

Taurus Super-S Combo

*Dual-Bay Storage Enclosure for
3.5" Serial ATA Hard Drives*



User Manual

May 11, 2009 - v1.1

CE

EN

Table of Contents

<u>CHAPTER 1 - INTRODUCTION</u>	1	<u>CHAPTER 3 - SYSTEM SET UP</u>	7
ICON KEY	1	CONNECTION TO YOUR COMPUTER	7
THE TAURUS SUPER-S COMBO	1	HARD DISK MODE	7
OTHER AVAILABLE INTERFACES	1	RAID SETUP	7
DETAILED VIEW	2	RAID 0 - SPANNING	7
FRONT VIEW	2	RAID 0 - STRIPING	7
LED INDICATION	2	RAID 1 - MIRRORING	8
SMART FAN	2	INSTALLATION ON A PC	9
REAR VIEW	3	REMOVE PROCEDURE	9
RAID JUMPERS	3	INSTALLATION ON A MACINTOSH	10
SYSTEM REQUIREMENTS	4	REMOVE PROCEDURE	10
PC REQUIREMENTS	4	PARTITIONING & FORMATTING	11
MAC REQUIREMENTS	4	PC RUNNING WINDOWS	11
PACKAGE CONTENTS	4	MAC OS	12
ABOUT DATA BACKUP	4		
<u>CHAPTER 2 - HARD DRIVE ASSEMBLY</u>	5	<u>CHAPTER 4 - APPENDIX</u>	13
		TECHNICAL QUESTIONS	13
		FAQ	13
		ABOUT THIS MANUAL	13

Chapter 1 - Introduction

Icon Key

Throughout this manual you will see icons on the left margin that denote either notes or special remarks as outlined below:



General notes and tips.



Important information.



Features mentioned in this manual may vary between different models.

The Taurus Super-S Combo

When it comes to raw power there is nothing to beat the new dual-bay Taurus. Available in the classic Pleiades design, the Taurus is built strong and rugged, offering more than enough capacity to store all your digital media files. Not only that, the Taurus can also back up and secure all of your data thanks to RAID protection.

Product Dimensions: 24.5cm x 13.3cm x 7.6cm
 9.65in x 5.23in x 3in

Other Available Interfaces

- FireWire 400/800 & USB 2.0 (RAID 0&1)
- FireWire 400/800 & USB 2.0 & eSATA
- Gigabit Ethernet
- USB 2.0
- eSATA

MS-DOS, Microsoft, Windows 2000/XP/Vista are trademarks of Microsoft Corporation. Apple Macintosh and Mac are trademarks of Apple Computer. All other third party brands and names are the property of their respective owners.



To turn on the power, press the ON/OFF switch for 3 seconds and release it. To turn it off, press the ON/OFF switch, hold it for 5 seconds and then release it again.

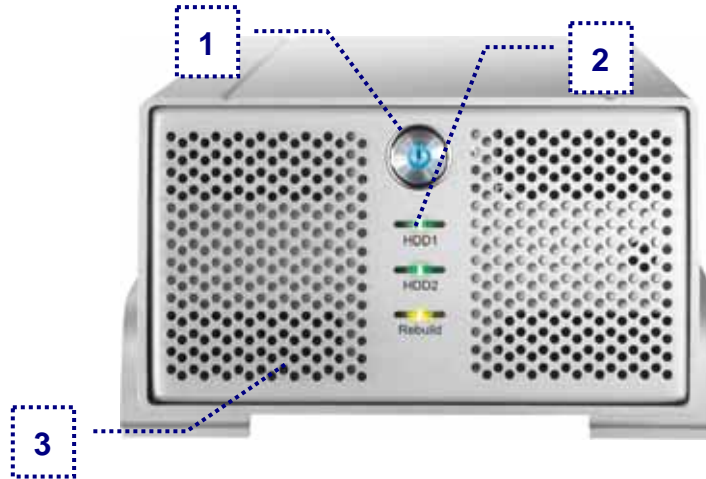


The HDD LED will turn red if there is an error or the HDD is not recognised.

