InfoSafe eSATA/USB 2.0 Dual 3.5" SATA Drive Enclosure with RAID

SAT3520U2ER
SAT3520UERGB
Instruction Manual

INFO SAFE

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

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Introduction

Thank you for purchasing a StarTech.com InfoSafe eSATA/USB 2.0 Dual 3.5" SATA Hard Drive Enclosure with RAID. This versatile storage solution allows easy installation of two 3.5" SATA I/II hard drives of up to 2TB capacity (each), for a total capacity of up to 4TB (non-RAID), and maximizes performance capabilities with support for a broad range of RAID applications including RAID 0, RAID 1, and Concatenated (BIG mode).

Features

- Rear panel power and fan on/off switches
- Easy configuration using dip switches or GUI
- Hard drive power and activity LEDs
- Supports data transfer speeds of up to 3Gbps (eSATA) and 480Mbps (USB 2.0)
- RAID can be used with either eSATA or USB 2.0 connection
- Supports RAID 0 (Striping or Fast), RAID 1 (Mirroring or Safe), BIG (Spanning or Concatenation), SAFE33/55 and JBOD modes
- Built-in 50mm cooling fan

Package Contents

- 1 x Aluminum Enclosure
- 1 x eSATA Cable
- 1 x Instruction Manual
- 1 x Software and Driver Installation CD
- 1 x Plastic Stand
- 1 x Power Adapter with Power Cord
- 1 x Screw Kit
- 1 x USB Cable

Hardware Guide
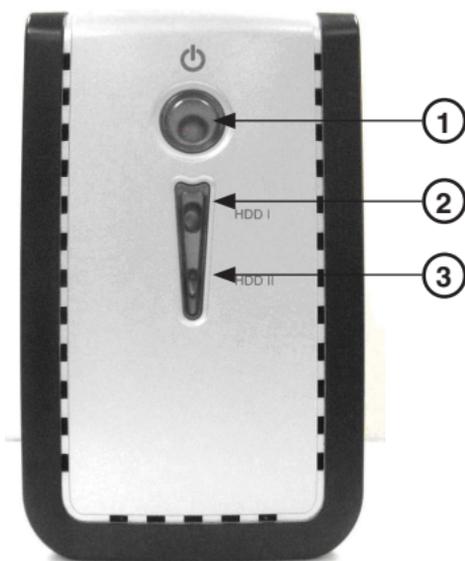
Front View

1. Power LED
2. HDD-1 LED
3. HDD-2 LED

Rear View

1. Fan
2. eSATA Connector
3. Power Switch
4. Power Adapter Socket
5. Fan Switch
6. USB Connector

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Installation

If connecting the enclosure to a host computer using the eSATA port, please note that in order to use some of the RAID modes of the enclosure, the eSATA port on the host computer system **must provide** Port Multiplier support. If the eSATA port does not offer Port Multiplier support, only one of the installed drives will be accessible.

Installing Drives in the Enclosure

1. Remove the screws holding the rear panel in place, then slide the rear panel out from the enclosure.

2. Place the first 3.5" SATA hard drive into the tray, then slide it forward until the drive interface is firmly connected to the SATA connector on the SAT3520U2ER/ SAT3520UERGB. Repeat this step with the second 3.5" SATA hard drive, using the remaining tray.

3. Secure the drives to the Enclosure tray, using the provided screws.

4. Select the operating mode for your hard drive using the DIP Switches shown below. Once you have set the DIP switches according to the desired RAID mode, press the Reset Button to save changes.

Reset Button
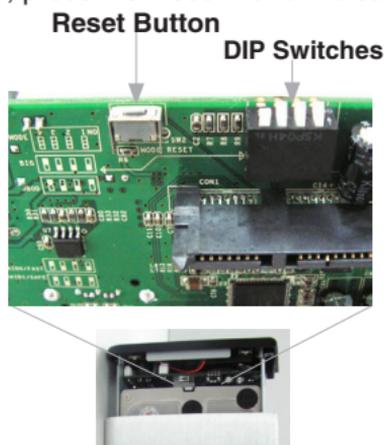
DIP Switches

	DIP Switch No.			
RAID Mode	**1**	**2**	**3**	**4**
GUI* (Requires Software Installation)**	ON	ON	ON	ON
JBOD*	ON	OFF	OFF	ON
BIG	ON	OFF	OFF	OFF
RAID 0 (Fast)	ON	OFF	ON	OFF
RAID 1 (Safe)	ON	OFF	ON	ON
RAID/SAFE33*	ON	ON	OFF	OFF
RAID/SAFE55*	ON	ON	OFF	ON

*denotes Port Multiplier requirement over eSATA

** Please see pg. 11 for more details on GUI Mode

5. Replace the Enclosure tray (with drives attached) into the Enclosure.

6. Secure the Enclosure tray within the Enclosure, using the screws removed in step 1.

Connecting SAT3520U2ER to the Host Computer

Once the hard drives have been installed within the Enclosure and the necessary dipswitch settings have been made:

1. Connect the power adapter (included) to the power adapter socket on the rear panel of SAT3520U2ER. Connect the remaining end of the power adapter to an available power outlet.

