

# ***FORTRESS***

**External Hard Drive  
USB 2.0/IEEE 1394a/FireWire User's Manual**



ultimate data protection...

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## Introduction:

Thank you for selecting the Fortress External Hard Drive. You have purchased the most rugged, technology advanced and highest quality external drive available. The peripheral is the new standard in secure, portable storage and provides you with total peace of mind in knowing your valuable data is protected.

## Product Features:

- 1. USB 2.0 & FireWire** – Dual interfaces in one drive give you total connection flexibility.
- 2. Shock Protection** – Totally safeguards your data from a drop-height of 72 inches (1.83 metres) onto **CONCRETE**.
- 3. Huge Storage** – Choose from 80, 100, 120 & 160 GB models so you can store large graphic, audio and video files.
- 4. Heatsinking** – Internal heatsinking increases disk drive life/reliability – an industry first!
- 5. Oxford 911 Chipset** – The industry standard for 1394/FireWire connectivity provides ultra fast performance.
- 6. Vibration Free** – Internal dampening system isolates the disk drive to increase life and reliability.
- 7. Cross Platform** – Compatible with Macintosh, Windows and Linux OS. Plug-N-Play installation.
- 8. Ruggedized Design** - Unbreakable, aluminum alloy enclosure. Fully CNC machined and 100% nickel-plated.



## **Package Contents:**

Fortress Hard Disk Drive  
36" USB-2.0 A/Mini B 5 Pin Cable  
36" 1394/FireWire 6 Pin/6 Pin Cable  
36" 1394/FireWire 4 Pin/6 Pin Cable  
USB/PS2/DC Power Cable  
External Power Adapter

## **Host System Requirements:**

Power Requirements\*: 5v  $\pm$ 5% (the drive is Bus powered but in rare instances external power will be required. An open USB port, PS/2 port or the optional external power adapter can provide external power. External power is delivered to the drive through the drive's DC receptacle.

Available USB\* Port or 1394/FireWire/i.Link port.

\*Host computer must be USB 2.0 enabled to achieve high-speed data transfer rates.

CD-ROM Drive for device driver installation or internet connection for driver download, where applicable. No driver installation is required when using recent versions of Windows and Macintosh operating systems (Windows 2000/ME/XP/Vista and Mac OS 10.1/9.1).

## **OS Software Requirements:**

Microsoft Windows: 98SE/2000/ME/XP/Vista

Macintosh: OS 8.6 & above

Linux Kernel: 2.4 & above



## Software Device Driver Installation:

### Windows:

**USB:** No software driver installation is necessary as the Fortress drive uses the native OS driver. Should a need arise where a driver is required, please install the Windows driver located on the "Fortress External Hard Drive User's Manual & Windows Device Driver" CD that was enclosed in the drive package - install as follows:

**Note! Always disconnect the Fortress drive from your computer before performing a software driver installation/upgrade.**

1. Insert Device Driver CD.
2. Click the "tppinst\_5\_04.exe" icon.
3. You may be prompted to select a language. If so, select language and click "OK".
4. The Install Shield Wizard window will open up. Click "Next".
5. You will be prompted to select a Set Up. If prompted, select "Complete" (not "Custom") and click "Next".
6. Click "Next" to finish the driver installation and restart your computer.
7. Connect the Fortress drive as per the USB connection instructions. The drive should be automatically recognized and can be viewed/accessed by opening "My Computer" or "Windows Explorer"

**FireWire:** No software driver installation is necessary as the Fortress drive uses the native OS driver.

### Macintosh:

**USB:** No software driver installation is necessary as the Fortress drive uses the native OS driver.

**FireWire:** No software driver installation is necessary as the Fortress drive uses the native OS driver.

Updates for Apple FireWire drivers can be downloaded from:

[http://download.info.apple.com/Apple\\_Support\\_Area/Apple\\_Software\\_Updates/English-North\\_American/Macintosh/FireWire/](http://download.info.apple.com/Apple_Support_Area/Apple_Software_Updates/English-North_American/Macintosh/FireWire/)



## Linux:

To use the Fortress drive with the Linux OS please perform the following:

1. Connect the Fortress drive after Linux has booted. You should do this in your "root" account.
2. Next, use whatever partitioning tool to verify if the Fortress is recognized and the partition is seen.
3. Create a mount point in folder `mnt`. Choose and enter a name for this folder, "Fortress" for example.
4. Next, add the following line into FSTAB:

```
/dev/sda1 /misc vfat noauto,user 0 0
```

