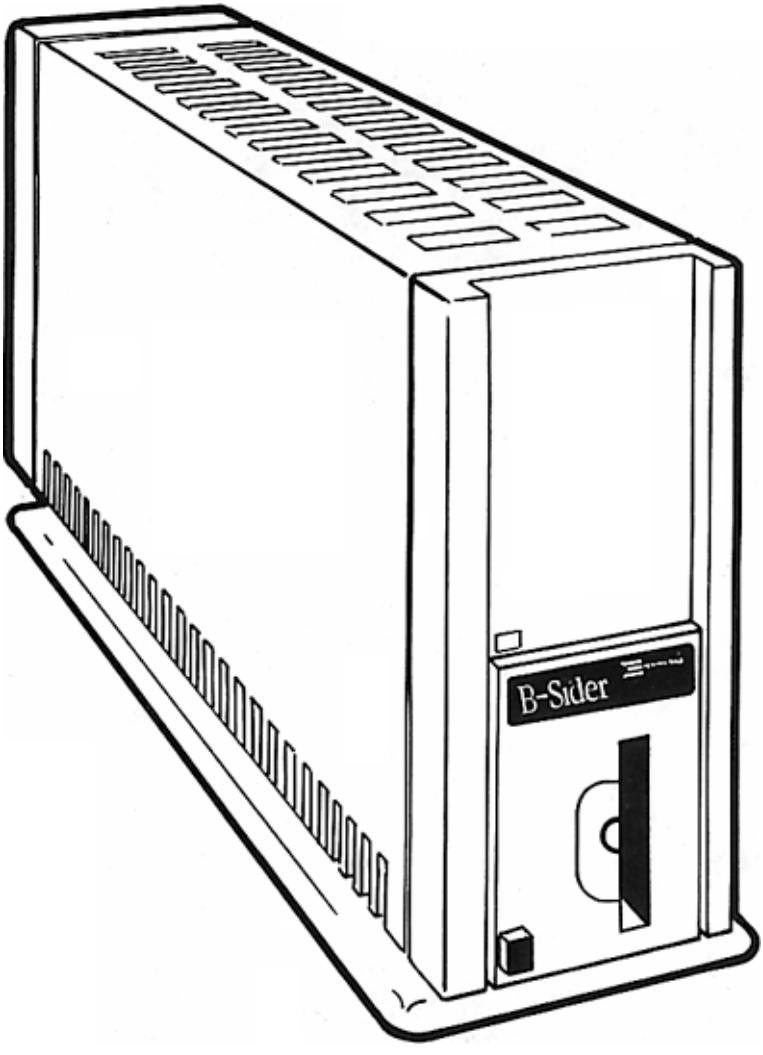
FIRST CLASS PERIPHERALS
B-SIDER STREAMING TAPE SUBSYSTEM

* * * *

USER'S GUIDE



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INTRODUCTION

This guide accompanies the First Class Peripherals streaming tape subsystem, B-Sider. It provides concise instructions that will help you install The B-Sider on your Apple computer and operate Siderware utilities.

B-Sider Overview

The B-Sider is designed for use with the Apple computer in conjunctIon with Sider hard disk subsystem product line. It expands the ease of use and the flexibility of your Apple computer.

To use the B-Sider, you must have previously purchased a Sider. The B-Sider is not recommended for nor supported by, First Class on any hard disk other than those sold by First Class. B-Sider has been especially designed not to require any additional expansion slots. It shares the same host adapter and slot as the Sider.

Unpacking the B-sider

Before setting up our B-Sider tape subsystem, take a moment to inspect the shipping carton and it's contents. You'll want to make sure that all the parts you need to install the subsystem are in the carton and in good condition.

The following items should in the accessories box from which you took this guide

* The input/output (I/O) cable.
* The power cord.
* Two data cassettes
* Data cassette label
* Cleaning Starter Kit

Select a solid, flat surface on which to set the subsystem, keeping, in mind that it weighs 10 pounds. Now lift the B-Sider from the carton and place it on the flat surface.

Be sure to save the packing materials in case you need to move the subsystem or ship it to First Class Peripherals for service.

Carefully look at the subsystem and all of its part checking them for damage. If anything is missing or has been damaged in transit, call your First Class Peripherals customer service representative on the toll-free hotline — (800)538-1307.

When you've examined all the parts and found them to be satisfactory, return them to the accessories boy. Now you're ready to install the B-Sider.