Detailed View

Front View

1. ON/OFF switch (blue when ON)
2. LED indication
3. Ventilation holes



LED Indication

LED	HDD	Status
HDD1	CN2	<ul style="list-style-type: none"> • OFF = Power off • Green = HDD connected and ready • Red = Error or no HDD connected
HDD2	CN3	<ul style="list-style-type: none"> • OFF = Power off • Green = HDD connected and ready • Red = Error or no HDD connected
Rebuild	N/A	<ul style="list-style-type: none"> • OFF = Everything is working as expected • Green = Rebuilding data from HDD1 to HDD2 • Yellow = Rebuilding data from HDD2 to HDD1

Smart Fan

The smart fan automatically regulates the fan speed according to the internal temperature. It will use low speed from 0-35 degrees, half speed from 36-45 degrees and full speed above 46 degrees Celsius.



Two hard drives of identical capacity are recommended. If the capacity is different, the total amount of the space that can be used will depend on the drive with the smallest capacity.



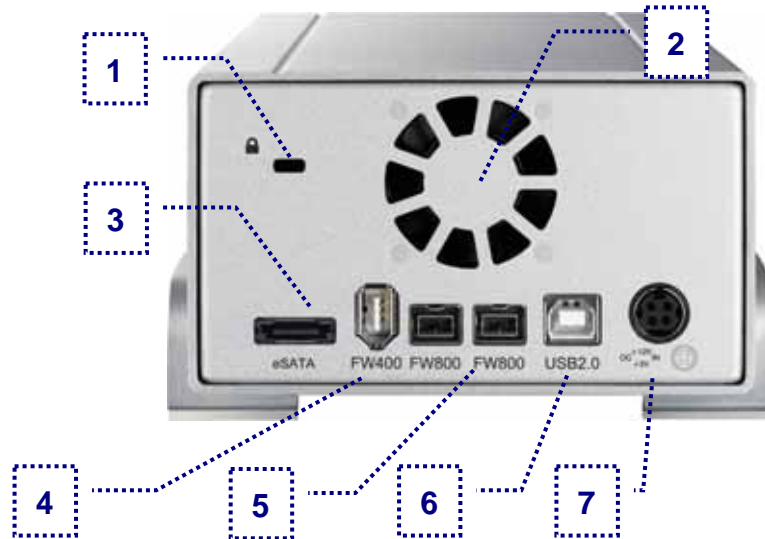
Changing the RAID setup will require you to re-format the drive. Make sure you backup all data before doing so.



This device is designed for two hard drives and does not work when only one is installed.

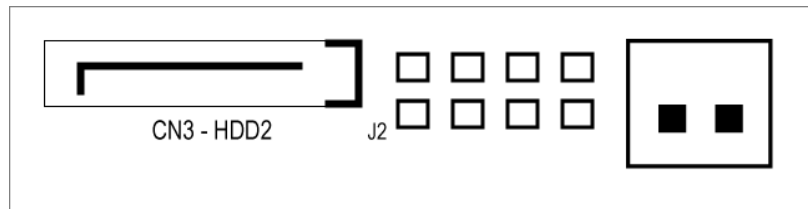
Rear View

- 1. Slot for security lock
- 2. Smart fan for ventilation
- 3. eSATA port
- 4. FireWire 400 port
- 5. FireWire 800 ports
- 6. USB 2.0 port
- 7. Power receptacle



RAID Jumpers

To change the RAID mode, modify the jumpers at J2 on the bridge board inside the enclosure.



Jumper	Mode	Explanation
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N/A	Remove all jumpers when the RAID mode is controlled via software utility.
<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	RAID 0	RAID 0 spanning. The drives appear as one large volume.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	RAID 0	RAID 0 striping, ideal where speed is the primary objective.
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	RAID 1	RAID 1 mirroring, creates an exact copy of all data for safety.

