for CD ROM speed freaks!

ITEM	DRIVE CODE	INTL	SR 2000
APS T 3501	T11	\$249.95	\$299.95

Software For Your Home Computer!

Funny: The Movie in QuickTime
Funny features video performances of nearly 100 jokes conveniently indexed by topic, length, tastefulness, color of the comic's hair and more!
Mac \$29.95 44045

Gaia Environmental Resource
The Gaia Environmental Resource disc provides a wealth of information about our planet. It contains over 500 high-resolution clip art images by Josepha Haveman covering industrial impact, foliage, landscapes, sky and the marine environment.
Mac \$59.95 44047

Grolier Multimedia Encyclopedia
The New Grolier Multimedia Encyclopedia has now been enhanced to include QuickTime animations and movies.
Mac \$249.95 44016

How Computers Work
Based on the Time-Life books How Things Work and Understanding Computers, How Computers Work is an easy-to-follow interactive guide to what's under your computer's hood. An on-line text book shows the development of the computer, a peek at future trends and activities such as knowledge tests to a programming exercise.
Mac \$49.95 44083

LIFemap: Animals
LIFemap is the most comprehensive source of information about evolutionary relationships available in the world today. Animals features spiders, insects, mollusks and sea stars.
Mac \$29.95 44038

LIFemap: Animals With Backbones
LIFemap is the most comprehensive source of information about evolutionary relationships available in the world today. Animals With Backbones features fishes, amphibians, reptiles and mammals.
Mac \$29.95 44037

LIFemap: Organic Diversity
LIFemap is the most comprehensive source of information about evolutionary relationships available in the world today. Organic Diversity features bacteria, algae, fungi and land plants.
Mac \$29.95 44039

Lyric Language Spanish
Learn Spanish the fun way! A new bilingual multi-media program for kids.
Mac \$39.95 44094

Murmurs of Earth
When Voyagers 1 and 2 were launched into space, a group of top scientists and artist were asked by NASA to include a message from Earth – a phonograph record made of copper and coated with gold, designed to last a billion years. Inscribed on this disc was the very heart of human culture: our music and images and sounds from our planet. Now that record is available on CD ROM.
Mac \$39.95 44085

The New Family Bible
This CD ROM features a narrated overview of Biblical events, the New Revised Standard Version translation from Genesis to Malachi, maps of biblical lands, family trees of characters and pronunciation of names and places in English and Hebrew.
Mac Win \$34.95 44086

ResEdit Collection
From the authors of "Zen and the Art of Resource Editing", this collection of icons, patterns, resources, utilities, QuickTime and Frontier RunTime includes the latest version of ResEdit.
Mac \$19.95 44001

Seven Days in August
Seven Days in August capture the events and emotions of that shattering week in August 1961 when the Berlin Wall was built.
Mac \$39.95 44087

Small Blue Planet
The Small Blue Planet: The Electronic Satellite Atlas integrates a collection of maps with striking images of how satellites see our small blue planet.
Mac \$59.95 44064

SuperStar Science
A comprehensive physical science lesson on disk. The fundamental concepts covered in this program include: Solids, Liquids and Gases, Magnets, Electricity, Force, Machines and Power and Earth, Moon and Space.
Mac \$39.95 44088

The View from Earth
Based on the Voyage Through the Universe series from Time-Life Books™, this interactive documentary shows how the sun, the moon and Earth aligned to form the July 11, 1991, solar eclipse.
Mac \$49.95 44043

Multimedia

Gadget

Great Value!
Save a futuristic retro-world from imminent destruction by a comet that's on a collision course. Go to the station, board the train, get instructions and clues from the people you meet on the way as you collect the "gadgets" you need to save the world. Travel throughout the most lavishly rendered virtual world you've ever seen while collecting the parts and pieces of the equipment necessary to fulfill your instructions. Packed with textured interior renderings and complex QuickTime segments, it's a "must have." Winner of Japan's highest award for multimedia software.