NOTES:

HARDWARE INSTALLATION

To install your new tape subsystem, you'll need the following:

* A 110 volt. electrical outlet. Although a standard three-wire outlet will suffice, local electrical power conditions may make it desirable to connect your Apple computer and lts peripheral devices to surge suppressor power strip, which you can obtain at computer stores and many hardware stores,

* A solid, flat surface flea your current. Sider subsystem. The B-Sider's I/O Cable is 12 inches long.

* A reasonably controlled operating environment. The B-Sider operates trouble-free in temperatures ranging from 10 to 45 degrees centigrade (50 to 113 degrees Fahrenheit): and relative humidity of 20 to 80 percent. However if the subsystem isn't being used, it will withstand temperatures ranging from 4 to 50 degrees centigrade (39 to 122 degrees Fahrenheit).

* **Proper ventilation for your B-Sider, as depicted in figure 1. The B-Sider doesn't have a cooling fan; lt maintains its operating temperature by convection cooling. Allow a minimum of two Inches on each side of the subsystem, and never place anything on top of it. Improper ventilation can cause damage to the subsystem, rendering it inoperative**

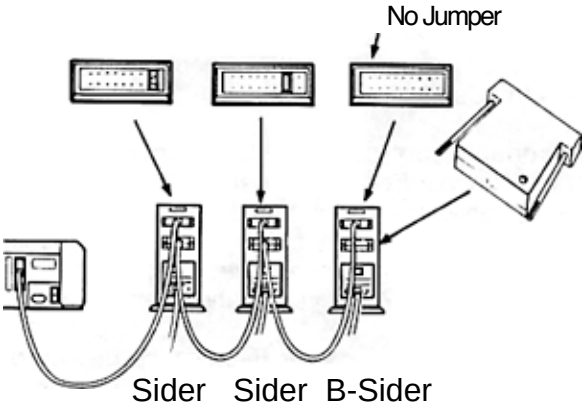
Now you. are ready to connect the B-Sider to you already existing Sider and/or Sider][. The B-Sider uses a technique called "daisy-chaining." Daisy-chaining allows the expansion of your apple without requiring any additional expansion slots.

Place the B-Sider "beside" your current Sider hard disk subsystem. Take special note that a minimum of two inches between the two units is needed for ventilation.

Now retrieve the I/O cable and the power cord for the accessory box.

Remove the terminator plug from the rear of the Sider.

Attach one end of the B-Siders I/O cable to the connector from which you previously removed the terminator. Now the other to the Upper 37 pin connector on the B-Sider itself. Hand-tighten the thumbscrews, Install the terminator plug on the lower 37 pin connector on the rear of the B-Sider. Figure 1 depicts the correct placement of the I/O cable.



Daisy-chaining
Figure 1

Make sure that the ON/OFF switch above the plug in the "OFF" position ("-" is ON and “O” is OFF) then attach the power cord to the three-pronged plug on the back of the subsystem.

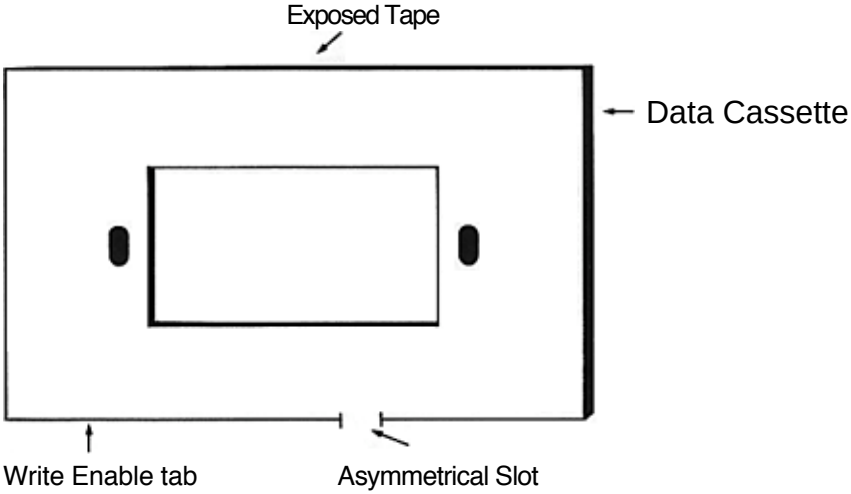
Now you’ve completed the hardware installation sequence.