2. Connect SAT3520U2ER to the host computer using either an eSATA or USB cable (both included).

NOTE: if using eSATA, the host controller on the computer system needs to support Port Multiplier technology.

Partitioning Installed Drives

Once the necessary connection (either eSATA or USB) has been made to the host computer, from the host computer operating system:

1. Right-click on the **My Computer** icon and select **Manage**.
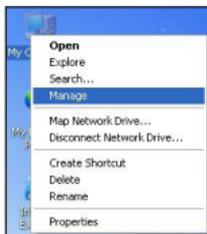
2. In the left pane of the Computer Management window, select **Device Manager**. The installed hard drives will appear as "unallocated", in the bottom half of the right pane.
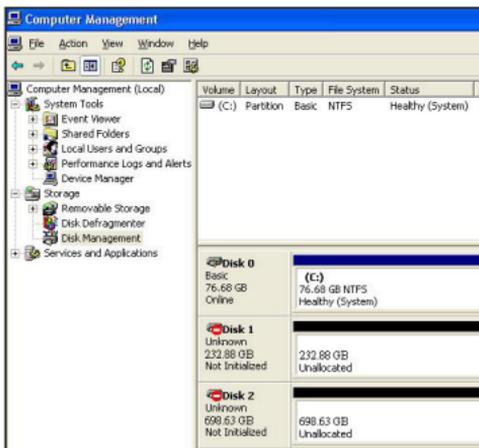
3. Right-click the Disk you wish to use and select **Initialize Disk.**
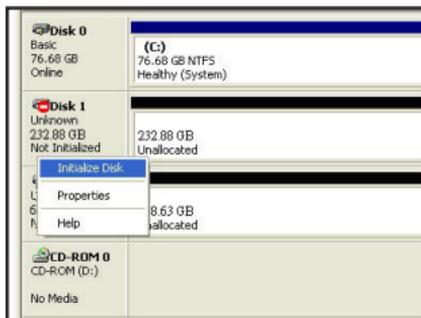
4. Click **OK** to initialize the disk.

5. The disk should now be shown as "Online." Right-click on the unallocated block and select **New Partition.**
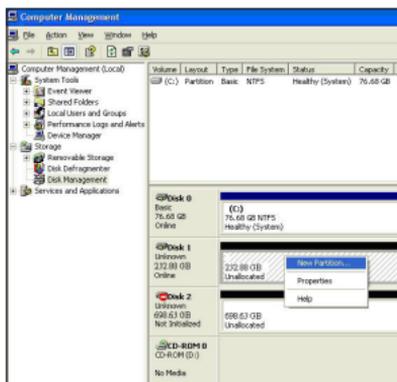
6. The **New Partition Wizard** will appear. Follow the on-screen instructions to complete the creation of the new partition. When the partition has been created, the hard drive should appear as "New Volume."
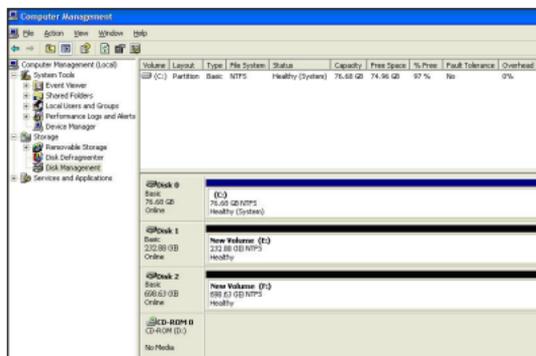
7. Repeat steps 1-6 to partition the second hard drive.

Software Operation Guide

Software Installation Guide

1. Insert the included Driver CD into the CD/DVD-ROM drive on the computer to which the Enclosure will be connected (host computer).