ITEM	PRICE	CAT. #
GADGET	\$59.95	44102



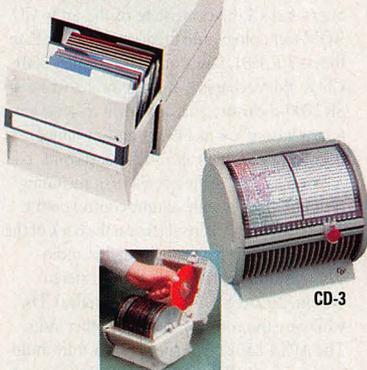
Multimedia Drawer

If you have lots of CDs to keep track of, but hate abandoning the jewel box that protects them, get the multimedia drawer from Fellowes. Imaginative and convenient, each drawer unit stores and protects 20 CDs in their jewel boxes. These drawer units interlock on the top and side to form an expandable storage system that can accommodate hundreds of CDs!

MULTIMEDIA DRAWER

ITEM	PRICE	CAT. #
5-1/4" (SINGLE)	\$24.95	49206
5-1/4" (2 PK.)	44.95	49208

Multimedia Drawer



CD-3

Sentry Interlocking CD Storage System

This compact and elegantly designed CD storage rack takes up only a tiny bit more room than the 24 CDs it holds. Units can be positioned vertically or horizontally, and can even be wall mounted. The patented interlock system allows multiple units to form a single sturdy storage system that can expand as your CD collection grows.



ITEM	PRICE	CAT. #
SENTRY CD STORAGE SYSTEM	\$9.95	42208

CD-3

I never could find room to store my CDs until the Compact Disc Storage System from CD-3 solved the problem. It stores 40 CDs, safely spaced for optimal protection, in less than one-third the space of jewel box storage. CDs are easy to find, too; just line up the slider with the title and open the top. There's even a handle to let me carry my collection safely.

ITEM	PRICE	CAT. #
CD-3 WHITE	\$29.95	42290
CD-3 BLACK	29.95	42294

CD ROM Caddy & Jewel Boxes

These CD ROM caddies are the same ones that ship with most CD ROM drives.

Order several today...make life with your CD ROM drive so much easier! Our replacement jewel boxes are identical to the originals. They're available in packs of four for just \$10.

ITEM	PRICE	CAT. #
CD ROM CADDY	\$7.95	42270
JEWEL BOXES (4-PACK)	4.95	44507

CD-25

Elegant, aesthetic, functional - that's what they're saying about the new CD-25 CD storage rack. Store up to 25 CDs in their jewel boxes for instant retrieval with this solid, good-looking storage unit.

ITEM	PRICE	CAT. #
CD-25	\$19.95	42296

CD-25



GRAPHIC DESIGN/MULTIMEDIA



Down To Earth

Down To Earth contains over 750 high-resolution color and monochrome PICT images, all photographed or drawn by Joseph Haveman. Also included are the original file formats (TIFF, EPS and MacPaint). **Mac \$129.95 44048**



Font Fun House

The Font Fun House disk contains hundreds of fonts for your Macintosh and IBM compatible computers. It contains shareware and freeware fonts in TrueType or Type 1 PostScript (ATM) formats. Printer fonts, not included, can be used to see the fonts available and get a feel for how they look. **Mac \$19.95 44052**



Incredible Image Pak

The ultimate art collection for persuasive visual impact. Over 2,000 versatile full-color EPS images skillfully designed by professional artists for easy use with popular Macintosh applications. **Mac \$89.95 44095**



Music Madness Vol. 1

Music Madness Volume 1 provides 640MB of music, sound tools and effects clips. Music Madness also offers 318 8-bit System 7 sound files. You may use all of the music on this CD ROM for your multimedia productions, simply by giving the appropriate credit. **Mac \$59.95 44053**



Music Madness Vol. 2

Music Madness Vol. 2 provides 645MB of music, sound tools and effects. Use the 158 music clips provided to build your own tunes. Six music topics are available including jazz, rock, funk, Latin, drums or cool licks. **Mac \$59.95 44054**