System Requirements

PC Requirements

- Minimum Intel Pentium III CPU 500MHz, 128MB RAM
- eSATA equipped PC; Windows XP/Vista
- FireWire equipped PC; Windows XP/Vista
- USB 2.0 (USB 1.1) equipped PC; Windows XP/Vista
- eSATA Plug and Play support required for host controller

Mac Requirements

- Minimum Apple G4 processor, 128MB RAM
- eSATA equipped Mac; Mac OS 10.4 or above
- FireWire equipped Mac; Mac OS 10.2 or above
- USB 2.0 (USB 1.1) equipped Mac; Mac OS 10.2 or above
- eSATA Plug and Play support required for host controller



Package Content may vary, depending on vendor & version.

Package Contents

- Taurus Super-S Combo (hard drives not included)
- External power adapter;
Input 100-240V, Output +12V/3A, +5V/4.2A
- Interface cables
- Manual

About Data Backup

To protect your files and help prevent the loss of your data, we strongly recommend that you keep two copies of your data, one copy on your Taurus and a second copy either on your internal drive or another storage media such as CD, DVD, Tape or an additional external drive.

Any loss or corruption of data while using the Taurus is the sole responsibility of the user, and under no circumstances will the manufacturer be held liable for compensation or the recovery of this data.



Your unit may come with pre-installed hard drives. Before opening such an enclosure, please read the warranty from your vendor carefully, as this could void your warranty.



The aluminium stand does not have to be removed for drive assembly.



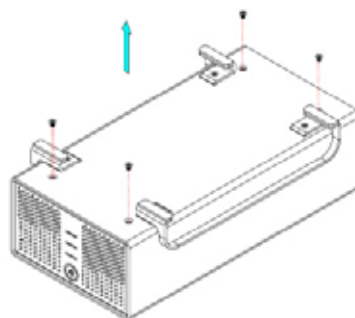
Drives with identical capacities are recommended.



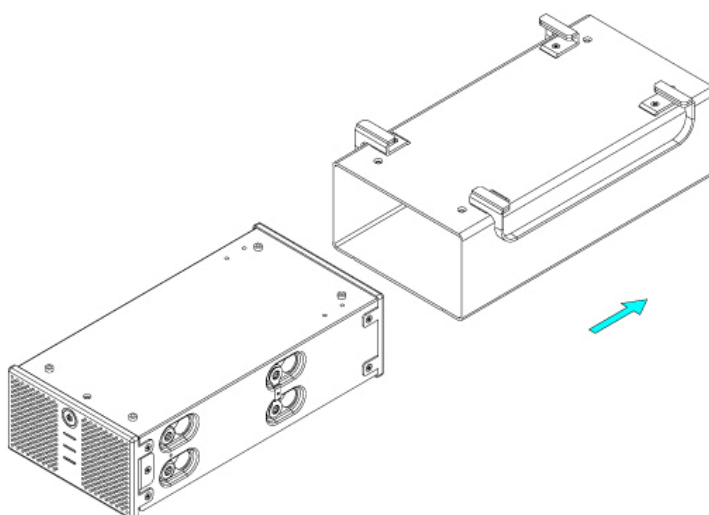
Do not bend the thermal sensor!

Chapter 2 - Hard Drive Assembly

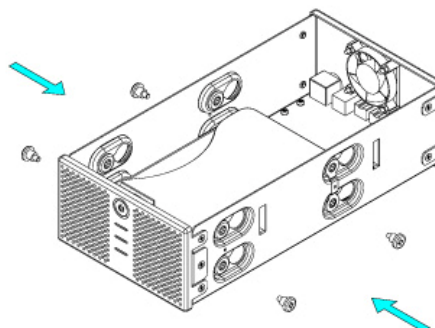
1. Remove the four screws at the bottom of the case.



2. Push the inner enclosure out, and remove the outer chassis.



3. Install the first hard drive and mount it with two screws on each side.



4. Attach the thermal probe with the tape provided to the first HDD. Choose a place in between the two drives but without damaging the probe when installing the second drive.



Be careful not to damage any cables or components, and make sure the cables are connected firmly.