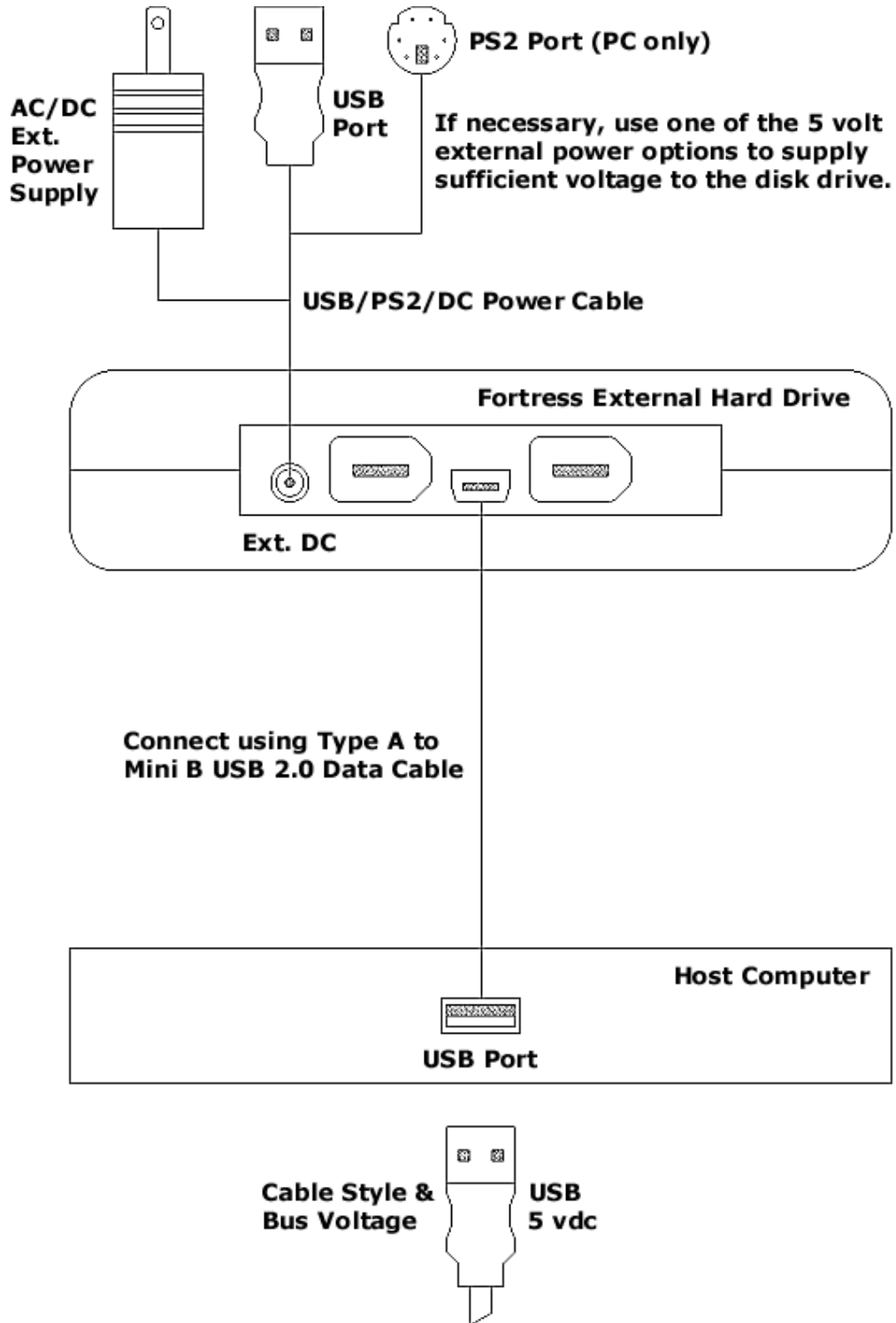
At this point, you may choose to mount the Fortress drive through the command line, or you may create an icon on the desktop for the drive.

