TEMPO[™]-X eSATA 8 8-PORT SERIAL ATA PCI-X HOST CONTROLLER

Quick Start Guide for Tempo-X eSATA 8

You Should Have

The following item should be included in your product package:

• One Tempo-X eSATA 8 card

The following item may be required for installation:

• Medium Phillips screwdriver

The following items are required for installation:

- One or more external drive enclosures (sold separately)
- One or more external Serial ATA (eSATA) data cables (sold separately)

System Requirements

The Tempo-X eSATA 8 requires the following in order to operate in your system:

- One available PCI-X or PCI slot
- Mac OS® X Version 10.2.x or later, or Windows® XP

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Support Notes: We recommend that you make a backup of important information on your system's current hard drive prior to installing new hardware or software.

When handling computer products, you must take care to prevent components from being damaged by static electricity. Before opening your computer or removing parts from their packages, always ground yourself first by touching a metal part of the computer, such as a port access cover, and work in an area free of static electricity; avoid carpeted areas. Handle all electronic components only by their edges, and avoid touching connector traces and component pins. Also, avoid touching the logic board and any of its components.

WARNING FOR MAC USERS: This product is not compatible with the HighPoint RocketRAID product or the kernel extension installed by its supporting software. If you have the HighPoint product installed in your system, be sure to remove the HPTRAIDController.kext file before you install the Tempo-X eSATA 8 into your system. Refer to the RocketRAID documentation for detailed instructions.



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Support Note: Technical knowledge may be required to gain access to the drive expansion bays in certain computers. We recommend you first consult your computer's user manual. If you feel you are unable to install the computer hardware, contact a gualified technician.

Installation Preparation

Prior to installing the Tempo-X eSATA 8 into your system and connecting any drive enclosures, you should familiarize yourself with the parts to be installed. We also strongly recommend that you read the sections in your computer's user manual that address hard drive and PCI card installation.

- 1. Figure 1 shows the Tempo-X card's eSATA ports; depending on the drive enclosure(s) used, you will need to use data cables with eSATA connectors on both ends, or cables with an eSATA connector on one end and SATA I connector on the other end (all enclosures and cables sold separately). Note: SATA I connectors are used on SATA hard drives.
- 2. Figure 2 shows both eSATA and SATA I connectors.

Hardware Installation Steps

This section covers the installation of the Tempo-X eSATA 8 into your system and connection of one or more hard drives.

- 1. Shut down the computer.
- 2. Open your computer to access its expansion card area (PCI slots); refer to your computer's user manual for specific information.
- 3. Locate an available PCI-X or PCI slot inside your computer and remove its access cover, if present, from the rear of the computer.
- 4. Remove the Tempo-X card from its packaging.



Support Note for Power Mac G5 Users: Due to its size, the Tempo-X eSATA 8 card may not be installed in slot 4 (closest to the drive bays), and may only be installed in slot 2 or 3. Users should be aware that when certain standard 33 MHz PCI adapter cards are installed along with the Tempo-X card in slots 2 and 3, the Tempo-X card's performance may be adversely affected.

- 5. Install the Tempo-X card into the slot; make sure the card is firmly seated.
- 6. Secure the Tempo-X card firmly in place with the previously removed mounting screw if necessary, and then close the computer; be very careful not to pinch the cables.

Support Note: Sonnet strongly recommends you use high quality external SATA cables to connect your drive enclosures to Tempo-X eSATA 8. Low quality cables do not offer the proper shielding and durability high quality cables afford, and may allow data to be corrupted.

- 7. Connect the external Serial ATA data cable(s) between the Tempo-X card and the drives or drive enclosures; make sure all cables are connected securely to the Tempo-X card and the drives or enclosures.
- 8. If you are a Mac user, skip to page 4. If you are a Windows user, go to the next page.





Windows XP Driver Installation

This section describes the installation of drivers to support the Tempo-X eSATA 8 in systems running Windows XP.

- 1. Turn on your computer; during Windows startup, two *New Hardware Found* pop-ups will briefly appear, with IDE Controller and Standard Dual Channel PCI IDE Controller listed as the new hardware types.
- 2. Log on to the Internet and point your web browser to: www.sonnettech.com/downloads/adapter_sw.html#tsataxwin
- **3.** Find the icon that matches the version of Windows XP you are using, and then click the Download button beneath it, and save the file to your desktop.
- 4. Click Start > Control Panel. When the *Control Panel* window appears, double-click the *System* icon.
- 5. When the *System Properties* window appears, click the Hardware tab, and then click <u>D</u>evice Manager.
- 6. When the *Device Manager* window appears, click on the + next to IDE ATA/ATAPI controllers to expand the list. Rightclick on Standard PCI IDE Controller and select Update Driver.
- 7. When the Hardware Update Wizard window appears, select "No, not this time", and then click <u>N</u>ext.
- 8. When the next window appears, select "Install from a list or <u>specific location (Advanced)</u>" and then click <u>N</u>ext.
- 9. When the next window appears, select "Don't search. I will choose the driver to install" and then click Next.
- **10.** When the next window appears requesting you to select the device driver, select Standard Dual Channel PCI IDE Controller from the list, and then click <u>H</u>ave Disk...
- 11. When the Install From Disk window appears, click Browse.
- 12. Navigate to and open the Tempo-X Windows XP or Tempo-X Windows XP x64 folder, select "mvsata", and then click <u>Op</u>en.
- 13. When the *Hardware Update Wizard* window appears again, click <u>N</u>ext.
- 14. When the *Hardware Installation* window appears, the Tempo-X eSATA card will be identified as "Marvel Serial ATA PCI-X Adapter"; click <u>C</u>ontinue Anyway and the driver will be installed.