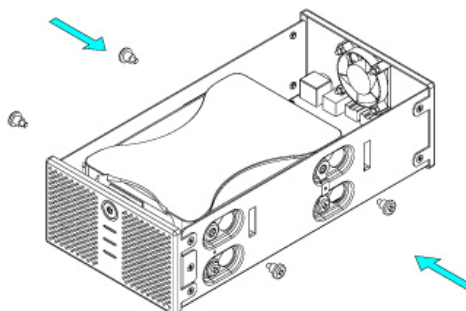


The LED indication for HDD1 is referring to the hard drive connected to CN2, where HDD2 is referring to CN3.



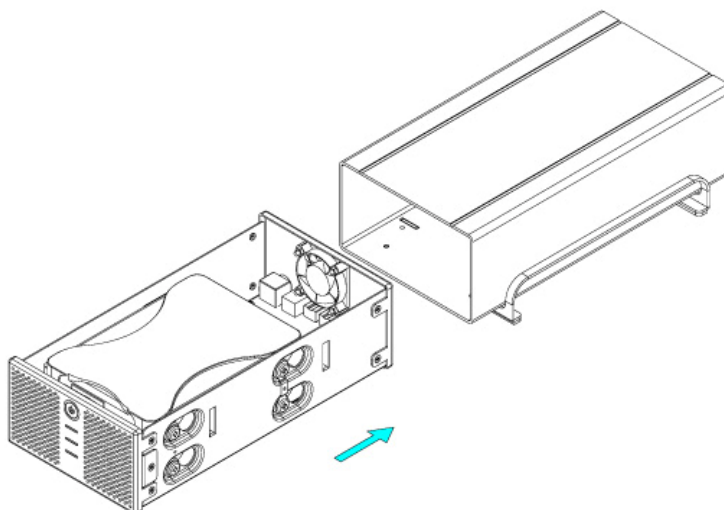
Upon initial start up of the device and when changing the RAID mode, any existing data on the installed hard drives will be erased. Make sure to backup all data prior to installing the drives and before changing the RAID mode!

5. Install the second hard drive and mount it with two screws on each side.

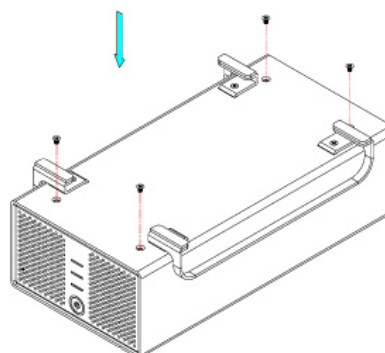


6. Connect the SATA and power cables to your hard drives. Be careful not to damage any components and confirm that the cables are connected firmly.

7. Slide the inner enclosure back into the outer chassis.



8. Fasten the four screws to finish the assembly.





Only one interface can be used at any given time.



Always connect the power adapter to your device before you plug it into the wall socket.



Changing the RAID setup will require you to re-format the drives. Make sure you backup all data before doing so!



To control the RAID mode via software utility, remove all the jumpers at J2.

Chapter 3 - System Set Up

Connection to your Computer

A few precautions when using your external storage enclosure:

- Check the cables for visible damage before turning it on
- Do not expose the product to water or humid conditions
- Do not cover the enclosure's ventilation holes

Hard Disk Mode

When using your Taurus, the USB connection always has the priority. To use a different interface, make sure to disconnect any of the other cables first, before connecting the new one.

When the Operating System goes into stand-by mode, the hard drives will also spin down but when not in use for a longer period of time, we recommend turning off the power.

RAID Setup

To change the RAID mode, turn off the power and modify the jumpers at J2 on the bridge board inside the enclosure.

RAID 0 - Spanning: The total capacity is twice the size of the drive with the smallest capacity. Spanning is an array (not RAID) that is written sequentially across the two drives. By itself, it does not provide any performance or redundancy benefits. If one drive becomes damaged, the whole array becomes corrupted.