To mount the Fortress drive using the command line, enter the following: **Mount -t vfat /dev/sda1 /fortress**

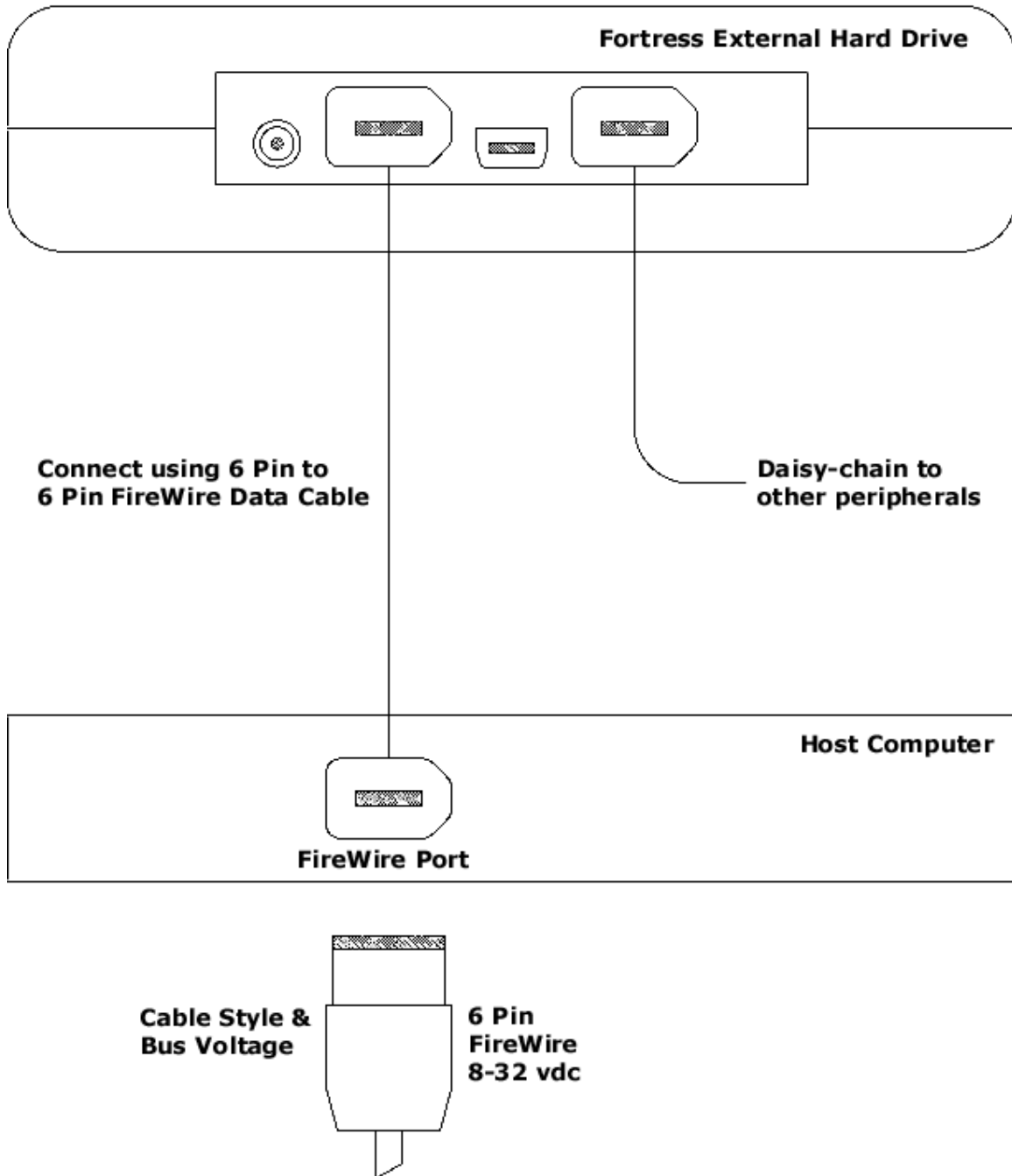


## Hard Drive Installation:

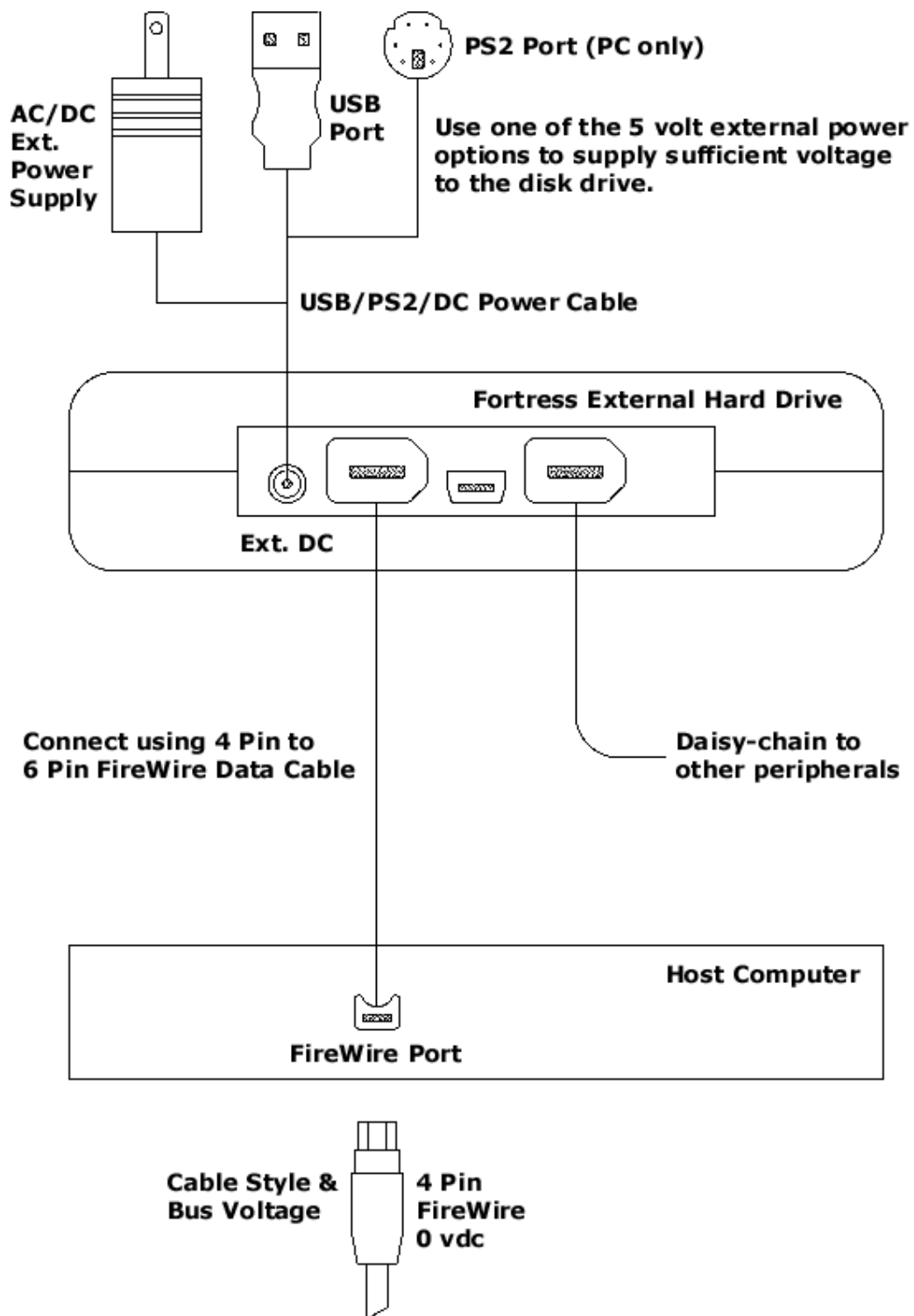
### Using a USB 2.0/1.1 Connection



## Using a 6 Pin to 6 Pin FireWire Connection



## Using a 4 Pin to 6 Pin FireWire Connection



## **Disconnection/Removal of Hard Drive using:**

**Note!** To avoid possible data loss, **always** disconnect/remove the Fortress drive as described below.

### **Windows:**

Click on the "Stop Storage Device" icon on the task bar. (The rectangular shape icon with a green arrow through it.) After the computer instructs you that it is now safe to remove the device, you may disconnect the Fortress drive.

### **Macintosh:**

Simply drag the desktop Fortress icon into the Trashcan.

## **Product Care:**

**Cleaning:** The Fortress enclosure (case) should be cleaned using a soft, abrasion resistant cloth. It is permissible to use a *very slightly* dampened cloth. Do not use any chemical cleaners/solvents to clean the enclosure as they may damage the finish.

**Drive Maintenance:** We suggest that you periodically run a disk utilities program, such as Scan Disk and Disk Defragmenter, to maintain peak drive performance etc.

**Handling:** Although the Fortress drive is the most rugged drive available, care should be taken to avoid unnecessary abuse.



## **Fortress - External Hard Drive Warranty:**

Fortress Corp. and its distributors/retailers are NOT liable for any loss/corruption of data through the use of the Fortress product.

Fortress Corp. and its distributors/retailers are NOT liable for any monetary losses/expenses due to the loss/corruption of data.