Photo Pro Vol. 1 Patterns of Nature

Patterns of Nature contains over 100 high-quality images of nature scenes from some of the Midwest's most noted professional photographers. It contains the work of photographers Stephen Le Doux, James Balfour and Thomas Hetzel. **Mac \$29.95 44055**



Photo Pro Vol. 2 People Doing Things

People Doing Things is a disc full of images with people in various situations. From work environments to leisure activities, you will find a wide variety of images in TIFF formats that show how we work and play. **Mac \$29.95 44056**



PhotoPro Vol. 3. PhotoBank

The PhotoBank disc has over 500MB of high-resolution color photographs never published before. Each photograph is available in three formats. **Mac \$29.95 44057**



Quick Art Lite

Quick Art Lite contains over 1500 300 dpi TIFF images suitable for use in desktop publishing and presentations. Some of the topics include animals, borders, energy, flowers, food, holidays, mail, maps, money, occupations, office, people, science, sports and travel. **Mac \$79.95 44050**



Quick Art Deluxe

Quick Art Deluxe offers over 3000 professionally drawn clip art images from Wheeler Arts. The disc includes all 1500 files in Quick Art Lite, and all are in the 300 dpi TIFF format. Among the numerous topics are buildings, celebrations, education, gardening, medicine, music, mystery, tools, toys, nature and much more! **Mac \$229.95 44051**



Soundations

Soundations is a collection of over 1000 selected WAV format (Windows) sounds for any multimedia application. All Mac sound clips are stored in System 7 sound format. **Mac Win \$29.95 44067**



SpaceTime and Art

Space Time and Art contains 24-bit color graphics and reference materials on the subject of outer space. Some images are from NASA Voyager views; others are the artist's original fantasy paintings. QuickTime movies on recent cosmological theories are included. **Mac \$69.95 44049**



Trick of Light

One hundred backgrounds for multimedia with a difference! Includes cool lighting effects as separate files. **Mac \$59.95 44066**



Wraptures One

A library of over 130 seamless, tileable, photo-quality textures in PICT format, with their own color-browser utility. Over 470MB of textures from shrubbery to stars, from sunrises to a school of piranha, all ready to use anywhere you can make use of a PICT file. **Mac \$79.95 44061**



Wraptures Two

More Wrapture textures encompassing a wide range of images; animal skins, brick, concrete & stucco, crystal & glass, foliage, food, granite, gumbo, marble, metal, natural scenery, paper & fabric, rock, stone, water and wood. **Mac \$79.95 44062**



Xplorations

An exploration into abstract digital imagery. These images may be used in interactive multimedia, video productions, slide shows, publications, 3-D rendering and virtual reality. **Mac \$49.95 44092**

MUSIC & SPORTS



A Hard Day's Night

Meet the Beatles and make your Mac rock and roll! This QuickTime version of A Hard Day's Night brings you the entire 90-minute black and white film, with lots of entertaining extras. This CD ROM edition also gives you the complete script, an essay by film historian Bruce Eder about the Beatles and their music, the theatrical trailer, the 1982 re-release prologue and clips from director Richard Lester's other films. **Mac \$29.95 44026**



Ludwig von Beethoven: Symphony No. 9

This CD provides a single-screen overview of the entire symphony in a pocket guide, Beethoven's World which examines Beethoven's life and times, the Art of Listening that explains the inner workings of music, and the Ninth Game which uses passages from the CD to challenge the listener's understanding with questions and answers. **Mac \$69.95 44024**



Mozart: The "Dissonant" Quartet

Featuring an exclusive performance by the famed Angeles Quartet! You'll learn about the instruments of the string quartet through beautiful images and specially recorded audio supplements. **Mac \$39.95 44027**



The Orchestra: The Instruments Revealed

This Audio Notes release includes the complete digital recording of The Young Person's Guide to the Orchestra by the London Symphony Orchestra, conducted by composer Benjamin Britten. **Mac \$39.95 44041**