RAID 0 - Striping: Used where speed is the primary objective, RAID 0 striping is not redundant. This form of array splits each piece of data across both of the drives in segments; since data is written without any form of parity data-checking, it allows for the fastest data transfer of the other modes. However, if one drive becomes damaged, the whole array becomes corrupted.



The data can be accessed even during the rebuild process.



The Rebuild LED will light up during the rebuild process. Green when the data is copied from HDD1 and yellow when the data is copied from HDD2.

RAID 1 - Mirroring: This mode requires 2 identical drives to implement, otherwise the total amount of the space that can be used will depend on the drive with the smallest capacity. RAID 1 creates an exact copy of a set of data on the second drive.

This is useful when reliability and backup are more important than data capacity. The available capacity to the user will only be as large as a single drive but when one of the hard drives fails, it can be replaced and the data rebuilt automatically.

When a drive fails, the corresponding LED (HDD1 or HDD2) will become red instead of green. To replace the faulty drive, do the following:

1. Turn off the Taurus and remove both the power supply and the interface cable.
2. Open the enclosure and replace the faulty hard drive with a new one.
3. Finish the assembly and connect the power supply.
4. Turn on the power and it will automatically start to rebuild the data.
5. The rebuild LED will light up during the rebuild process to indicate that it is restoring all the data. This process will take several hours, depending on the capacity of your hard drives.
6. When all the data is backed up, the rebuild LED will turn off and both HDD1 and HDD2 should be green again.

Note: The LED indication for HDD1 is referring to the hard drive connected to CN2. The LED at HDD2 is referring to the drive at CN3.



If the system doesn't recognise the drive, turn on the power first, before connecting the interface cable or connect the device before booting your Operating System.

Installation on a PC

Before connecting the device, setup the RAID mode using the selector switch at the back of the enclosure.

If the drives have been pre-installed and setup already, you do not need to change anything, unless you prefer a different setup.

- Turn on your Computer and start Windows.
- Connect the Taurus and turn it on.
- Let Windows search and install the driver automatically.
- Open "My Computer" to see your external hard drive.

Note: For more info about formatting, see "Partitioning & Formatting".

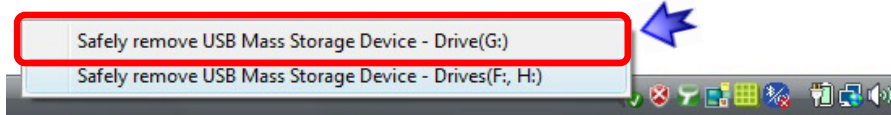
Remove Procedure

For the safe removal of your drive and to assure that no data is lost, always follow the correct unplug procedure. Otherwise, an error message will appear.

- Click on the taskbar icon for external hardware



- Choose your external hard drive and confirm to remove it





If the system doesn't recognise the drive, turn on the power first, before connecting the interface cable or connect the device before booting your Operating System.

Installation on a Macintosh

Before connecting the device, setup the RAID mode using the selector switch at the back of the enclosure.

If the drives have been pre-installed and setup already, you do not need to change anything, unless you prefer a different setup.

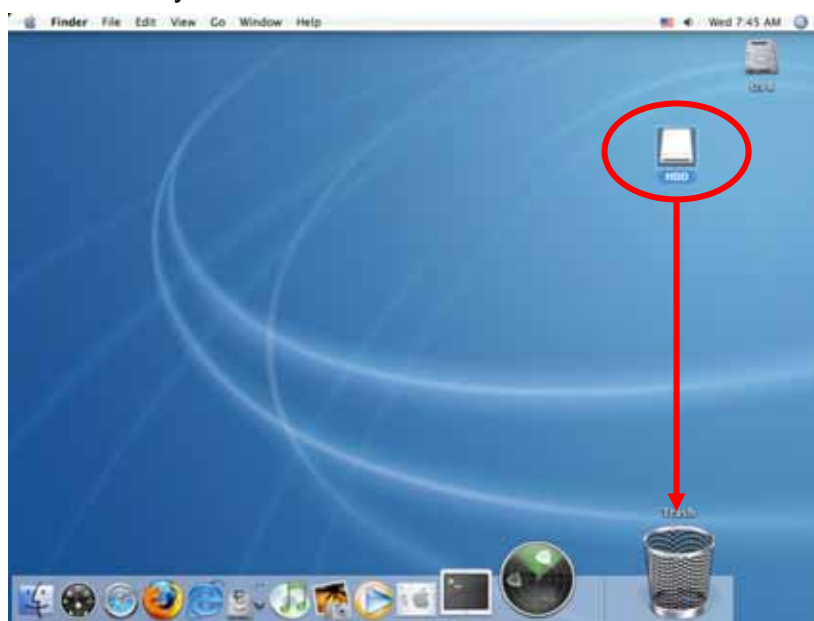
- Turn on your computer and start Mac OS.
- Connect the Taurus and turn it on.
- No driver installation required.
- The external drive will mount and show up on your desktop.

