

# SUN times

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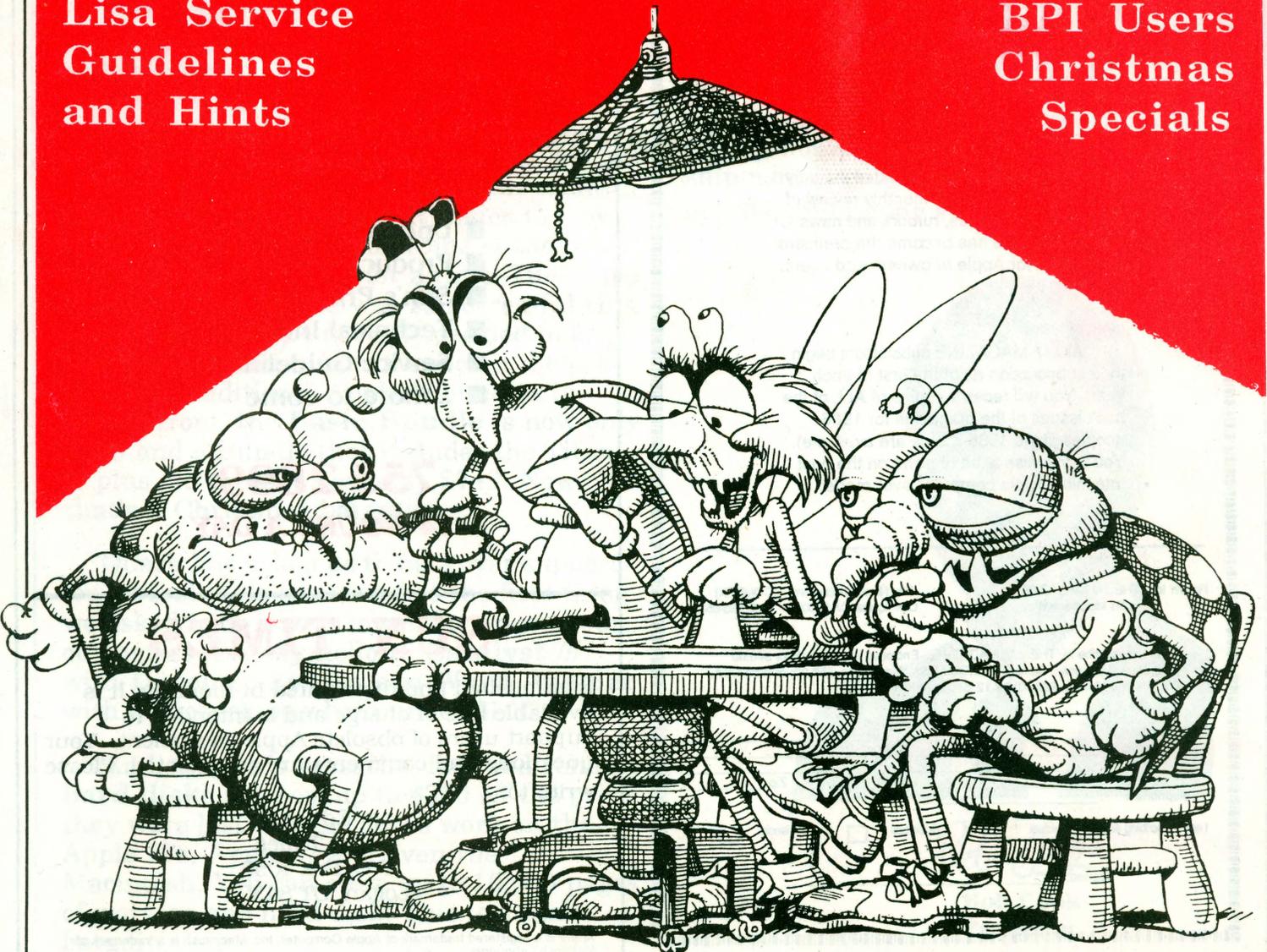
SUN SYSTEMS REMARKETING NEWSLETTER

NOV/DEC 1986

## Treating System Bugs

Apple III and  
Lisa Service  
Guidelines  
and Hints

Welcome to  
BPI Users  
Christmas  
Specials



# THE /// MAGAZINE

is THE source for APPLE /// owners!

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/// INFORMATION  
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SOFTWARE REVIEWS  
BUSINESS TIPS  
FUN



## OUR 3RD YEAR

Our magazine, successor to THE /// NEWSLETTER and founded January 1, 1985, is an international monthly review of Apple /// tips, articles, rumors and news. The /// Magazine has become the premiere publication for Apple /// owners and users.

All /// MAGAZINE subscribers begin their subscription as of the first of each year. You will receive copies of ALL of the back issues of the magazine for 1986 (copies of the 1985 issues are available). You won't miss a bit of news on the best machine Apple computer ever made.

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## Our Bulletin Board Is Back!

If you're looking for information on your Apple ///, wanting to tryout a new modem, or looking for a Bulletin Board you can call your own, with your own private mailbox, call Sun's Bulletin Board.

You don't need a password, just use DEMO. Some of the information on our system includes:

- Disk /// Technical
- CP/M on the ///
- Product Descriptions
- Upgrade Articles
- Product Articles
- Sun's Price List
- Technical Information
- Service Guidelines
- ...more to come

**753-2899**

**24 HOURS A DAY**

## SUN TIMES

is published and distributed bi-monthly. It is available free of charge and is intended to support users of obsolete Apple equipment. Your questions and comments are appreciated. Please write to:

Editor  
Sun Times  
P.O. Box 4059  
Logan, UT 84321

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# Personal Notes

Another month slips by and it's time for the final newsletter for 1986. It's been a great year for us at Sun! We've seen a lot of additions to our family of customers and would like to express our thanks to your support of our concept of remarketing.

We appreciate the letters and phone calls that come in expressing joy than someone is willing to support the obsolete computer many of your own and use everyday. We too, feel that obsolete does *not* mean useless. Anyway, have a great holiday season and the best luck the new year can bring from all of us to all of you!

Now, on to what's happening this month. Some exciting news when it comes to new items and lower prices on some of the ones that have been around for a time. The Apple /// and Profile bundle was so successful this past month that we not only decided to keep the special running but to sweeten the pot with two additional Apple /// bundles to choose from. The **Basic Bundle** is now only \$599 and a Bundle that includes the Titan /// plus IIe cards is now only \$749! Now that's a Christmas bargain.

Quark has asked us to take over support for several of its items and so the first thing we asked to do was to lower the price to our customers. So, say hello to **Catalyst ///** with Discourse Spooler and **Word Juggler** with Lexicheck now both under \$100!

And, **Quark's** versatile, fast and reliable **hard disks** are now up to \$300 off the price they were last month. These work on the Apple II's, Apple /// and even the Macintosh. You can store up to 10,000 pages of work on one hard disk! This is a real bargain.

New also this month is the **Comrex Deluxe Joystick** that we were able to pick up and pass along a considerable savings to you. It originally sold for \$89 and we are able to sell it for only \$14.95. It fits a whole bunch of computers and is an excellent buy. It's even adjustable.

We also picked up a good supply of reconditioned **Macintosh 400K external drives**. So, tell your Mac friends they can buy the same one their Apple dealer sold for \$400, now at Sun for only \$79.00. That's right...only \$79!. We have **MacWrite/MacPaint** programs on sale too. See our ad on page 14 for details.

