# 2.5"/ 3.5" Dual SATA HDD Docking Station Clone & Erase

## User Manual
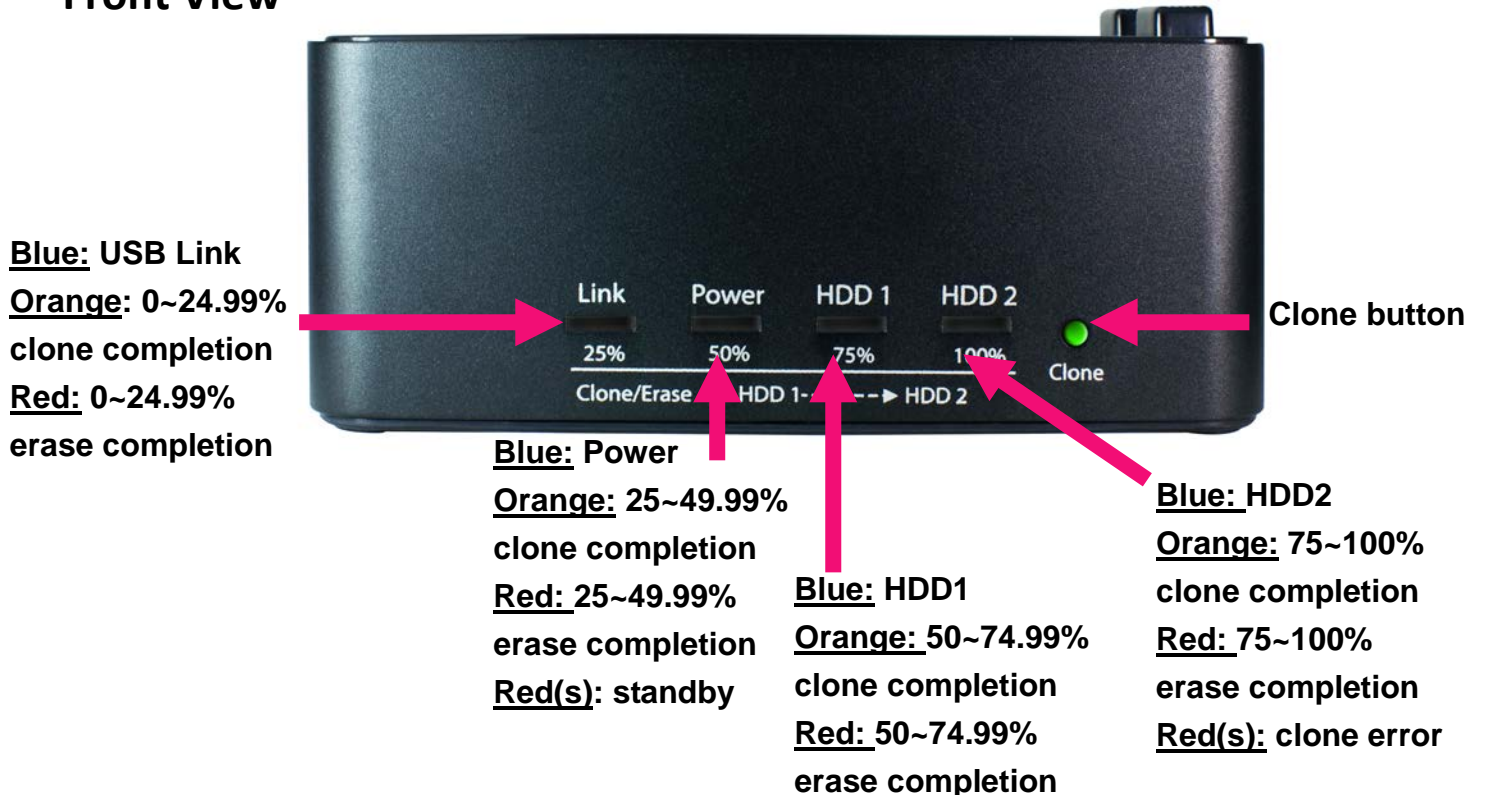


✧ **Includes**

◆ **About the Docking Station**

◆ **HDD Installation Guide**

◆ **HDD Formatting Guide**

◆ **Clone Operation Guide**
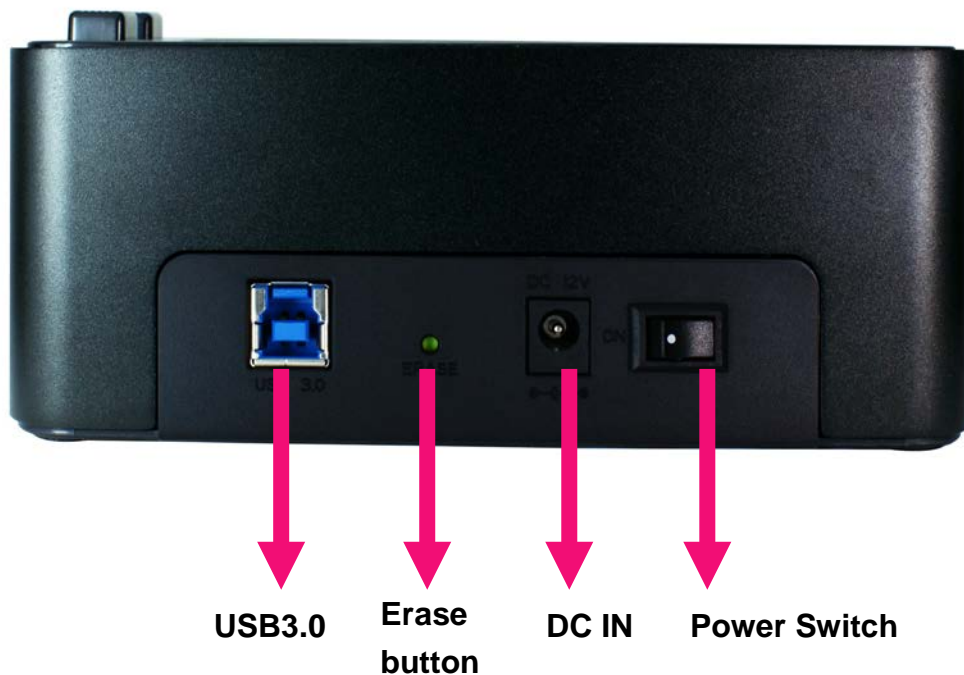
◆ **Erase Operation Guide**

◆ **NOTE**



**ATTENTION**
New HDD Must Be
Formatted Before Use

# About the Docking Station

## Front View

**Blue:** USB Link
**Orange:** 0~24.99%
clone completion
**Red:** 0~24.99%
erase completion

**Blue:** Power
**Orange:** 25~49.99%
clone completion
**Red:** 25~49.99%
erase completion