Note: For more info about formatting, see "Partitioning & Formatting".

Remove Procedure

For the safe removal of your drive and to assure that no data is lost, always follow the correct unplug procedure.

- Drag the external hard drive icon into the trash bin
- Turn off your device





If the drive does not appear, make sure the drivers are installed properly and the power is on.



Only one single volume will be visible instead of two separate drives.



In order for the computer to access volumes larger than 2TB, both the hardware and OS need to have the capacity to support large volumes (e.g.: WinVista 32bit/64bit or Mac OS 10.4 and above).

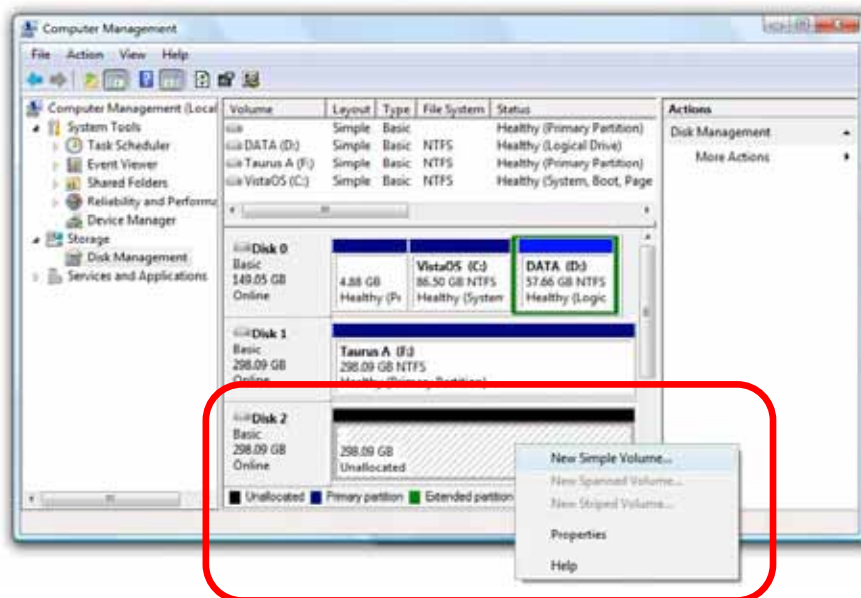
Partitioning & Formatting

Be aware that this will destroy all your existing data on the drive, so make sure you have a backup! This step is usually only required the first time you install a factory new hard drive, if you change the RAID mode or want to erase all data on your drive.

PC running Windows

For Windows, use the disk management program:

- Right click on “My Computer” and choose “Manage”
- Select “Disk Management”
- Choose the drive you want to format and right click on it for further commands (Choose New Partition)
- Follow the Partition Wizard to setup the drive



For WinXP and Windows Vista, we recommend formatting the drive using the NTFS file system.

If you are using the FAT32 file system to format the drive on WinXP or Windows Vista, the biggest single partition you can create will be 32GB. To create larger partitions, you need to use a 3rd party application or change to NTFS format.



If the drive does not appear on the desktop, make sure there are no extension conflicts and the power is turned on!



Only one single volume will be visible instead of two separate drives.