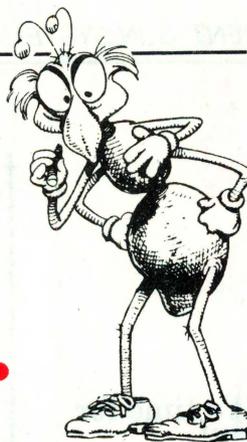
I couldn't leave without telling you about the *best buy* of the Christmas season. The **Titan /// plus IIe** cards are now on sale. Get yours in time to play the new games out during this season. Our special Christmas price is half of our regular low price. Pick one up now before this special limited shipment is gone. See the ad on page 12 for details, and happy shopping!



*Bob Cook*

**Bob Cook**  
President

# When Bugs Get In The System...



**Sun Remarketing** specializes in service and support of the Apple /// and Lisa/Macintosh XL computers. Current owners and future buyers of this equipment need not worry when their Apple dealers give them a blank stare because of unfamiliarity with these machines.

Sun Remarketing uses the same diagnostic equipment that the service technicians at Apple use. We try to have your machine repaired or the troubled part exchanged within 48 hours (in most cases 24 hours) and shipped back to you according to your specifications. We also have available UPS Next Day Service (RED Label). In many cases you would receive your repaired machine quicker than you might receive it from an Apple dealer because we fix them on site eliminating the need to return the bad part to Apple and wait for an exchange part.

After you have decided that your machine needs repair there are basically three options available.

**1. Computer Exchange.** This option is the most costly but requires the least amount of effort on your part. If you feel that your machine is a lemon or you need a fast solution to your problem and you don't want to

tinker with it yourself, we can send out a replacement machine. You will be charged full price for the machine, and when we receive your machine back at our location we will issue a pre-agreed core refund.

**2. Part Exchange.** If you are brave enough to turn a screw driver, this option will save you money. We will help you find the major component that has failed in your computer. The Apple ///, for example consists of just five major components, power supply, mother board, memory board, disk drive and keyboard. Most problems are easy to trace to one of these components and we can send its replacement quickly. Every board comes with an easy to follow installation sheet. You can put your defective component in the same box that we used to send you your replacement component and return it for a core refund.

**3. Ship it to Sun for service.** This option costs about the same as the parts exchange option with the added benefit of having one of our technicians do the work. We will perform the service quickly, but you will have to wait for shipping in both directions. This may be the best solution if you have multiple problems or one that is hard to find.

Our service department is staffed with qualified technicians ready to answer your questions and help you with your problems. Our service number is (801)-752-7631. Below we will explain some of the problems that you might have so you will have a better feel for your problems before you call us.

Service on the Lisa is simple. Every time you turn your machine on, the computer goes through a diagnostic test. You will see an icon of the bad component on the screen with an X through it. (see example) Then just simply call Sun with your order for the replacement component.



Card cage



I/O board



CPU board



Memory board

The Apple /// is not quite as simple, but nearly so. As noted before, the /// is made up of only five major components. In the long run it is often cheaper to just replace the single component than to go through the timely process of troubleshooting to chip level.

The following is a chart of all known Apple /// SOS (system) errors, possible causes for these errors and what you can do about them.

Apple /// SOS errors can be broken down into two areas: Fatal and Non-Fatal. Fatal errors stop the computer immediately and display a cryptic "System Failure" message in the lower right hand corner of the screen. Non-Fatal errors are returned by SOS to the program, which may then report them to the user. Both errors are reported in base 16 (hexadecimal) numbers.

# FATAL ERROR CODES - APPLE ///

ERROR #	DESCRIPTION	POSSIBLE CAUSE	POSSIBLE SOLUTION
\$01	BADBRK - The Apple /// tried to execute a BRK instruction code while another BRK instruction was in progress.	1. The memory containing SOS or a device driver is bad. 2. The user has shocked the machine.	1. Replace the memory. 2. Get rid of static electricity before using the machine.
\$02	BADINT - The Apple /// received an attention signal from a peripheral card that it didn't know what to do with.	1. The user has shocked the machine. 2. The machine contains an interface card, but SOS either has an incorrect driver for the card or has no driver to handle the card.	1. Get rid of static electricity before using the machine. 2. Remove the card or install a proper driver for that card.
\$03	No Error exists for this number		
\$04	NMIHAND - The Apple /// tried to disable the RESET key, but the user or a peripheral card has "pressed" it at about the same time.	1. The user has pressed the RESET button while a copy-protected program was trying to lock up the system. 2. An interface card has gone "bad".	1. Don't press the RESET button. 2. Replace the interface card.
\$05	EVOOVFL - The Apple /// is receiving too many event requests.	1. A program has told SOS to ignore events. 2. An interface card has gone bad.	1. Complain to the program developer. 2. Replace the card.
\$06	STKOVFL - Stack overflow	1. Memory has been damaged. 2. The user is using a bad copy of a copy-protected program. 3. The program has a bug in it and has made too many subroutine calls, a bad return call, or has decremented the stack pointer.	1. Replace the memory. 2. Use an original copy of the program. 3. Complain to the program developer.
\$07	BADSYSCALL - the device system has detected an invalid control or status request.	1. Memory has been damaged. 2. Either SOS or a driver has gone crazy.	1. Replace the memory. 2. Use a different copy of SOS.INTERP or SOS.DRIVER.
\$08	MCTOVFL - Too many device drivers.	1. Someone has used an older version of the System Utilities program to install too many drivers. SOS limits the number of drivers to 15 character (i.e. .Printer, .Console) and 15 block (i.e. .Profile) drivers.	1. Remove some drivers.
\$09	MEM2SML - Memory too small	1. Memory has failed. 2. Someone is using an old Apple ///. Apple recalled all machines that would report this kind of error in 1980.	1. Replace the memory. 2. Replace the computer.
\$0A	VCBERR - The system buffer control block has been damaged.	1. Memory failure.	1. Replace the memory.
\$0B	FCNERR - The system file control block has been damaged.	1. Memory failure.	1. Replace the memory.
\$0C	ALCERR - Allocation blocks are invalid.	1. Memory failure.	1. Replace the memory.
\$0D	No error exists for this number.		
\$0E	TOOLONG - Filename too long	1. The complete filename (i.e. the file name + any prefixes) is too long.	1. Shorten all file names, including any subdirectories.
\$0F	BADBUFNUM - Bad buffer number.	1. The user is using a bad copy of a copy-protected program. 2. Memory has been damaged	1. Use original copy of program. 2. Replace memory.
\$10	BADBUFSIZE - Bad buffer size.	1. Bad memory.	1. Replace the memory.

Compiled by Harold H. (Humble) Stuart - Technical Representative, Sun Remarketing.

**NEXT ISSUE: Apple /// Non-Fatal Error Codes.**

# When An Accounting System Makes Cents



The BPI Accounting Series has for years been the best selling accounting package on the Apple computer. The readers of A+ Magazine have consistently voted BPI as their first choice in accounting software. BPI has been constantly improved over the last seven years and evolved as the most reliable software package in it's class. BPI has the largest installed user base of any accounting program on an Apple Computer.

BPI has earned it's reputation on reliability. The latest versions of BPI is by far the cleanest code for accounting available on an Apple computer.

If you already own BPI you may contact Sun for upgrades to your software and you are eligible for discounts on the other modules to round out your accounting needs.

This means that the user of BPI Accounting Systems will be able to buy product at Sun's discounted prices, continue to receive tax table updates for Payroll modules, and be able to call for support on their BPI software.

Over a year ago we negotiated a contract with Apple Computer, Inc. to sell, service and support their obsolete computer products.

We feel that a computer as useful as these computers which Apple built their business on can hardly be considered "obsolete" just because Apple stopped

building them. And most users of these "obsolete" computers are not about to throw them in the trash.