B-SIDER CARE & FEEDING

Unlike previous First Glass Peripherals products the B-Sider requires periodical maintenance. Since the medium of data storage is removable, contaminants are introduced in the B-Sider mechanics. Periodic cleaning and proper cassette handling will greatly reduce the chances of loosing data on your valuable backups.

Cassettes

Data cassettes by nature have two sides; Side A and Side B which can be distinguished by an asymmetrical slot. Figure 2 depicts the details. This slot prevents the cassette from being placed into the B-Sider upside down.



Cassette Details
Figure 2

Located on either side of the slot are two write enable tabs. Only the write protect tab furthest from the Slot is used. See Figure 2 for details. When this tab is removed, thus creating a hole, data can not be written to the cassette.

Cassette— Do's and Don'ts

Below is a list of seven (7) item which should be followed when handlng the cassettes:

1. When a cassette is not nose, you, should place the cassette in its. protective plastic case. This will lesson the amount of dust, lint, etc. entering the cassette.

2. Always rewind the cassette, before removing it from the B-Sider. By doing so,the clear leader section will be exposed. If the cassette has not been rewound, the magnetic surface will be exposed Avoid touching this surface with your fingers or any other object, due to the fact that the magnetic surface can be damaged causing possible data errors etc.

3. Do not use or store these data cassettes in a dusty environment or in ambient environment conditions outside the ranges below:

   10 to 45 degrees Centigrade (operating)
   6 to 50 degrees Centigrade (storage) .
   20 to 80 percent relative humidity.

   If a tape has been stored in an environment outside this range, allow the tape 8 hours in the specified operable range prior to usage.

4. These data cassettes contain your work, your program and maybe your business, i.e. accounts payable, general ledger, payroll, etc. So, do no stress the cassette case by stacking heavy objects on top of them or flexing the plastic cassette. A!so transporting the cassettes, store them in a place where they will not be exposed to strong vibration sun-light or impact.

5. Do not store or place cassettes near strong magnetic fields, i.e. motors, transformers, magnetics, etc. The stored data could be destroyed.

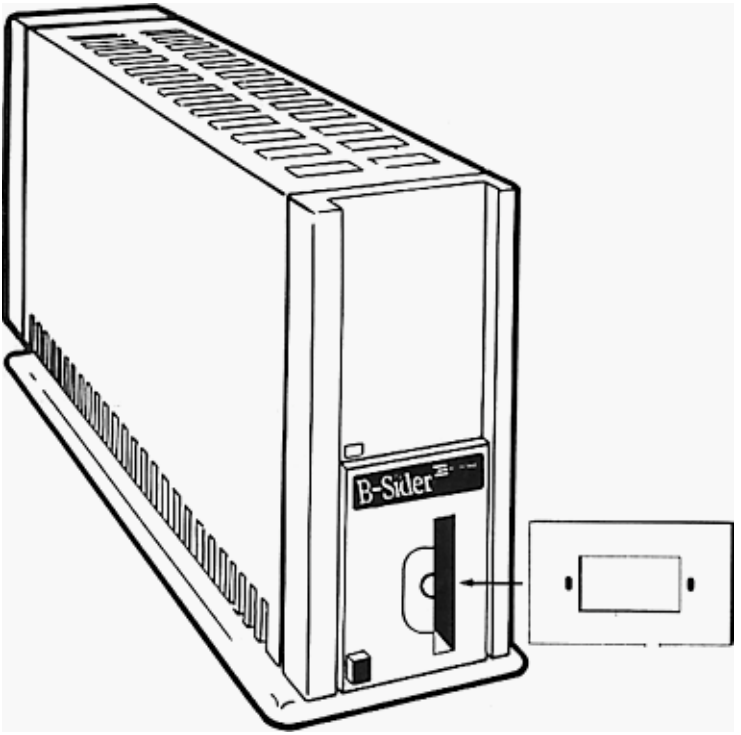
6. Do not cut, mar or sp!ice a tape. This will reduce the cassette's operating reliability.

7. Prewind. When using a cassette which has been stored a while, or one that has experienced environmental changes, or even new tape, you should prewind the cassette prior to usage. This Operation will promote stable tape movement.