Schubert: "The Trout" Quartet

"The Trout" includes a pocket guide with an overview of this Schubert work, close reading that features real-time commentary while the music plays, a classical background that explores the musical currents that influenced the creation of the quintet, an inside look at Schubert's life and times, and much more. **Mac \$39.95 44028**



Stravinsky: The Rite of Spring

This CD provides an on-screen overview of "The Rite of Spring," a review of the life and times of Stravinsky's world, the Rite of Dance which discusses the original production and choreography of the ballet, Rite Listening which explores the inner workings of Stravinsky's music, a real-time commentary to accompany the entire work and a challenging question-and-answer game using passages from the CD. **Mac \$69.95 44025**

50
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APS C 525

If the high cost of quality drives is keeping you from enjoying the fun and convenience of CD ROM, APS has a drive that's compatible with both your computer and your pocketbook. The C 525 is unbelievably inexpensive for a dual-speed CD ROM drive, but still has all the quality APS drives are famous for. The 286KB/sec sustained read is more than enough speed for your games, information, education and utility CDs. Like all our drives, DataTerm is included to regulate and optimize your SCSI bus.

ITEM	DRIVE CODE	INTL	SR 2000
APS C 525	H01	\$149.95	\$199.95

Now Only **\$199⁹⁵**

Unbelievable CD Bundle Deals!

If you're looking for a real deal on multimedia, get a load of these incredible bundle deals for CD ROM multimedia systems.

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We found a great bundle offer on four hot CD ROM titles, and we're offering it to you with ANY APS CD ROM drive! You'll get the following CD ROM titles:

- Multimedia Encyclopedia (by Grolier)
- World Atlas
- Encyclopedia of Life
- Encyclopedia of Dinosaurs



\$99⁹⁵

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Here's a multimedia bundle package we're offering to you with the purchase of ANY APS CD ROM drive! You'll get the following CD ROM titles:

- Sound FX
- Pro Photo Collection
- Essential Backgrounds
- 1,000 Fonts
- International Graphics Library
- Multiware
- Multimedia Music (not shown)



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CAT. #44099

A \$400 Value! That's right! With any APS CD ROM drive purchase, you can buy this amazing bundle for just an additional

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#2

If you already own a drive, you can still take advantage of one of these really great bundle deals...

- US Atlas
- Class Room
- Encyclopedia of Life
- World Atlas
- Encyclopedia of Dinosaurs
- 10 CD Storage Unit



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OR... get this really great multimedia bundle...

- Sound FX
- Multimedia Music (not shown)
- International Graphics Library
- Multiware
- CD-25 Holder
- Maxell Speakers



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CAT. #44100

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New CD ROM Bundles for Everyone

CD ROM is booming, and it's no wonder. It's about the most fun and intriguing thing to happen to computers since the invention of the color monitor. But a CD ROM drive without a load of intriguing CDs isn't much fun at all. That's why I went back to the drawing board for the Fall Catalog and put together four new CD ROM bundles that are not only our hottest deals ever, but are simpler than ever to buy.

Already have a CD ROM drive, or thinking about a new computer with built-in CD ROM? Check out our CD bundle with 5 CDs and a 10 CD holder for only \$69.95. This is the bargain I am most proud of! For you multimedia freaks, there is also a terrific bundle including 4 CDs, our sleek CD-25 CD ROM holder and a set of Maxell speakers, for just \$149.95.

Say you haven't experienced CD ROM yet? No problem! While you're deciding which APS CD ROM drive to choose, decide between the other two bundles. They're so special you have to buy a new APS CD ROM drive to get one. Which will it be — the educationally-focused four CD bundle, including the Multimedia Encyclopedia by Grolier for just \$99.95, or our multimedia bundle with 7 great CD titles for \$199.95?

No matter which bundle is right for you, be forewarned. Once you get your hands on one of these CD ROM bundles, you might not have time to use your computer for anything else!