These computers have a proven reliability. We know what they can do best, and one place they really shine is in accounting. In our search we have found the most reliable accounting software to be from BPI Systems, Inc. of Austin Texas. Sun Systems Remarketing and BPI Systems have signed an agreement to transfer the marketing and support of the BPI accounting series for the Apple //, the Apple ///, and the Lisa computer systems.

## General Ledger

BPI General Ledger is the heart of the accounting system. It allows you to design your own chart of accounts for your business. This becomes the foundation for all the accounting in your business. You will have control of your company's assets, liabilities and expenses. With the push of a few keys you can have detailed reports of purchases, cash receipts, accounts receivables and payables.

Entering this information is a snap. Just key it in from the paperwork your business is already using like invoices and check stubs. You can sit down to your computer once a day or once a week to quickly update the computer.

You'll be amazed at the control you will have over your business when this information is close at hand. The reports are detailed so you will save money at tax time by quickly getting all the accounting detail you need to file your reports. The General ledger will generate balance sheet reports, and profit and loss statements. Think of how much easier your decision making will be with the aid of this powerful accounting package.

## Accounts Receivable

BPI Accounts Receivable is a lifesaver for managing the money others owe you. Statements of the money due you is just a push of a button away. The A/R system will even age the old accounts and add finance charges to the statement. That motivates your customer to pay and proves to them you are on top of your business.

From the accounts receivable package you can produce a useful aged trial balance of all your accounts aged in the category of current, over 30 days, over 60 days, over 90 days and over 120 days. The report is in one place with names and phone numbers so the problems of accounts receivable can be taken care of.

Your whole computer investment can quickly be justified by collecting on just a few bad accounts. If one of your customers calls with an accounts receivable question, it is a simple process to make a system inquiry by pushing a few keys on your keyboard. You could even produce a single statement as a quick follow up. All the information from BPI Accounts Receivables is quickly updated in the BPI General Ledger.

## Accounts Payable

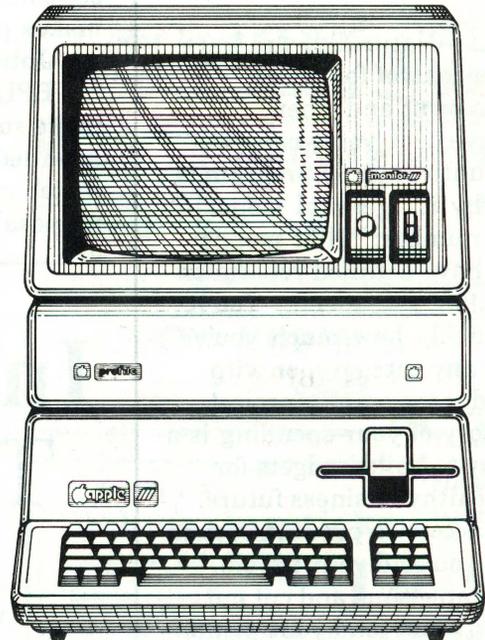
BPI Accounts Payable is a great tool for managing cash flow. It will track all purchases and print the checks when they are due. It can even take advantage of quick payment

*CONTINUED ON PAGE 8*

# Save a bundle on the whole kit and kaboodle.

This bundle means business. Here's all the power you need to tackle the big jobs. No computer on the market today has ever matched the Apple /// when it comes to small business accounting. With 256K RAM and a ProFile hard disk you can store up to 2,400 pages of information. That's a lot of debits and credits.

And if the power isn't enough to convince you the price certainly will. We have a very limited quantity of these special bundles to sell. Hurry and order yours...the kit, the kaboodle and all!



Bundle Includes: Computer, Monitor and ProFile Hard Disk

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Unless otherwise noted equipment is reconditioned with a 30-day warranty. Manuals are not supplied with reconditioned equipment but are available separately at extra cost. A complete copy of Sun's Warranty is available on request

## **SPECIAL CHRISTMAS BUNDLES...**

**Basic Bundle.....**

A great starter system for home of business. Contains: Apple ///, 256K and Monitor ///.

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**Double Bundle.....**

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**\$ 749**

## Making Cents With BPI-Continued

discounts. Naturally, you have complete control for which checks to print and when.

Every check you write with the accounts payable program is tracked by its general ledger account number. That means you can have detailed reports on every dollar you spend. You'll know quickly how much you've spent in any category, or with any vendor, or on any project. The history of your spending is a great way to build budgets for your a healthy business future.

The accounts payable system will free you and your people with valuable time and cut out mistakes. Just load your printer with checks and push a button on your keyboard and the burden of paying bills is cut to simply signing a check. That means added control and profit in your company.

### Payroll

Remember last payday? You were up to your elbows in government tax tables trying to calculate deductions. Between employees demanding a check and the government demanding their percentages you are wondering if it's worth the hassle. Not to mention the mountain of quarterly and yearly forms that payroll taxes require.

How much would it be worth to have all that burden taken off of you? Let your Apple Computer do the work with BPI Payroll. Instantly, payroll deductions

can be calculated and checks printed with BPI Payroll System. All accounting information is automatically updated in the general ledger. Reports on the government obligations are quickly generated.

At the end of the quarter and the end of the year government filings are a breeze because all the information is provided by the reports from BPI Payroll. W-2's and other forms are fully supported. The payroll package makes payday a breeze.

### Job Cost

BPI Job Cost is a super way to make sure the proposals you are awarded are profitable. You can match your accounting to the proposal to quickly measure if

you are under budget in any aspect of the job.

Sun invites you to buy BPI Accounting. Just like everything we sell, your satisfaction is guaranteed. We will cheerfully refund your purchase on any item we sell if you are not 100% satisfied. When ordering the BPI software specify Apple ][+, Apple // 80 column screen, Apple ///, or Lisa Computers.

All modules are special priced at \$159.00 except Apple /// priced at \$89.00. Every module can be tried for 30 days with a complete refund if you decide for any reason not to keep it. Computer accounting will change the way you do business for the better.

# Introduce Yourself To Extra Savings

We'd like to welcome our newest customers with an extra special offer. To help introduce you to Sun Systems we are offering an extra \$30 in savings off our regular low BPI Accounting prices. Our regular price for Apple II modules is \$189, but for a limited time you can help yourself to extra savings!

YOUR CHOICE

\$ **159**

General Ledger - Apple ][+  
General Ledger Apple IIe and //c  
Accounts Payable Apple ][+  
Accounts Receivable Apple ][ or ][+  
Payroll Apple ][ or ][+

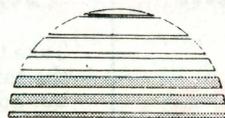
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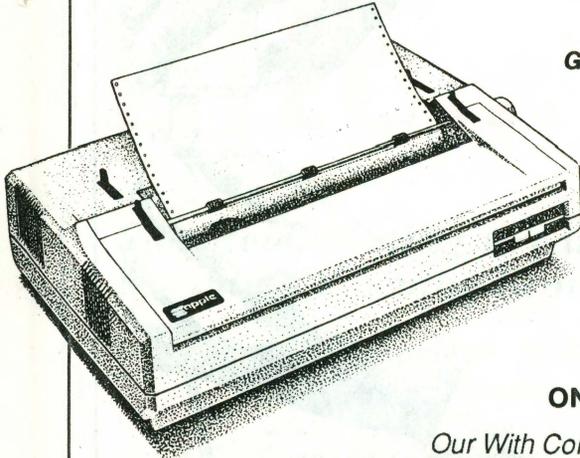


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We warrant each new product we sell for 90 days. If within that time you are not satisfied we will either replace or refund.

**Great Prices - Guaranteed!**



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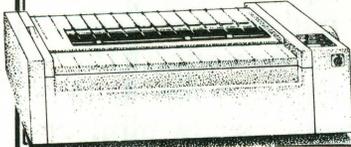
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ProFile™ 5mb	<b>\$595</b>	works on Apple II and ///

ProFiles are reconditioned - Each comes with a 30 day warranty.