We suggest users make back-up copies of all data on a separate device to ensure no losses are incurred in the event of data loss/corruption.

The Fortress External Hard Disk Drive is warranted against defects in materials, workmanship and operation as follows:

1. Internal Interface/Logic Electronics/Cables/Accessories:  
Warranted for a period of 3 years from the date of purchase/shipment.
2. Hard Disk Drive only:  
Warranted for a period of 3 years from the date of purchase/shipment.
3. Enclosure (Case) Assembly:  
Warranted for the life of the product from the date of purchase/shipment.

All warranties are void under the following conditions:

1. The product has been subjected to unwarranted abuse, in excess of its stated operational specifications.
2. The product was purchased from/through an unauthorized third party.
3. The product enclosure (case) has been opened.
4. The product has suffered fire/water damage.



### **3<sup>rd</sup> Party Back-Up Software:**

The Fortress drive is sold with both Windows and Macintosh file backup software programs. We have selected the following software based upon ease of use, features and their solid reputations.

**Windows version:** Nti Backup NOW! 3.0

**Macintosh version:** FWB Backup Toolkit

### **FAQ's (Frequently Asked Questions):**

To view the most up to date list of FAQ's, please visit the Fortress website at [www.4tress.com](http://www.4tress.com) and click on the "Support" button to access the list.

The following FAQ's will often answer most technical questions/problems:

#### **General and Operating Systems Questions:**

##### **What are USB and FireWire?**

**USB** stands for Universal Serial Bus and is a simple and high-speed system for connecting peripheral devices to a computer. Virtually all computers today are equipped with USB ports and this allows a user to connect up to 127 separate devices to their computer by using a USB hub. The original version of USB, 1.1, provided a maximum data transfer speed between the host computer and the connected device of up to 12 Mbps. The latest USB, version 2.0, provides a data transfer speed of up to 480 Mbps and is backwards compatible with version 1.1.

**FireWire** was developed by Apple Computer and, like USB, is a simple and high-speed system for connecting peripheral devices to a computer. All recent model Apple computers are equipped with FireWire ports, allowing the user to daisy-chain up to 63 separate devices to their computer. FireWire provides a data transfer speed of up to 400 Mbps. FireWire is also known as IEEE 1394 and i.LINK.

##### **Summary:**

USB 2.0 and FireWire are very similar systems in terms of data transfer speeds and usability. Both systems provide power for the peripheral devices through their respective ports and they are Hot-Swappable/Pluggable and Plug-N-Play. Most computers sold today are equipped with both USB and FireWire ports, giving you total connection flexibility with the Fortress drive!



### **Can I unplug the drive while the host computer is running?**

NO!!

Using a PC: To avoid losing any data you **MUST** first select the Unplug/Eject icon on the task bar, select (highlight) the drive and click the 'Stop' button. You may now unplug the drive.

Using a Macintosh: To avoid losing any data you **MUST** first drag and drop the drive into the 'Trash'. You may now unplug the drive.

### **Will the Fortress disk drive function with computers using the Windows 95 Operating System?**

No. The Windows 95 operating system has very little support for USB devices and consequently no software driver for the Fortress disk drive is available.

### **Why is the available storage capacity shown as less than the stated total capacity of the Fortress drive, i.e. 80, 100, 120 or 160 GB?**

All Fortress drives are formatted to be user-ready. The formatted capacity of your hard-disk drive may seem smaller than what you ordered because the operating system reports drive capacity assuming that 1 megabyte (MB) equals 1,048,576 bytes while drive manufacturers consider 1 MB to equal 1,000,000 bytes. Formatted capacity refers to the amount of space on the drive that is actually available to the user for data storage. Formatted capacity can be calculated by multiplying the number of read/write heads by the number of cylinders, sectors, and sector size.

### **Which USB and IEEE 1394/FireWire add-in cards/adapters are recommended?**

We only recommend using PCI cards manufactured by Adaptec: [www.adaptec.com](http://www.adaptec.com)

### **USB Questions:**

#### **Will the Fortress disk drive function using the Microsoft Windows OS USB software drivers?**

Usually yes, the drive is Plug-N-Play but in some instances it may be necessary to install our USB software driver. To eliminate any chance of a problem we recommend installing/using the Fortress USB driver. Click [here](#) to download our USB driver.