**Red(s):** standby

**Blue:** HDD1
**Orange:** 50~74.99%
clone completion
**Red:** 50~74.99%
erase completion

**Blue:** HDD2
**Orange:** 75~100%
clone completion
**Red:** 75~100%
erase completion
**Red(s):** clone error

Clone button

**Red(s): only single red LED**

**Notice: More about LED diagnosis addressed at below NOTE session**

## Rear View

USB3.0

Erase
button

DC IN

Power Switch

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# Top View

**HDD 1**

**HDD 2**

HDD 1

HDD 2

**HDD Ejection
Jacks for
HDD1 & HDD2**

# Hard Drive Installation Guide

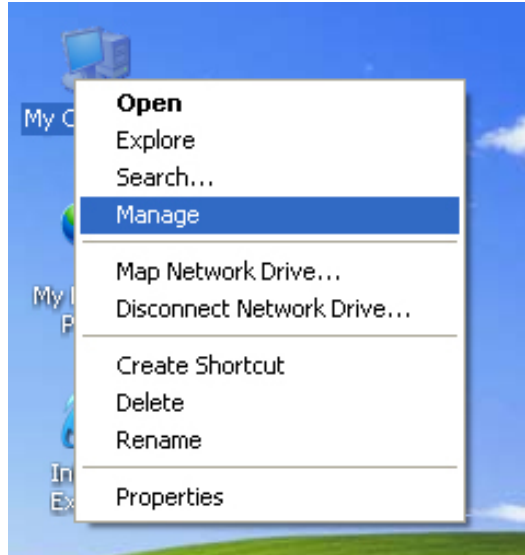**STEP1:**  Target the correct location of SATA connector(s)