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**\$599**

- 256K - Easy-to-use keyboard
- Computer Monitor Disk Drive
- 4 Expansion slots
- Great for business applications

Reconditioned - Warranted  
With 5Mb ProFile \$999

**SPECIAL BUY!!**  
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WHILE THEY LAST **\$19<sup>95</sup>** ONLY

**400K Disk Drive**  
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**APPLE® MODEM**  
**\$89**

- Hayes compatible
- New

1200 BAUD \$195

**Comrex** **NEW - IN BOX**  
**Deluxe Joysticks**  
• Compatible with Apple and Franklin  
Also for use with Atari 2600, 400/800  
Commodore 64 and Vic 20  
Sears Video Arcade & ColecoVision  
• Can be "fine tuned" for different players  
**\$14.95**  
Ile Adapter 2.00 additional

**SELECTED APPLE /// SOFTWARE PRODUCTS**  
**ALL IN STOCK READY TO SHIP!**

**GREAT CHRISTMAS GIFT!!**  
**TITAN /// plus Ile**  
Suggest List \$499.00  
Emulates Ile on Apple ///

**Titan /// + Ile Emulation Cards**  
**Run Ile Programs On Your ///**  
LIMITED OFFER

- 80 column/128K Emulation
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- Ile Joystick works great
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**\$199**  
INSTALLS QUICKLY - EASILY Reg. 399.00

**FULL SERVICE AND SUPPORT**  
**We are not liquidators...**

Introduce yourself to a fresh new concept called Remarketing. Sun Systems is the nation's largest support center for obsolete Apple products. For questions, service and support call Sun Systems. Each product we sell carries a satisfaction guarantee. We are not satisfied until you are!

The

TM

**Lisa Professional**

LISA HARD DISK UPDATE

# Making The Connection

I know it may come as a shock to you, but the Lisa, when it was introduced had a few problems. The most plaguing of which was the hard disk controller (Widget). Having made a large a commitment to the Lisa (Macintosh XL), we at Sun decided to re-engineer the controller card.

We took our wish list, with the good wishes and support of Apple, to ProApp, one of the best hard disk developers in the marketplace. What we've come up with we are really quite pleased, and we think you will be too!

The new Sun controller card will be available for shipment around the middle of December. In fact, the changes made are so drastic we have licensed the name Lisa from Apple and will remarket the computer as the "Lisa Professional".

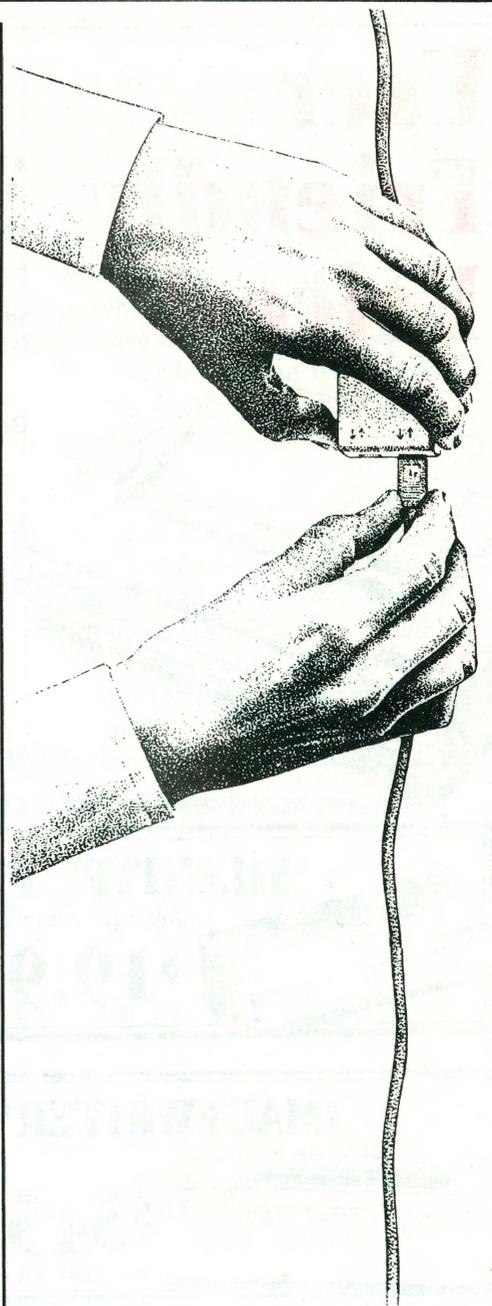
The main difference of the Lisa Pro from the rest of the Lisas and Mac XLs will be the new Sun Controller

Card. It will now allow you to handle up to 40Mb of internal hard disk storage. The single card will use a whole lot less power and will include a buffer to speed up the transfer of data and let the operator get on with business.

Keeping up with advancing needs, the new Sun Controller Card will also include a SCSI port, making a true tape backup a reality to Lisa owners. A special adapter will allow the board to work on original Lisa 2/0 and 2/10s.

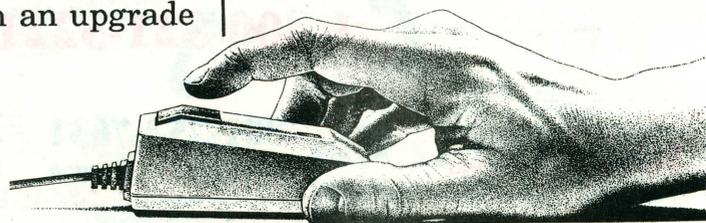
Upgrades will be available for existing owner's machines just after the first of the year. We will be trading complete cages and installation will be quite simple.

And, to let you in on further upgrades, we are also working on an upgrade

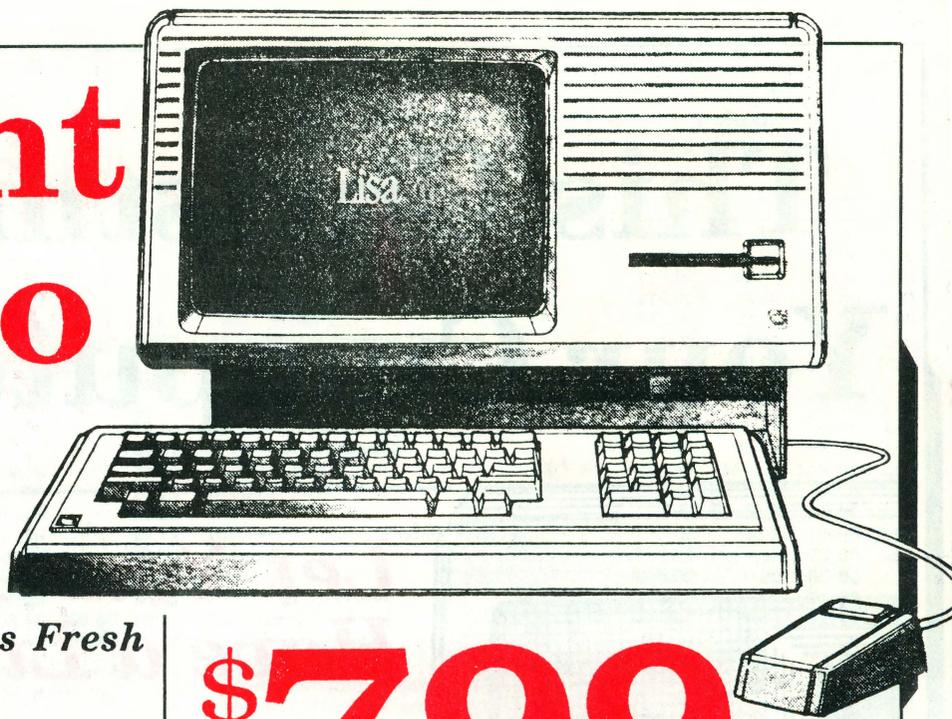


to MacWorks XL which will allow the use of an internal 800K drive and possibly even the use of HFS on the Lisa.