51
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CUSTOMER SERVICE...

is what we stand for. If you have an inquiry about your order, feel that you order is incomplete or inaccurate, need to return a product for credit, or just need a question answered and don't know who to call, just call Customer Service. They'll answer your question or help you find an answer to your question. Our Customer Service Agents are here to help. The Customer Service Department is available at 800-874-1427 from 8 am - 8 pm Monday through Friday and 9 am - 5 pm Saturday (Central Time).

OUR GUARANTEE

- All products, except opened software, carry a 30-day, no-hassle, money-back guarantee. Just have the "as-new" product back in our hands by the date indicated at the bottom of the invoice. Your risk in the transaction is the cost of shipping.
- Disk-for-disk repair or replacement warranty. Drive and tape product warranties are listed individually with each product. Media and RAM products carry a one-year warranty.
- All prices and specifications are subject to change without notice.
- All drives include brackets, cables, cards and LEDs required for operation with the specified Macintosh or PC. All hard drives come preformatted with Apple's System 7.0.1 software, and APS Technologies' "APS PowerTools" SCSI formatter/hard disk partitioner.
- All external drive products and cases come with a premium 25 x 50 SCSI cable. Companion II drives (not cases) include a Premium 25 x 50 PowerBook SCSI cable and a SCSI BOY.

TECHNICAL SUPPORT

Toll-free! APS Technologies offers you toll-free, award-winning technical support from 8 am to 8 pm, Monday thru Friday, 9 am to 5 pm Saturday, (Central Time). The APS Technical Support number is 800-334-7550. Our technical support representatives are here to help solve your technical problems.

A NOTE ABOUT CREDIT CARD PURCHASES.

When you order from APS on a credit card, your card is never charged until the order is shipped. Orders purchased with a Discover Card, MasterCard or VISA and which can be shipped immediately are authorized with your bank through the credit card company. This authorization sets aside a portion of your available credit on that card. If, when attempted, an authorization cannot be obtained from your bank, you will be contacted by APS. Authorization is made by your sole discretion and questions concerning authorizations or lack thereof should be directed to your bank.

Typically, an authorization stays in place for about two weeks (depending on your bank's rules and procedures) and expires after that time automatically if the purchase charge is never received by the bank. Products which are backordered are not authorized until they are ready to ship, and do not reserve part of your available credit until that time. If you cancel a purchase that has been authorized, the authorization will expire on its own, but you may not have access to your entire credit balance for several days. If this presents a problem for you, you should contact your issuing bank.

Customers who have purchased on a credit card and subsequently returned the product for credit will receive that credit within 7 - 10 days. It is typical for this credit to take up to two full credit card cycles for this credit to appear on your monthly statement. If, after two billing cycles, your credit has not appeared, please contact APS.

All prices and specifications in this catalog are subject to change without notice.