2. Click on the **Install GUI** icon.

3. Follow the instructions provided by the SteelVine Setup Wizard to complete the GUI installation.
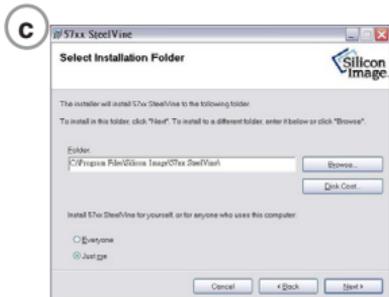
Using the SteelVine Manager

To start the program, click **Start > Program Files > Silicon Image 57xx SteelVine > SteelVine Manager.**

Once started, the SteelVine Manager Application can be found in the Notification Tray, (typically located at the bottom right hand corner of the screen near the clock). Double-click on the notification tray to open the SteelVine Manager GUI status window. The SteelVine Manager icon remains active in the notification tray, even if you close the SteelVine Manager window. It can be closed by right-clicking the icon and clicking **Exit.**

SteelVine Manager Application ———————

Changing the RAID Mode Using the GUI

In order to change the RAID mode of the SAT3520U2ER/SAT3520U-ERGB using the GUI, the DIP switches must be set to GUI mode. For detailed instructions on setting the unit to GUI mode using the DIP switches, refer to step 4 of the installation process (page 4).

1. Open the SteelVine Manager Application.

2. Click on the **Configure Box Icon.**
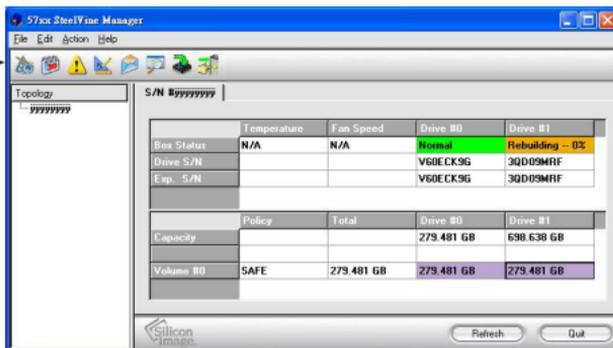
3. Select the storage policy you wish to use, then click **Apply** to finalize the switching process.
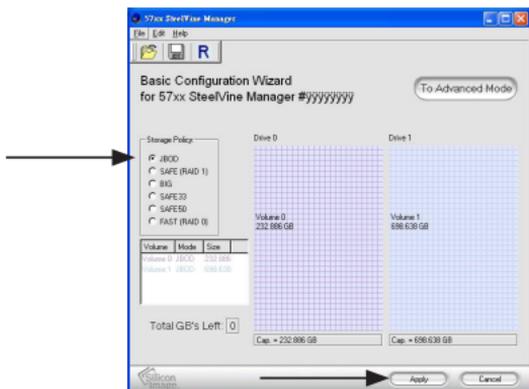
For further instructions pertaining to the operation of the SteelVine Manager, refer to the SteelVine User Guide included on your device's software CD.

RAID Mode Overview

1. GUI Mode

This mode offers configuration through the GUI (Graphic Utility Interface), thus requiring that you install the included software. Using this mode, you can allow different RAID combinations through the software interface. This mode is recommended for professional and advanced users.

GUI Mode retains the disk configuration of the last mode for which the enclosure was set (i.e. if the disks were configured as JBOD before being set for GUI, they will still show as two separate disks. However, if set for RAID0, it will still display as one large disk).

2. JBOD (Single) Mode (default)

The installed drives will be configured as JBOD (Single)(Just a Bunch Of Disks). The number of available drives is equal to the number of physical drives.
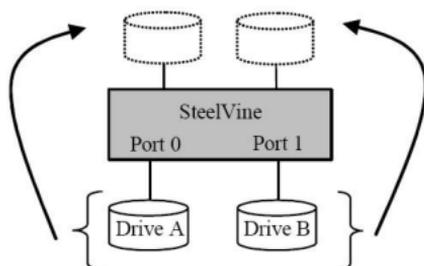
3. BIG (Span) Mode

Installed drives are configured to offer maximum storage space (concatenated), but no additional performance or data redundancy.
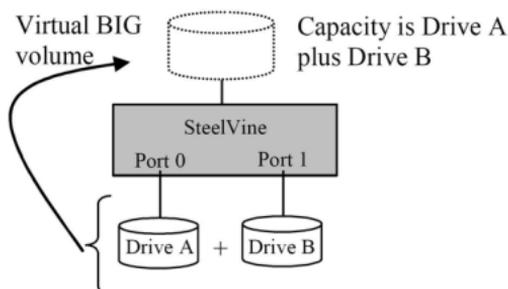
4. RAID 0 (FAST) Mode