Look forward to January's Sun Times for firm announcements of these and other products as we keep the Lisa a valuable asset to your office or home. \_\_\_\_\_



# Brought Back to Life...



## Sun Remarketing Breathes Fresh Air into a Sleeping Beauty.

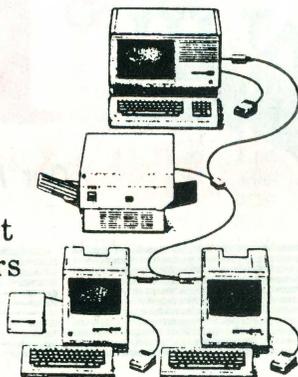


One of Apple's® most powerful business computers is making a comeback. We've been looking forward to adding the Lisa™ (Macintosh XL™) to our line of remarketed machines. The time has finally arrived. We're now officially established as a nationwide support center for the obsolete Macintosh XL and Lisa computer.

We've taken the opportunity a step farther than perhaps others would go and are giving full support to all Lisa owners. In fact, we have had engineered a new and greatly improved hard disk controller card to facilitate much faster access to a machine whose capabilities were far beyond the times upon her first introduction. With this and other additions to the original machine please welcome the "Lisa Professional"!

## Start Your Own Network

With the Lisa Professional you'll have a great beginning to a complete office network system. A built-in hard disk can be accessed easily and quickly by other Lisas or Macintoshes and can act as a controller to printers and other devices through a standard Appletalk™ hookup.



**\$799**  
AS  
LOW  
AS

At this price configured with 512K RAM,  
400 K Internal Drive, MacWorks XL.  
Reconditioned — Warranted

## Lots of Power and Features .

The Lisa Professional is based around one of Apple's most powerful business computers. We offer up to a full megabyte of RAM with an optional built-in 40 megabytes of hard disk storage capacity. With that, you also have a built-in 400K internal disk drive and larger screen. You can really spread out your spreadsheets on this Lisa!

And, hundreds of the leading Macintosh business software programs run on the Lisa Professional. Combine that with the increased power and memory, and it's capable of tackling the biggest business tasks.

The Lisa Professional is available in several configurations both new and reconditioned. Each comes with a complete 30 or 90 day warranty. We think you'll find the Lisa Professional a gracious alternative to current computers.

The **Lisa**™  
Professional

ORDERLINE -  
**1-800-821-3221**



**801-752-7631**  
Questions — Service



# This Christmas Buy Your Computer a Gift

*Let Your Apple ///  
Have a Little Fun!*

You know full well that your Apple /// has been a good boy all year long. And it's been keeping its eye trained on some good Apple II games. But, with regular emulation there just isn't enough memory for Zork.

Well, Merry Christmas! Sun Remarketing is offering a gift (the Titan /// plus IIe card) you can give your Apple /// this year and we've even reduced the cost to you by 50% off our already low price. That means, with a 16-pin IIe compatible joystick, (like our Comrex Deluxe for \$16.95) your Apple /// could become addicted to Flight Simulator and Lode Runner.

The /// plus IIe also includes two fast RAM disks to speed up your operation in SOS or ProDOS. And there's more too! It supports the clock, the ProFile and the Apple ///'s built-in serial port.

So, what are you waiting for? Pick up the phone and ask Santa (Sun) to ship you a Christmas present for your Apple /// today!

**SPECIAL LIMITED OFFER**

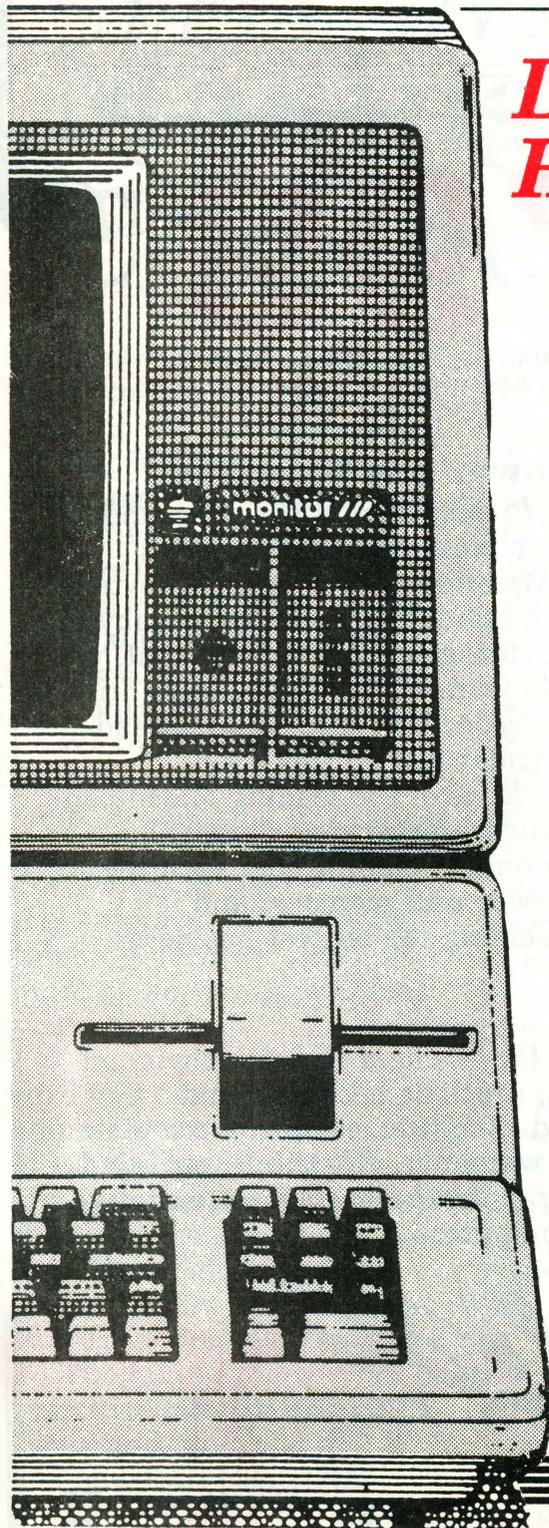
Sugg. List 499.00

**TITAN III**  
*plus IIe*

**\$199**

Our Reg. Low Price 399.00

**Titan**  
TECHNOLOGIES, INC.



# Sun - The Nation's Largest Support Center For the Apple ///.

Sun Data offers lower prices on all software and accessory items with the purchase of a computer.