Following these recommendations will aid in the proper functionality of the B-Side,

INSERTING CASSETTES

Hold cassette such that the clear leader is up and the asymmetrical slot is positioned to your right. Insert the cassette into the B-Sider (as shown below). Hold the cassette straight and level and push it into the vertical opening in the front of the B-Sider. When the entire cassette is inserted the mechanism will pull the cassette into the correct posit



Tape Mounting
Figure 3

REMOVING CASSETTES

To remove a data cassette, you should first rewind the cassette, to insure that the magnetic strip is NOT exposed. Then press EJECT button firmly, and the cassette will be ejected from the B-Sider. First Class Peripherals recommends that you remove the write enable tab from the cassette when you store Ito insure that the data will not be accidentally written over. See figure 1 for location of write enable tab.

Besides the list of Dos and Don't described early in this section, there are a few addition precautions which can increase the data integrity of your backup.

Do not press the Eject button while the B-Sider is moving the tape.

Do not turn the power off the B-Sider while the tape is moving

Finally, always store your data cassettes in their plastic containers.

If these precautions are not followed, the tape could become. slack, increasing the chances that the tape will be damaged during mounting and/or dismounting. Tape slack does occur, tighten the tape by inserting a pencil or similar object into the hub and rotate the hub gently to remove that slack

Cleaning the B-Sider

Periodic Cleaning of the B-Sider mechanism wilt help prevent unreliable read/write operation. The B-Sider cleaning cycle will differ from one environment to another. Under normal use, the B-Sider should be cleaned once a month or 50 backup and restore sessions which ever. come first Even with periodic cleaning, some small amount of dirt and. dust may accumulate on the head, causing data errors occurring suddenly during a read/write operation. If this happens, eject the cassette, clean the head, and try the operation again.

* Power the B-Sider off.
* Insert the cleaning cassette Into the B-Sider
* Dip a cleaning stick into the cleaning solution.
* Insert the cleaning stick into he cleaning Cassette such that the blue side of the cleaning stick is up. Gently push the stick to its fullest extent —approx. 3 inches
* Remove the cleaning stick.
* Repeat this process — with the blue side up — ten times.
* Now, turn the cleaning stick over— white side up— and insert it into the clean cassette. In and out, 10 more times.
* Eject the cassette, and let the heads dry about 1 minute before loading a data cassette,

HAVING TROUBLE ???

First, you should try to write down the steps which lead you to this section. Then try to duplicate it. Try to log all actions which you took. Examine the following possibilities.

Step 1

* Is the i/O cable securely fastened, to the back of the B-Sider? Thumbscrews should be hand tight.

* Is the power cord connected to both the B-Sider and a 110-volt electrical outlet?

* Is the B-Sider power on?

* Do your day to day activities with the Sider/Sider][work properly? Boot, load programs

* Did you add/move any cards in you computer? If so check to make sure that the host adapter is seated correctly, and that the 50 pin cable is also seated correctly.

Most of the above conditions can be resolved by getting power to the B-Sider and/or by securely connecting the I/O cable between your Sider/Sider][to the rear of the B-Sider,

Step 2

Did the Backup/Restore program load

* Is a cassette loaded? If so, eject it, check cassette for physical damage, then reload it.

* Will the tape REWIND?

* Have you tried a different cassette?

Step 3

Once you have completed this check list, attempted to duplicate the or condition, then call your customer service representative

NOTES:

TECHNICAL INFORMATION

The following sections describe First Class Peripherals compliance with the federal Communication Commission (FCC): its limited warranty its warranty repair procedures; an technical specifications for the Sider.

FCC Compliance

First Class Peripherals provides a shielded interface cable and host adapter card that comply with FCC Class B computing regulations. USE OF A NON-SHIELDED CABLE may result in RF radiation exceeding FCC Class B limits.

It is possible, when not following these explicit instructions, to install the Sider so that it isn't in compliance with FCC Class B computing regulations.

First C!ass Peripherals takes no responsibility for such configurations. liability for such actions rest solely with the users.

Information to Users

This equipment generates and uses radio frequency energy and if not installed nd used properly — that is, in strict accordance with the manufacturers instructions — may cause interference to radio and television receptions.

It has been type-tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Instructions

If this equipment does cause interference to radio or television reception — which can be determined by turning the equipment on and off and noting the effect of the power surgeon The radio or television — you are encouraged to try to correct the interference by one or more of the following measures:

* Reorient the receiving
* Move the computer away from the receiver.
* Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.

If necessary, you should consult with First Class peripherals or an experienced radio/television technician for additional suggestions. You may find the following booklet prepared by the FCC helpful: “How to Identify and Resolve radio-TV Interference Problems” This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20403, Stock No. 004-000-00345.4.