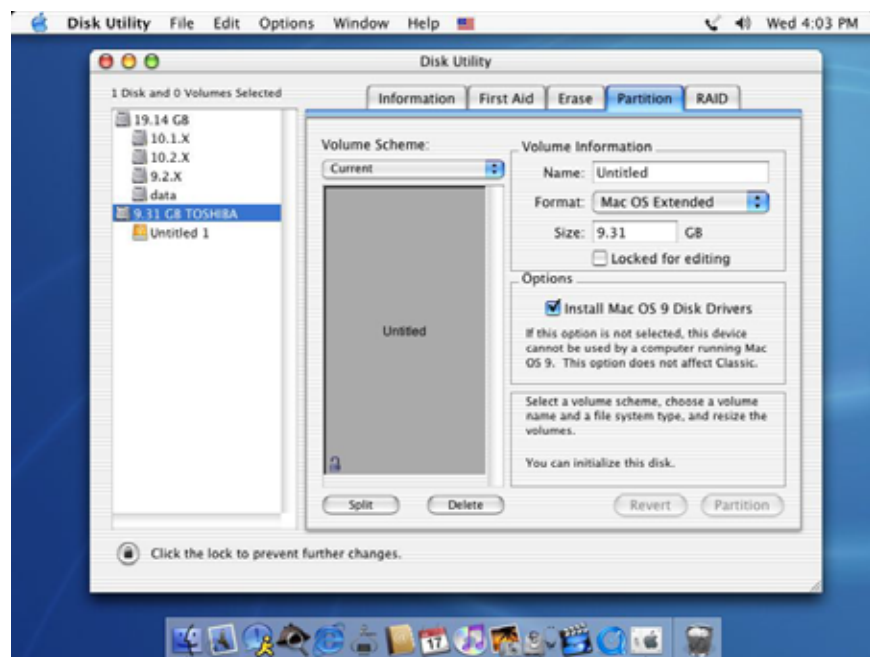


In order for the computer to access volumes larger than 2TB, both the hardware and OS need to have the capacity to support large volumes (e.g.: WinVista 32bit/64bit or Mac OS 10.4 and above).

Mac OS

For Mac OS X, use the disk utility to format and create partitions on your external disk.

- Select “Disk Utility” in the utilities folder
- Choose your external drive and format it according to your requirements



For Mac OS X, we recommend formatting the drive using the native Mac file system HFS+ also known as Mac OS Extended.

If you want to use your drive on a PC running Microsoft Windows as well as on your Mac, we recommend you to use the FAT32 file system. On your Mac, select MS-DOS when formatting it. Note: The file size for a single file on FAT32 is limited to 4GB.



Please read your warranty carefully, as this may vary between different vendors!

Chapter 4 - Appendix

Technical Questions

For RMA and other questions, please contact your vendor or check out their online support area!

FAQ

Q: What file system should I choose to format my drive?

A: This will depend on how you want to use the drive but in general, here is what we recommend:

- Windows XP/Vista → NTFS
- Mac OS X → HFS+ (Mac OS Extended)
- To use it on both PC and Mac → FAT32

Q: Can I install only one hard drive?

A: No, the Taurus Super-S Combo requires two hard drives.

Q: Can I install drives with existing data and access it?

A: No, the drives will have to be formatted the first time they are installed in the Taurus. Any existing data will be lost as soon as the device is turned on.

About this Manual

This manual covers the Taurus Super-S Combo model.

Firmware, images and descriptions may slightly vary between this manual and the actual product you have.

© Copyright 2009 by Macpower & Tytech Technology Co., Ltd. all Rights Reserved

The information contained in this manual is believed to be accurate and reliable. Macpower & Tytech Technology assumes no responsibility for any errors contained in this manual. Macpower & Tytech Technology reserves the right to make changes in the specifications and/or design of this product without prior notice. The diagrams contained in this manual may also not fully represent the product that you are using and are there for illustration purposes only. Macpower & Tytech Technology assumes no responsibility for any differences between the product mentioned in this manual and the product you may have.