ITEM	Price List 8B	SUGG LIST	OUR PRICE	WITH COMP	SHIP CHGS
<b>HARDWARE* APPLE /// &amp; II</b>					
Apple /// with monitor (128K)		1995.00	549.00		30.50
Apple /// without monitor (128K)			519.00		22.12
Apple /// with monitor (256K)		2195.00	599.00		30.50
Apple /// without monitor (256K)			549.00		22.12
Apple ///+ with monitor (256K)		2795.00	699.00		30.50
Apple ///+ without monitor (256K)			649.00		22.12
Apple ///+ w/monitor (Brand New)			999.00		30.50
Apple ///+ w/out monitor (Brand New)			949.00		22.12
Apple /// with monitor and 5 Mb ProFile		3890.00	999.00		45.90
Apple /// with monitor and Titan ///+Iie		2694.00	749.00		34.50
Apple II+, Disk II, Monitor ///		899.00	499.00		35.75
Monitor /// (Apple)		249.00	85.00	50.00	12.14
Monitor /// (Seconds, slight imperfections)			39.00	39.00	12.14

<b>DRIVES</b>					
Disk II			150.00	100.00	5.48
MicroSci Drive A-143 (new)			375.00	350.00	5.48
Disk /// (Apple)		435.00	190.00	150.00	5.48
Macintosh 400K external drive		395.00	79.00	79.00	5.48
Disk Adapter for ///+			20.00	20.00	1.24
ProFile 5 Mb Hard Disk		1695.00	695.00	595.00	15.49
ProFile Accessory Kit - new			99.00	99.00	3.90
ProFile Cable			24.00	24.00	3.90
Quark 10 Mb Hard Disk (II, /// or Mac) new		995.00	795.00	795.00	15.49
Quark 20 Mb Hard Disk (II, /// or Mac) new		1195.00	895.00	895.00	15.49

<b>ACCESSORIES</b>					
256K Memory Upgrade (Ex. Refund of 100.00)			300.00	300.00	5.00
Carry Case for the ///		129.00	59.00	49.00	5.40
Carry Case for the //c		89.00	19.95	19.95	5.24
Clock Kit - with instructions		50.00	30.00	25.00	2.00
Comrex Deluxe Joystick (new)		89.00	14.95	14.95	3.90
Comrex IIe Adapter for above		4.95	2.00	2.00	1.00
CPM Upgrade 2.21			25.00	25.00	3.90
Modem 300 (Apple - Hayes Compatible) new		225.00	89.00	89.00	3.90
Modem 1200 (Apple - Hayes Compatible) new		495.00	195.00	195.00	3.90
Modem Cable ///			29.00	25.00	2.00
Serial Card ///		139.00	79.00	65.00	3.90
Softcard /// (CP/M)		450.00	79.00	79.00	3.90
Titan ///+ Iie (80 col. emulation)		499.00	199.00	199.00	3.90
Titan ///+ II (64K)		299.00	79.00	59.00	3.90
Titan ///+ II Upgrade (128K w/RAM disk)		199.00	59.00	49.00	3.90
Video Interlace Kit - with instructions		75.00	50.00	50.00	2.00

<b>PRINTERS* FOR /// OR II</b>					
Apple Letter Quality Printer		2195.00	595.00	495.00	24.19
Apple DMP (Dot Matrix Printer)		495.00	199.00	199.00	17.13
Color Plotter (Apple) new		995.00	195.00	195.00	17.19
Fujitsu 80 cps Daisy Wheel Printer (new)		1895.00	999.00	995.00	54.19
ImageWriter (Apple)			345.00	345.00	17.13
ImageWriter Wide Carriage		595.00	445.00	445.00	22.56
SilenType Printer		295.00	19.95	19.95	6.93

<b>PRINTER ACCESSORIES FOR /// OR II</b>					
Fujitsu Tractor Feed		225.00	129.00	109.00	5.85
Fujitsu Dual Sheet Feeder		2125.00	799.00	769.00	15.65
ImageWriter Accessory Kit		50.00	35.00	35.00	3.90
LQP Tractor Feed		150.00	95.00	75.00	4.83
LQP Cut Sheet Feeder			199.00	199.00	15.70
LQP Manual			10.00	10.00	2.00
Modem Eliminator Cable		29.95	24.00	24.00	1.24
Parallel Interface Card II		195.00	75.00	59.00	3.90
Plotter Pens (set of 4 - 7mm paper)			7.50	7.50	1.00
Printwheels (Apple LQP)			4.90	4.90	1.00
Ribbon (Fujitsu Daisy 830)			8.99	8.99	1.00
Ribbon (Apple LQP)			7.50	7.50	1.00
Ribbon (Imagewriter or DMP)			7.50	7.50	1.00
Serial Card ///		139.00	79.00	65.00	3.90
Serial Printer Cable		34.95	24.00	19.95	1.24
SilenType Paper (per roll)		5.95	3.95	2.95	1.00
SilenType Interface II			15.00	15.00	3.90
Universal Parallel Interface Card /// (UPIC)		195.00	75.00	59.00	3.90
UPIC Cable			24.00	19.00	3.90

<b>SOFTWARE FOR APPLE ///</b>					
/// Easy Pieces		245.00	99.00	75.00	3.90
/// Easy Pieces Templates		89.00	49.00	49.00	3.90
Apple File		195.00	99.00	75.00	3.90
Apple Writer 2.0		275.00	75.00	50.00	3.90
Apple Writer 1.1		275.00	29.00	29.00	3.90
Apple Writer Product Training		35.00	19.00	19.00	3.90
Backup ///		50.00	30.00	30.00	3.90
<b>BPI ACCOUNTING SERIES</b>					
Accounts Payable		495.00	89.00	65.00	3.90
Accounts Receivable		495.00	89.00	65.00	3.90
General Accounting		495.00	89.00	65.00	3.90
Job Costing		495.00	189.00	159.00	3.90
Business Basic		125.00	75.00	50.00	3.90
Business Graphics		175.00	75.00	50.00	3.90
Business Graphics Product Training		35.00	19.00	19.00	3.90
Catalyst		195.00	99.00	75.00	3.90
Cobol		495.00	89.00	65.00	3.90
CP/M 2.21 Upgrade			25.00	25.00	3.90
EasyTerm		80.00	75.00	50.00	3.90
Emulation Diskette II for ///			10.00	10.00	3.90
Graph 'n Calc		129.95	75.00	50.00	3.90
Habadex Program Selector		150.00	75.00	50.00	3.90
Haba Merge (/// EZ Pieces compatible)			49.00	49.00	3.90
IMP Communications (CP/M)			25.00	25.00	3.90
Infonet		200.00	150.00	125.00	3.90
Keystroke /// (Report Generator)			50.00	45.00	3.90
Keystroke /// (Data Base)			150.00	135.00	3.90
Mail List Manager		95.00	75.00	50.00	3.90
Master Driver Diskette			15.00	15.00	3.90
MicroCourier		95.00	75.00	50.00	3.90
Multiplan		295.00	135.00	99.00	3.90
NPL /// (Non Programers Language)		150.00	75.00	50.00	3.90
Pascal		250.00	65.00	49.00	3.90
Pascal Update 1.2			35.00	30.00	3.90
Pascal Program Manual Vol. 1 and 2			35.00	30.00	3.90
Pascal Program Prep Tool Manual			19.00	19.00	3.90
Pascal Filer and Editor Manual			19.00	19.00	3.90
PFS:File		125.00	89.00	65.00	3.90
PFS: Report		125.00	89.00	65.00	3.90
QuickFile		100.00	75.00	50.00	3.90
RPS		195.00	89.00	65.00	3.90
Script ///		125.00	75.00	50.00	3.90
Senior Analyst		195.00	75.00	50.00	3.90
<b>STATE OF THE ART ACCOUNTING</b>					
Special Bundle (G/L, A/R, A/P)		1485.00	195.00	175.00	7.65
General Ledger		495.00	89.00	65.00	3.90
Accounts Receivable		495.00	89.00	65.00	3.90
Accounts Payable		495.00	89.00	65.00	3.90
Budget and Financial Reporting		495.00	99.00	79.00	3.90
Inventory Control		495.00	99.00	79.00	3.90
Sales Invoicing		495.00	99.00	79.00	3.90
Payroll		495.00	99.00	79.00	3.90
Hard Disk Mapper (per program)			25.00	20.00	3.90
Backup Program Diskettes			25.00	20.00	3.90
System Software and Manuals ///			39.00	35.00	3.90
System Utilities Product Training		35.00	19.00	19.00	3.90
System Utilities Program 1.2			10.00	10.00	3.90
Three EZ Pieces		245.00	99.00	75.00	3.90
Three EZ Pieces Templates		89.00	49.00	49.00	3.90
Versaform		295.00	99.00	75.00	3.90
VisiCalc		195.00	75.00	50.00	3.90
VisiCalc Product Training		35.00	19.00	19.00	3.90
Word Juggler/Lexicheck		195.00	99.00	75.00	3.90