A storage policy configuration in which I/O processing is balanced evenly to all disks in a method known as striping, equivalent to RAID 0. This mode offers the best performance in terms of speed, but no data redundancy.
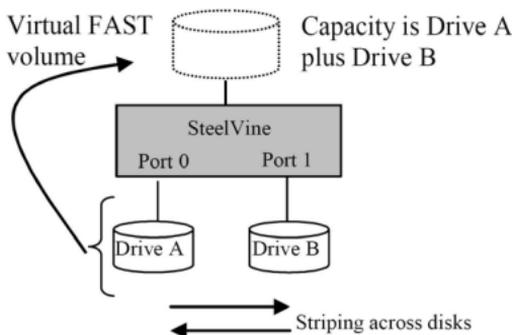
5. RAID 1 (SAFE) Mode

A storage policy configuration in which all data written to the hard drive is duplicated (mirrored) onto the second physical disk to protect against data loss due to disk failure. Equivalent to RAID 1, Safe mode provides the highest level of data protection, but reduces the amount of storage space by half since all data must be stored twice.
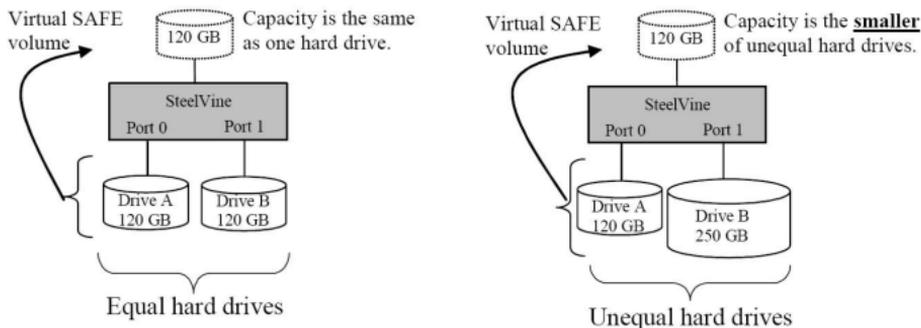
6. SAFE33 Mode

The RAID Mode is SAFE33, wherein 30% of each HDD is used to build a SAFE(mirror) RAID and also uses the rest of the capacity to build a second BIG(Span) HDD. In this mode, two physical drives will be recognized, one is SAFE(mirror) and the other is BIG(Span).
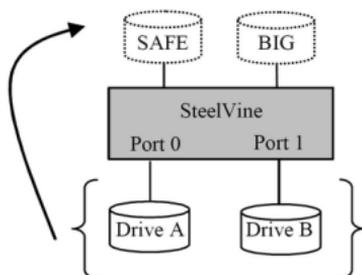
7. SAFE55 Mode

This configuration takes 55% of both drives to build a SAFE(mirror) RAID; the remaining drive capacity is used to build a BIG(span) RAID. In this mode, the system recognizes two physical drives - one SAFE(mirror) and the other, BIG(span).
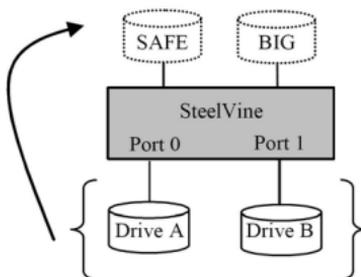
Specifications

Chipset ID	Silcon Image SIL5744
Supported Drive Capacity	Up to 2TB for each bay
Power Adapter	(12V 4.2A) 50W
Maximum Data Transfer Rate	eSATA - 3 Gbps USB 2.0 - 480 Mbps
RAID Modes Supported	JBOD, RAID 0,1, 0+1 and BIG+RAID 1
Fans	1 x 50mm
Drive Type Compatibility	3.5" SATA revision 1.x (1.5Gbps) and revision 2.x (3.0Gbps) internal hard drives
OS Support	Windows ME/2000/XP/2003/Vista, MAC OS 9.0 +, and Linux 2.4.1.0 +
LED Indicators	Power, HD1, HD2
AC input	100-240 VAC
Enclosure Type	Aluminum
Connector Types	1 x eSATA* 1 x USB type B (female)
Product Dimensions (L x W x H)	199 mm x 74 mm x 75 mm (7.83 in) x (2.91 in) x (2.95 in)
Regulatory Certifications	CE, RoHS, TUV, UL

*eSATA host controller requires Port Multiplier support

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