LIMITED WARRANTY

First Class Peripherals warrants all of its products, including spare parts sold by First Class Peripherals, to be free from defects in material and Workmanship for a period of one year from the date of delivery

This warranty is made to original purchasers only, and only original purchasers may make any claim under the warranty. No Other party shall have any rights under this warranty. The sole remedy for any breach of this warranty shall be the repair or replacement of the defective product, as described herein.

First C!ass Peripherals disclaims all other representations and warranties including but not limited to, any implied warranty of merchantability or fitness for a particular purpose. First Class Peripherals shall not be liable for any special, indirect, incidental or consequential damages, lost profits, costs or expenses, except as set forth in this policy, which may be modified or amended only by written contract.

In-Warranty Repair

First Class Peripherals will repair at its factory or repair center, any product that within the warranty period is returned to First Class Peripherals and, found to be defective in proper usage.

Warranty action is initiated by customer notification to First Class Peripherals of a product failure within the warranty period. The customer must notify a customer service representative for in-warranty repairs. First Class Peripherals will honor the warranty if notification of product failure is provided within the one-year warranty period.

The original customer must obtain a Returned. Goods Authorization (RGA) from First Class Peripherals and return the defective product to the designated factory or repair center. One-way transportation charges are at the customer's expense. First Class Peripherals will return repaired or replaced product by UPS Ground service at the expense of First Class Peripherals.

First Class Peripherals reserves the right to reject any warranty claim on any products that have been the subject of abuse, misuse, unauthorized repair, alteration, accident, improper return handling or causes external to the product but not limited to; improper power application, improper environmental exposure or other improper use of the product.

First Class Peripherals, at its option, may replace the returned product With a new or refurbished unit of the same type and model as defined by the applicable specifications or published data sheet.

First Class Peripherals includes in its Limited Warranty policy, provisions for updating in accordance with any field change order which First Class Peripherals determines is mandatory for reasons of product safety. All other field changes, revisions or updates not deemed mandatory by First Class Peripherals may be implemented at the discretion of First Class Peripherals or as required by contract.

Out-of-Warranty Repair

First Class Peripherals will provide repair or replacement services for all products manufactured by or for First Class Peripherals and sold by First Class Peripherals far a reasonable active product support period extending beyond last date of standard manufacture and sale. This period will normally be for a term three years from First Class Peripherals standard product list, but such period may be decreased Class Peripherals sole option.

Out-of-Warranty products and customer-related damage of in-warranty products will be repaired replaced in accordance with. First. Class. Peripherals then-current active product repair price schedule. The customer is obligated for freight and handling charges both ways.

Below are the prices for Out-of-Warranty product manufactured or sold by First C!ass Peripherals. The prices are effective March 1, 1986 and are subject to change without notice. All price schedules in Revision A (November 84) and Revision B (September 85) of the Sider Use Guide are void as of March 1, 1986

Sider Sider][B-Sider
250.00 plus 15.00
Shipping Handling & Processing Charges.
Our flat rate includes all parts and labor.

Repair Warranty

First Class Peripherals warrants any product repaired in its factory or repair center to be free from defects in material and workmanship for a period of Three months from the date of return delivery or the end of the original warranty period, whichever is greater.

Warranty Registration

Please take a moment to fill out the Warranty Registration card at the end of this manual, and mail it to the following address:

First Class Peripherals
3579 HIghway 50 East
Carson City, Nevada 89701

Attn: Customer Service

B-SIDER SPECIFICATIONS

This section contains specifications for the B-Sider, including dimensions, subsystem requirements and tape characteristics.

Dimensions and Requirements

Following are the physical dimensions and power requirements of the B-Sider.

Height	= 7.5 inches
Width	= 3.4 inches
Depth	= 16.0 inches
Weight	= 10.0 pounds
Source	= 100-126 volts (factory configured)
Line Frequency	= 50/60 herd (x/- 2%)
Power Consump.	= 30 watts

Tape Cassette Sources

Below is a list of suitable cassette tapes which can be used in the B-Sider.

Maxcell CS-500
Maxcell CS-600—Sider][Requirements
Teac CT-500

Subsystem Characteristics

The following section provides additional specifications for the B-Sider streaming tape subsystem.