<b>MANUALS/TRAINING FOR APPLE ///</b>					
AppleWriter Product Training		35.00	19.00	19.00	3.90
Business Graphics Product Training		35.00	19.00	19.00	3.90
Device Drivers Writers Guide		25.00	19.00	19.00	3.90
Dot Matrix Printer Manual (Apple)			19.00	19.00	3.90
Driver Installation Sheet			3.00	3.00	1.00
Guide to Apple /// (McGraw-Hill)		19.95	14.95	14.95	3.90
Guide to Apple /// Software			3.00	3.00	2.00
LQP Manual (Apple)			10.00	10.00	3.90
Pascal Program Manual (Vol 1 and 2)			35.00	30.00	3.90
Pascal Program Prep. Tool Manual			19.00	19.00	3.90
Pascal Filer & Editor Manual			19.00	19.00	3.90
ProFile Manual			20.00	10.00	3.90
SilenType Printer Manual			10.00	10.00	3.90
SOS Reference Manual		50.00	39.00	35.00	3.90
System Software and Manuals		59.00	39.00	35.00	3.90
System Utilities Product Training		35.00	19.00	19.00	3.90
VisiCalc Product Training		35.00	19.00	19.00	3.90

Continued Next Page

# Lisa Professional - Price List

ITEM	Price List 8B	SUGG LIST	OUR PRICE	WITH SHIP COMP
<b>LISA PROFESSIONAL *- RECONDITIONED</b>				
512K/400K Internal Drive		799.00	65.00	
1Mb/400K Internal Drive		995.00	65.00	
1Mb/5 Mb ProFile Hard Disk		1495.00	80.00	
1Mb/10Mb Internal Hard Disk		1595.00	80.00	
1Mb/20Mb Internal Hard Disk		1795.00	80.00	
Memory Upgrade (additional 512K)		300.00	200.00	3.90

<b>LISA PROFESSIONAL - NEW</b>				
512K/400K Internal Drive		849.00	65.00	
1Mb/400K Internal Drive		1049.00	65.00	
1Mb/5 Mb ProFile Hard Disk		1595.00	80.00	
1Mb/10Mb Internal Hard Disk		1795.00	80.00	
1Mb/20Mb Internal Hard Disk		1995.00	80.00	
Memory Upgrade (additional 512K)		300.00	200.00	3.90

<b>PRINTERS * FOR LISA PROFESSIONAL</b>				
Apple Color Plotter (new)	999.00	195.00	195.00	17.19
Apple DMP (Dot Matrix Printer)	495.00	199.00	199.00	17.13
Apple Letter Quality Printer	2195.00	595.00	495.00	24.19
Fujitsu Daisy 830 - 80 cps LQP (new)	1895.00	999.00	949.00	54.19
ImageWriter (Apple) Printer	595.00	345.00	345.00	17.13
ImageWriter Wide Carriage	695.00	445.00	445.00	22.56
LaserPrinter 300 dpi (PostScript)	5995.00	4695.00	4495.00	80.00

\*All equipment reconditioned and do not include manuals unless otherwise noted.

<b>PRINTER ACCESSORIES FOR LISA PROFESSIONAL</b>				
Apple LQP Manual		10.00	10.00	2.00
Cut Sheet Feeder (Apple LQP)		199.00	199.00	15.70
Dual Sheet Feeder - Fujitsu	2125.00	799.00	769.00	15.65
ImageWriter Accessory Kit	50.00	35.00	35.00	3.90
Mac Serial Cable		24.00	19.00	3.90
Parallel Interface Card - Lisa		149.00	149.00	5.00
Plotter Pens (set of 4 - 7mm, paper)		7.50	7.50	2.00
Ribbon - Apple LQP		7.50	7.50	1.00
Ribbon (nylon) - Fujitsu		8.99	8.99	1.00
Ribbon - ImageWriter or DMP	7.50	7.50	7.50	1.00
Tractor Feed (Apple LQP)	150.00	95.00	75.00	4.83
Tractor Feed - Fujitsu	225.00	129.00	109.00	5.85

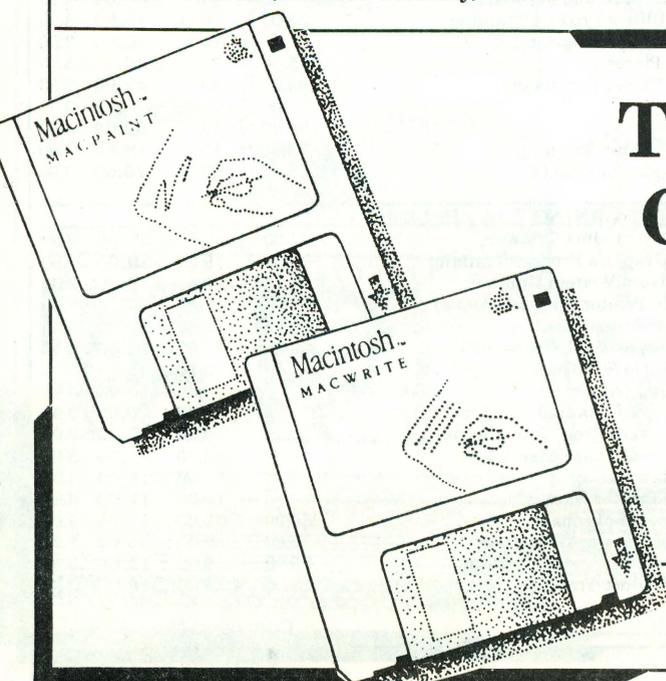
<b>ACCESSORIES/SOFTWARE FOR LISA PROFESSIONAL</b>				
AST Memory Expansion Kit (1 1/2 Mb)		699.00	649.00	3.90
BPI Accounting Series (per module)	495.00	189.00	159.00	3.90
Lisa Office System Software 7/7		295.00	295.00	19.80
Lisa Users Guide		19.95	19.95	3.90
Macintosh 400K external drive	395.00	79.00	79.00	5.48
MacWorks XL (3.0) with manuals		125.00	125.00	3.90
MacWrite (2.20)/MacPaint (1.3)	250.00	99.00	99.00	3.90
Modem 300 (Apple - Hayes Compatible) new	225.00	89.00	89.00	5.24
Modem 1200 (Apple - Hayes Compatible) new	495.00	195.00	195.00	5.24
Modem Cable		29.00	25.00	2.00
Screen Modification Kit		79.00	69.00	3.90

## Lisa Service/Parts

## Apple /// Service/Parts

EXCHANGE PARTS/SERVICE	PRICE	EXCHG REFUND
Built-in Disk Drive (400K)	249.00	100.00
CPU Card	245.00	100.00
Hard Disk Assembly (Widget)	500.00	100.00
I/O Board	295.00	100.00
Keyboard	225.00	100.00
Lisa Screen Modification Kit	79.00	
Memory Board (512K)	300.00	100.00
Motherboard	245.00	100.00
Mouse	90.00	30.00
Parallel Interface Card	149.00	20.00
Power Supply	245.00	100.00
ProFile Cable	24.00	
ProFile Connector Kit	99.00	
Sun Care - Lisa 2/0 (extended warranty)	264.00	
Sun Care - Lisa 2/5 (extended warranty)	456.00	
Sun Care - Lisa 2/10 (extended warranty)	360.00	
Sun Care - ProFile (extended warranty)	216.00	