52
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CLOSEOUT ITEM	ITEM #	REG. PRICE	CLOSEOUT PRICE
HARD DRIVES			
Maxtor 7290 (3.5" Internal Drive)	X10	\$279.	\$159.95
Quantum 525 (3.5" Internal Drive)	47	379.	249.95
Toshiba 213 (PowerBook Internal Drive)	24	269.	229.95
DAYSTAR ACCELERATOR CARDS			
Quad 040	43446	1,449.	699.95
Turbo 040 33mhz	43438	1,029.	599.95
Value 040 w/FPU	43440	1,029.	599.95
50mhz Powercache w/Chip	43430	609.	399.95
Fast Cache Quadra	43444	329.	129.95
Adapter 700 Slot Saver for Quad 040	43462	119.	89.95
Adapters for Mac II	43450	119.	89.95
Adapters for Mac IIcx	43454	119.	89.95
Adapters for Mac IIsx	43456	119.	89.95
Adapters for Mac IIfx	43452	119.	89.95
Adapters for Mac LC, LCII	43458	119.	89.95
Adapters for Mac LCIII	43460	119.	89.95
CARRYING CASES			
Madson PowerBook Sac, Black (0) Green (5) Purple (3)	4257(X)	59.	19.95
WraP PowerBook Case, Camouflage (6), Hot Pink (4), Black (3)	4253(X)	67.	29.95
CLEANING PRODUCTS			
PerfectData Video Screen Cleaning Kit	40910	14.	5.95
PerfectData Laptop Valet	40970	39.	15.95
MEDIA STORAGE			
SRW Micro 5 Compak, Blue (0), Champagne (5)	4224(X)	9.	1.95
SRW Micro Disk 10, Blue (0), Champagne (2)	4221(X)	4.	1.95
Fellowes Disk File	42280	5.	1.95
Fellowes Lock-N-Go	42282	9.	3.95
Fellowes Step Cube Plus	42284	11.	5.95
MODEMS			
PSI Modems			
14.4 Baud	42418	299.	79.95
2400 Baud	42411	99.	39.95
POWER PRODUCTS			
Perma Power PXD 209 (2 outlet surge strip)	41510	45.	19.95
Perma Power RS 410 (4 outlet surge strip)	41610	65.	29.95
Panamax Max 4 (4 outlet surge strip)	40640	59.	29.95
Panamax Telemax 2 (surge strip w/phone)	40646	39.	29.95
SOFTWARE			
Disk Lock PowerBook	41378	57.	15.95
Magnet	41373	89.	9.95
Paperless Printer	41384	49.	9.95
Public Utilities Software	41374	99.	9.95
MISCELLANEOUS ITEM			
Mouse Pad, Black (5), Blue (4), Gray (3), Plum (2), Red (1)	9000(X)	9.	2.95
Interex PB Tool	40110	11.	4.95

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APS MX 290
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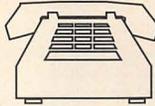
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SAMPLE 49	711	ES	Mac IIci	APS T3501			1	\$299.95	\$299.95

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HOW TO ORDER DRIVES

DRIVE ORDER INFO:

In order to properly deliver your drive order, we must have accurate information from you about drive choice, your Macintosh or PC model – internal or external configuration and, in the case of external configurations, the enclosure style. See sample above.

MAC OR PC MODEL

Please provide exact information about the model of your Macintosh or PC. Internal drives for Mac II and Mac IIci (for example) models are NOT interchangeable! Some drives will not fit inside all Macintosh models. External models of 5.25" drives are only available in "EF" (external 5.25" full-height) enclosures. 2.5" drives are only available in "SR10" and "SR1000" enclosures. SyQuest Drives are available in "ES" enclosures or "1" for Quadra 900 and 950.

CONFIGURATION CODES FOR HARD DRIVES AND TAPE DRIVES

Tape drives are available in several case styles as indicated below. Some models may be available for internal installation in Quadra 900 and 950 models. Options other than those listed are not available.

APS DAT & HyperDAT I or ES
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 2.5" Drives I or SR1C (AC/DC)
 SyQuest 3105 and 3270 I or ES or SR10
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 5.25" Hard Disk Drives I or EF

CONFIG/ENCLOSURE.....CODE
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APS T3501



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Once in a great while, you can buy cutting edge technology and get a great deal.

So what's this great deal, you ask? Okay, I'll lay it on the line: Quad speed CD ROM. SR 2000 with Digital Active Termination. \$299.95

WHAT?

Go back and read it again, if you didn't get it the first time. For less than the cost of lot of companies' 2x drives, you get 4x performance (that's right, *quad speed*). How fast is that? Try an average access time of 149 ms, and sustained transfer rates as high as 534KB/sec. But forget speed for a second (if you can). Remember, you also get the best-engineered enclosure in the industry. Full metal shielding, stackability and APS' Digital Active Termination are a combination you can't find on comparable drives at any price. You also get all the extras, like dual mini-plug/RCA jack output, full Kodak Photo CD compatibility (with the proper software, of course) and APS' premium software package, APS PowerTools 3 for CD ROM.

Hey, with this much going for it, even choosing the APS T-3501 will be quick work!

ITEM	PRICE	CODE
APS T3501 (QUAD SPEED!)	\$299.95	T11

Hi!
 I'm Jennifer. Let's talk
 Quad Speed Barkins.



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