Recording Method:	GCR
Recording format:	Single track, serpentine mode
Recording Density:	8,000 BPI
Formatted Capacity:	20.7 Mbytes
Interface:	SCSI
Tracks:	4.
Tape Speed:	90 ips
Data Transfer Rate:	863. Kbytes/sec.
Repositioning Rate:	1.5 sec.
LSV:	+/- 4%
ISV:	+/- 4%
Errorr Rate:	Soft Error- 10 eighth HardError- 10 tenth
MTBF:	8000 P.O.H.
MTTR:	0.5 hour
Tape Drive System:	DC motor direct reel drive system
Temperature:	Operating 10-40 deg. C Norioperating -25-60 deg. C
Relative Humidity:	Operating 20-80% (noncondensing) Nonoperating 10-90% (noncondensing)
Vibration:	Operating 0.2G (5-50Hz) Nonoperating 26 (5-50HZ)
Shock:	Operating 5G (10 msec or less) Nonoperating 40G (10 msec or ess)

GLOSSARY

Block—referring to the 'chunk' size of data which is passed to/from the tape subsystem — 512 bytes.

Byte— the basic unit of information within the computers memory, comprising eight bits and any value from 0 to 255. Sometimes called a character.

BPI — bits per inch.

Cassette —the medium which the B-Sider uses to store data Sometimes called a tape Sam physical size as ordinary auto cassette, BUT the media is quite different.

Convection — the ability to maintain adequate ambient Cooling temperature based on the raising of warm air causing cooler air to be pulled into the unit.

Daisy-Chaining — multiple devises sharing the same host adapter. Maximum of two Siders and one B-Sider on this bus.

GCR — Group-coded Recording.

Host Adapter — the means which external devices — Siders — can be attached to your computer.

Image — The total set of tracks on the Sider. Meaning boot tracks, all partitions and spares (if used)

ISV — Instantaneous Speed Variation.

Mbytes — short for Megabytes — 1,048,576 bytes.

MTBF — mean time between failures.

MTTR — mean time to repair

Partitioning— is an area on the Sider which was defined by the user for a particular need, i.e. operating system.

P.O.H. — power on hours

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NOTES:

WE'RE LISTENING ...

At Firs lass Peripherals we listen when you tell us what features you want in your computer products:

* **MORE STORAGE MEMORY.** The Sider provides you with 10 Megabytes of added storage memory while the Sider][delivers 20 Megabytes.

* **TAPE BACKUP SYSTEM.** The 8-Sider is designed to efficiently backup your Sider hard disk — and offers several different backup formats.

* **AFFORDABLE PRICES.** The Siders re the best-preforming, lowest-priced hard disk drive systems and tape backup subsystems on the market today.

* **OPERATING SYSTEM SUPPORT.** The Siders are designed to support the four primary operating systems in the Apple environment

* **TECHNICAL SUPPORT.** Your Sider gives your access to to toll-free 800-telephone number hotline and trained technical support staff.

* **DEFECT-FREE PRODUCTS.** Your Sider is manufactured by a first class manufacturer — XEBEC whose "Xero-Defect" policy assures you that your Sider will work the first time and for years to come.

* **FREE-TRIAL PERIOD.** Your Sider comes With a 15-day free-trial period — a first in the industry.

* **A REASONABLE WARRANTY.** Your Side is backed by the best warranty in industry — one full year.

So when FIRST CLASS PERIPHERALS says were listening, we are. Over the years, your suggestions have helped design one of the most respected product lines in the marketplace — The SIDER line

SIDER WARRANTY CARD

Name: _____

Address: _____

City _____ State _____ Zip _____

Phone: _____ (Days) _____ (Home)

Manufacturer's Serial. Number: _____

☐ Sider ☐ Sider][☐ B-Sider

1. My Apple is primarily for: ☐ Personal Use ☐ Business ☐ Education

2. My occupation is: ☐ Student ☐ Own my own business ☐ Employee

3. I use the following programs in my Apple (check all that apply):

☐ Apple Works
☐ PFS File
☐ Bank Street Writer
☐ Mastertype
☐ Mastertype
☐ PFS Report
☐ PFS Write
☐ AppleWriter
☐ Dollars & Sense
☐ Multiplan
☐ General Accounting; BPI
☐ Write my own

4. I have the following for use with my Apple:

☐ Printer ☐ Modem ☐ Drive
☐ Monitor ☐ Other: _____

5. I would like First Class Peripherals to offer the following computer products at an affordable price: _____

_____

_____

6. Comments

Please return to: FIRST CLASS PERIPHERALS
3579 HIGHWAY 50 EAST
CARSON CITY, NEVADA 89701