EXCHANGE PARTS/SERVICE FOR ///	PRICE	EXCHG REFUND
256K Upgrade (from 128K)	300.00	100.00
Built-in Disk Drive	150.00	50.00
Clock Chip Kit	30.00	
Disk ///	150.00	50.00
Disk Drive Cleaned, Aligned and Adjusted	30.00	
Keyboard	150.00	50.00
Keyboard Upgrade (to ///+)	99.00	
Motherboard	300.00	100.00
Memory Board	200.00	100.00
Power Supply	150.00	50.00
ProFile Factory Format	70.00	
ProFile Card Only	49.00	10.00
Serial Card Only	49.00	10.00
UPIC Card Only	49.00	10.00
Video Interlace Kit	50.00	
Sun Care - Apple /// (extended warranty)	249.00	
Sun Care - ProFile (extended warranty)	216.00	



# Two Great Programs, One Low, Low Price!

## MacWrite/MacPaint

BUY BOTH FOR ONLY

# \$ 99

MacWrite ver. 2.20 - MacPaint ver. 1.3

ORDERLINE  
**1-800-821-3221**

**801-752-7631**  
Questions - Service



**ORDERLINE**  
**1-800-821-3221**

**For Orders Only**

**CUSTOMER SERVICE**  
**801-752-7631**

**Questions—Service**



P.O. BOX 4059 Logan, UT 84321

- Check    Visa    Master Charge    American Express  
 C.O.D (cashier's check only)    Bank Transfer (phone first)

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ST. \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ DATE \_\_\_\_\_

ACCT. NO. \_\_\_\_\_ EXP. DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

QUANTITY	DESCRIPTION	EACH	TOTAL	SHIPPING
1				
2				
3				
4				
5				
6				
7				
8				
<b>INDIVIDUAL TOTALS</b>				
<b>GRAND TOTAL</b>				

Utah Residents Add State Sales Tax

Quantity Discounts Available

Apple and the Apple Logo are registered trademarks of Apple Computer, Inc.

**ORDERING GUIDELINES**

**PHONE ORDERS:** We maintain a toll-free line for the convenience of customers placing orders only. Please call **1-800-821-3221**.

**QUESTIONS OR SERVICE:** For questions, order inquiries or service please call our Customer Service Line at **1-801-752-7631**. For Return Authorizations please call **801-752-7631**

**TERMS:** Prepaid, C.O.D., Credit Card. Purchase Orders accepted only from previously approved and rated companies, municipalities and schools, F.O.B. Logan, Utah.

**C.O.D.:** Acceptable by telephone or mail. Payment from customer must be by cash money order, cashiers check or company check. We cannot accept personal checks as payment on C.O.D. parcels.

**CREDIT CARDS:** MasterCard, VISA and American Express are accepted by mail or telephone. Complete order form with card number, name, signature and expiration date. If phoning order please have information accessible.

**DELIVERY:** Orders are normally shipped within 48 hours after receipt of customer's order. Same day shipment requests are subject to an additional service charge. Please allow 7 to 10 working days after your order is placed for normal delivery.

**SHIPPING:** Our normal shipping method is via UPS. Priority Service Shipments (air freight, overnight delivery, Blue Label, etc) are available, upon request, to most areas. Priority Service requests are subject to additional charges. Please contact us for further information.

**HOURS:** Our phone lines are manned 7:30 am to 5:30 pm MST Monday through Friday.

**PRICES:** Prices are subject to change without prior notice.

**AVAILABILITY:** All items are subject to availability and previous sale.

**MINIMUM ORDER:** For service parts we maintain a minimum order limit of \$15.00. For software orders that limit is \$10.00. Any amount under that will automatically be charged the minimum amount plus shipping charges.

**SALES TAX:** Sales tax must be charged to all orders delivered in Utah.

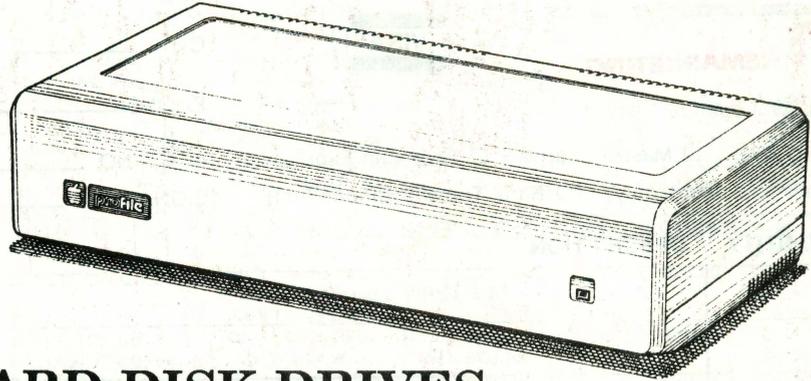
**RETURNED CHECKS:** All checks returned for any reason will be subject to a \$10.00 fee.

**RETURNED MATERIAL:** All returned merchandise must be accompanied by an authorization number. Our Return Merchandise Authorization Department can be reached by calling **801-752-7631** When calling please have a copy of your invoice/packing list available for necessary information. A Return Form accompanies each order. The customer is responsible for the cost of shipping the product to Sun will only pay the return of exchanged or warranted items. We will not accept C.O.D. returns.

**DEFECTIVE MATERIAL-** Claims must be made within 30 days of receipt.

**INCORRECT MATERIAL-** Claims must be made within 10 days of receipt.

# The High Price of Storage Just Went Down...



## HARD DISK DRIVES

• Apple II • Apple III • Macintosh

**Quark 10Mb** Reg. \$995

**\$795**

Works on All Apples

**Quark 20Mb** Reg \$1195

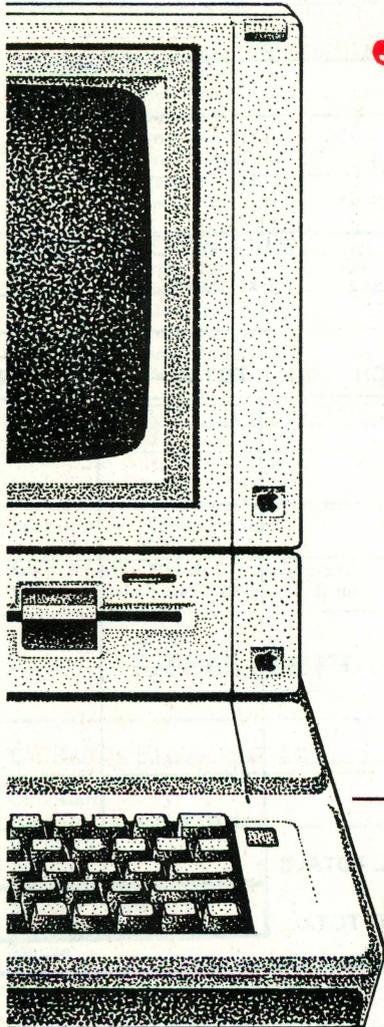
**\$895**

Works on All Apples

**ProFile 5Mb** Reg \$695

**\$595**

Works on Apple II & III



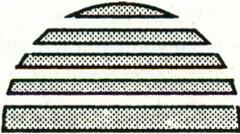
ORDERLINE -  
**1-800-821-3221**

ProFiles are reconditioned -  
Each comes with a 30 day warranty.

**Quark**<sup>TM</sup>  
PERIPHERALS, INC.

A Quark Company

For people who take computers seriously.

**Sun**  
  
**Remarketing**  
P.O. Box 4059 Logan, UT 84321

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Address Correction Requested