#### **Is my computer USB 1.1 or USB 2.0 enabled?**

The majority of recently manufactured computers are USB 2.0 enabled. Computers made prior to September 2002 are probably USB 1.1 enabled. If your computer is more than a year old it's definitely USB 1.1 enabled. Contact the manufacturer if you're unsure. You can upgrade to USB 2.0 by installing an appropriate PCI add-in/adapter card.



### **Will the Fortress disk drive function with a USB 1.1 equipped host computer?**

Yes. The USB 2.0 disk drive is backwards compatible with USB 1.1 but data transfer speeds using USB 1.1 will be significantly slower.

### **Can I connect the Fortress disk drive to a USB hub?**

Yes but it must be a "powered" hub\*. If the hub is non-powered there will be insufficient power to operate the drive. In this instance you can supply the extra power required in one of two ways:

1. Use the USB/PS2/DC Power Cable to supply the necessary power from the computer's PS2 keyboard port or an open USB port.
2. Use the optional Fortress external power supply.

\*Some "powered" hubs do not meet the USB electrical specification. In this instance you can supply the necessary power to the drive as described above.

### **How can I verify that my USB port has enough power\* to operate the Fortress drive?**

#### **Using Windows 98/Me OS:**

Right-click the My Computer icon. Select Properties. Select the Device Manager tab. In the Device Manager, click the + sign next to Universal Serial Bus Controllers. Right-click the USB Root Hub and select Properties. Select the Power tab and then select the Power Properties button. This will tell you how much power is available and how much power is being given to each device. The port must have a minimum of 500 milliamps of power available to operate the Fortress drive.

#### **Using Windows 2000/XP/Vista OS:**

Right-click the My Computer icon and select Manage (Note: In Windows XP it may be necessary to click Start to access My Computer). Under the category System Tools, select the Device Manager. Click the + sign next to Universal Serial Bus Controllers. Right-click the USB Root Hub and select Properties. Select the Power tab. This will tell you how much power is available and how much power is being given to each device. The port must have a minimum of 500 milliamps of power available to operate the Fortress drive.

\*Some USB ports may show they have enough power available but their output voltage is low and insufficient to operate the Fortress drive. To overcome this limitation you can supply power to the disk drive in one of two ways:

1. Use the USB/PS2/DC Power Cable to supply the necessary power from the computer's PS2 keyboard port or an open USB port.
2. Use the optional Fortress external power supply.

### **Why is the data transfer rate slow?**

Make sure you are using the cable that came with your drive. To achieve USB 2.0 data



transfer speeds you must use a certified USB 2.0 cable.

### **IEEE 1394/FireWire Questions:**

#### **Can I use the drive's FireWire connection interface with Windows 98?**

No. FireWire is only supported by Windows 98SE (second edition), Windows 2000, Windows ME and Windows XP.

#### **Can I use the drive's FireWire connection interface with Windows NT?**

No. FireWire is only supported by Windows 98SE (second edition), Windows 2000, Windows ME and Windows XP.

#### **Why doesn't the drive power-up when connected to my FireWire port?**

Computers (usually older models) with a 4 pin FireWire connection do **not** provide power through the port. The standard FireWire port uses 6 pins and **does** supply power through the port (Note: a 4 pin FireWire connector is visibly smaller than a 6 pin connector). If your computer has a 4 pin connection you can supply power to the disk drive in one of two ways:

1. Use the USB/PS2/DC Power Cable to supply the necessary power from the computer's PS2 keyboard port or an open USB port.
2. Use the optional Fortress external power supply.

#### **What is the earliest version of the Apple Macintosh Operating System that will support the drive's FireWire connection interface?**

OS Version 8.6

#### **Can I boot off of the Fortress disk drive using a FireWire connection?**

Yes. Booting is possible on all Apple Macintosh computers that have integrated FireWire ports. Set-up the Fortress drive as follows:  
Connect the FireWire drive and verify that the drive is recognized. Install the appropriate system software to the Fortress drive. Open the StartUp Disk Control Panel and select the FireWire drive. Restart your computer.

Note: Booting off of the Fortress drive is not possible if you are using an Apple Blue & White G3 or the PCI Graphics models of the G4. (See Apple Knowledgebase Article # 58606).

#### **Why doesn't the drive work when connected to the S200 ILINK port of my Sony VAIO computer?**



The S200 port does not support mass-storage devices. You must connect the Fortress drive to the S400 port on the VAIO computer.

**Why won't the Fortress drive function with my Apple Macintosh computer?**

You may need to update your Apple software drivers. The Fortress disk drive requires Apple FireWire support version 2.3.3 or above which includes FireWire Enabler & FireWire Support.