- 15. When the next window appears, click Finish.
- Click Start > Turn Off Computer, and then click Restart; you may now format drives attached to the Tempo-X card.

Windows Drive Formatting

If you intend to format drives connected to the Tempo-X eSATA 8 using Windows drive formatting tools, you may locate the information by using "format volume" as the search item in Windows Help.

Drive Formatting—Individual Drives (Not in a RAID Array)

This section describes the process of formatting (initializing) individual hard drives connected to the Tempo-X eSATA 8 using Disk Utility under Mac OS X Version 10.3; the process under Versions 10.4 and 10.2 are very similar. If you intend to create a RAID array with the drives attached to the Tempo-X card, skip to "Drive Formatting—RAID Arrays" on the next page.

1. Turn on your computer. During startup, your computer may display a message(s) referring to unreadable volumes; click Initialize... to launch Disk Utility (**Figure 3**).

2. If it is not already open, launch Disk Utility (**Figure 4**). Note that all attached drives appear in the information window, regardless of being formatted or not.

- **3.** Select the drive you want to format by single clicking the drive symbol or the "name" of the drive (**Figure 5**). At the bottom of the window, drive capacity and connection type are listed.
- 4. Click on the Partition button (Figure 5). Click on the drop down menu beneath "Volume Scheme:" and select a number of partitions for the volume; you may optionally choose to partition each drive to create two or more smaller "virtual" drives.
- **5.** Click to highlight a partition, and then type a name in the Name field; repeat for each partition (**Figure 5**). After formatting, each will appear in the Finder window as a drive. If you need to access a drive or partition from Mac OS 9, be sure to click the Install Mac OS 9 Drivers checkbox.
- 6. Click Partition (Figure 5).







Drive Formatting—Individual Drives (continued)

7. When the *Partition Disk* window appears, click the Partition button (Figure 6). If necessary, repeat steps 3–6 to partition any other drives connected to the Tempo-X card. When partitioning and formatting are complete, close the Disk Utility application; you can now use your drive(s).



Support Note: See page 7 for port identification and information on Tempo-X eSATA 8's status LEDs.





This section describes the process of formatting (initializing) individual hard drives connected to the Tempo-X eSATA 8 using Disk Utility under Mac OS X Version 10.3; the process under Versions 10.4 and 10.2 are similar. If you choose to do so, you may format your drives using SoftRAID 3.1 or later; refer to that product's documentation for instructions.

1. Turn on your computer. During startup, your computer may display a message(s) referring to unreadable volumes; click Initialize... to launch Disk Utility (Figure 7).



Support Note: All hard drives connected to the Tempo-X card will be described by Disk Utility as having an internal connection (Figure 8).

2. If it is not already open, launch Disk Utility (**Figure 8**). Note that all attached drives appear in the information window, regardless of being formatted or not.





Drive Formatting—RAID Arrays (continued)

Support Note: The remaining steps in this section describe the creation of a RAID 0 (striped) array. If you intend to create a RAID 1 (mirrored) array, the procedure is similar to the remaining steps. Please refer to Disk Utility help for further information.

- **3.** Select one of the drives you want to format in a RAID array by singleclicking the drive symbol or the "name" of the drive (**Figure 9**). At the bottom of the window, drive capacity and connection type are listed.
- 4. Click the RAID tab in the *Disk Utility* window, select all the drives you will use to create your RAID 0 (Stripe) array, and drag them into the disk field (Figure 9). Be careful NOT to accidentally drag in a drive you don't want included in the RAID.
- 5. From the drop-down menus, select the RAID scheme (stripe) and the volume format, and then type in the name for your RAID volume (Figure 9).
- 6. When the *Creating RAID* window appears, click the Create button; all of the selected drives will be formatted and the RAID volume created (**Figure 10**). Close Disk Utility; your drives are now ready to use and your installation is complete.

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Support Note: See page 7 for port identification and information on Tempo-X eSATA 8's status LEDs.

93.2 GB WDC WD10008] [First Aid Era	ase Partition RAID Restore	
Mac OS 9 Mac OS X 10.3.7		RAID Scheme:	Stripe	:
 ■ 69.2 C8 WDC WD740CD 		RAID Set Name:	untitled	
		Volume Format:	Mac OS Extended (Journales	4 ¢
		RAID Set Estimated Size:	277.0 GB	
	•	Oisk 69.2 GB - (ATA Device 0) WDC WD740GD-00FLA1 69.2 GB - (ATA Device 0) WDC WD740GD-00FLA1		
		□ 69.2 GB - (ATA Device 0) V □ 69.2 GB - (ATA Device 0) V	WDC WD740GD-00FLA1 WDC WD740GD-00FLA1	
				Create



About Tempo-X eSATA 8's Ports and LEDs

1. Each eSATA port on the Tempo-X card is assigned a channel number that may be helpful if you need to diagnose any issues (**Figure 11**).



- **2.** When drives connected to the Tempo-X card are powered and active, the status LEDs on the card will light (Figure 12):
 - Green LED ON: Drive is present and ready.
 - Amber LED ON/Flashing: Drive is reading/writing data.