**STEP2:**  Install either 2.5" and/or 3.5"HDD/SSD(s) to the docking station and connect to the SATA connector(s) well.

# Hard Drive Formatting Guide

## Partition a volume under Windows® OS

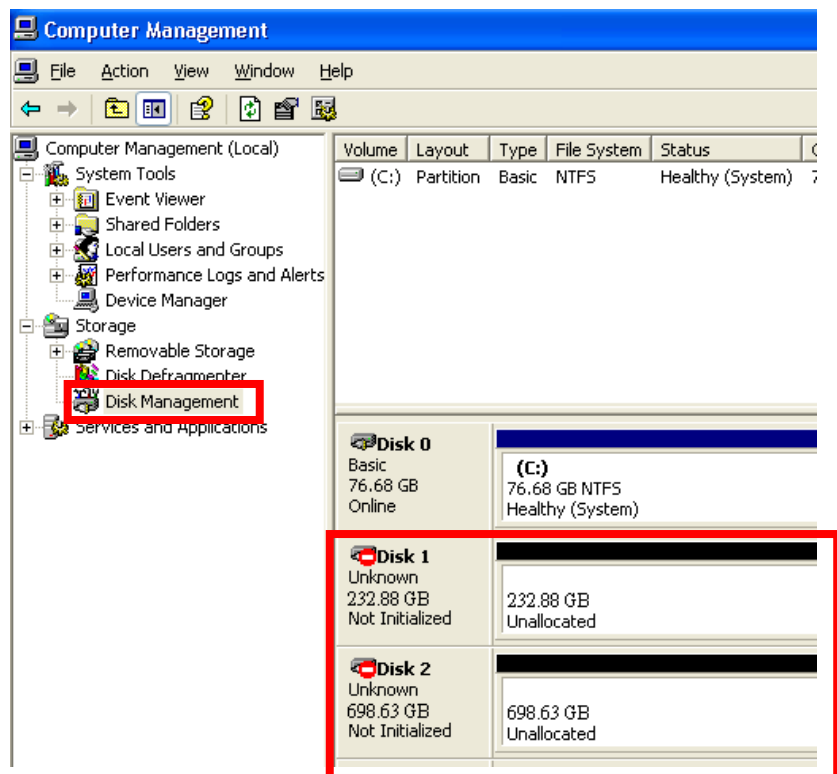**STEP1:** Right-click on "My Computer" icon and select the" Manage" column.



**STEP2:** Select "Disk Management" and you will see your hard drives showing "Unallocated".
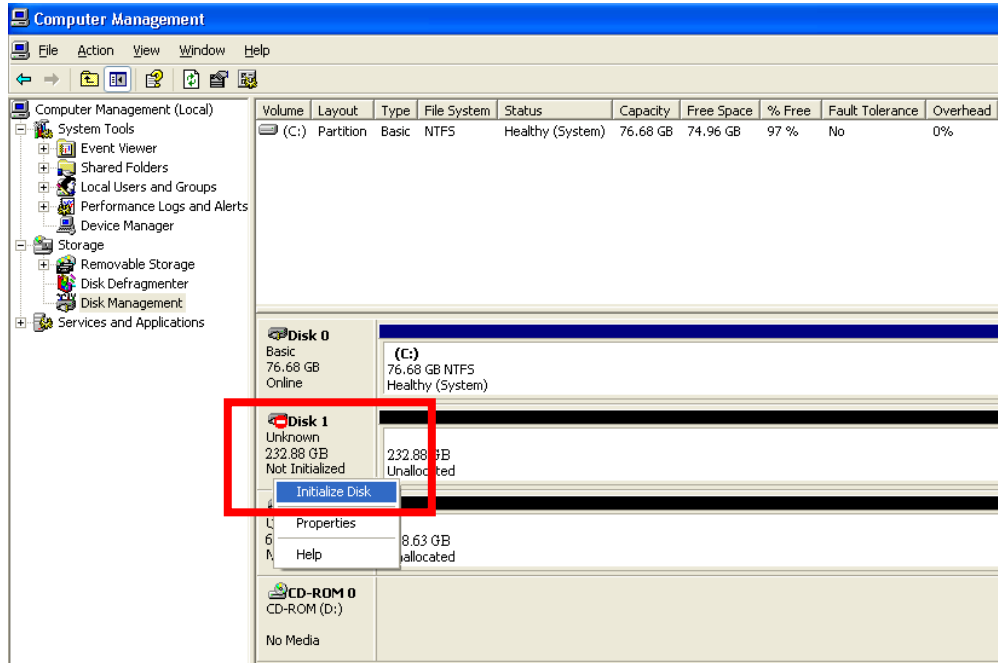
*example：250GB & 750GB hard drives.*

Disk 1: 232.88GB

Disk 2: 698.63GB

**STEP3:** Right-click the circled block and select "Initialize Disk"

**Notice:** When pre-formatted/partitioned HDD(s) is used, you may observe **"Online"** instead of **"Not Initialized"**. In this case, you may skip Step3 and proceed to Step4 directly.



**Notice:** Win 7/8 provides options for "MBR" or "GPT". It is recommended "MBR" is selected if a HDD capacity does not exceed 2TB. "GPT" should be selected if the capacity is over 2TB.
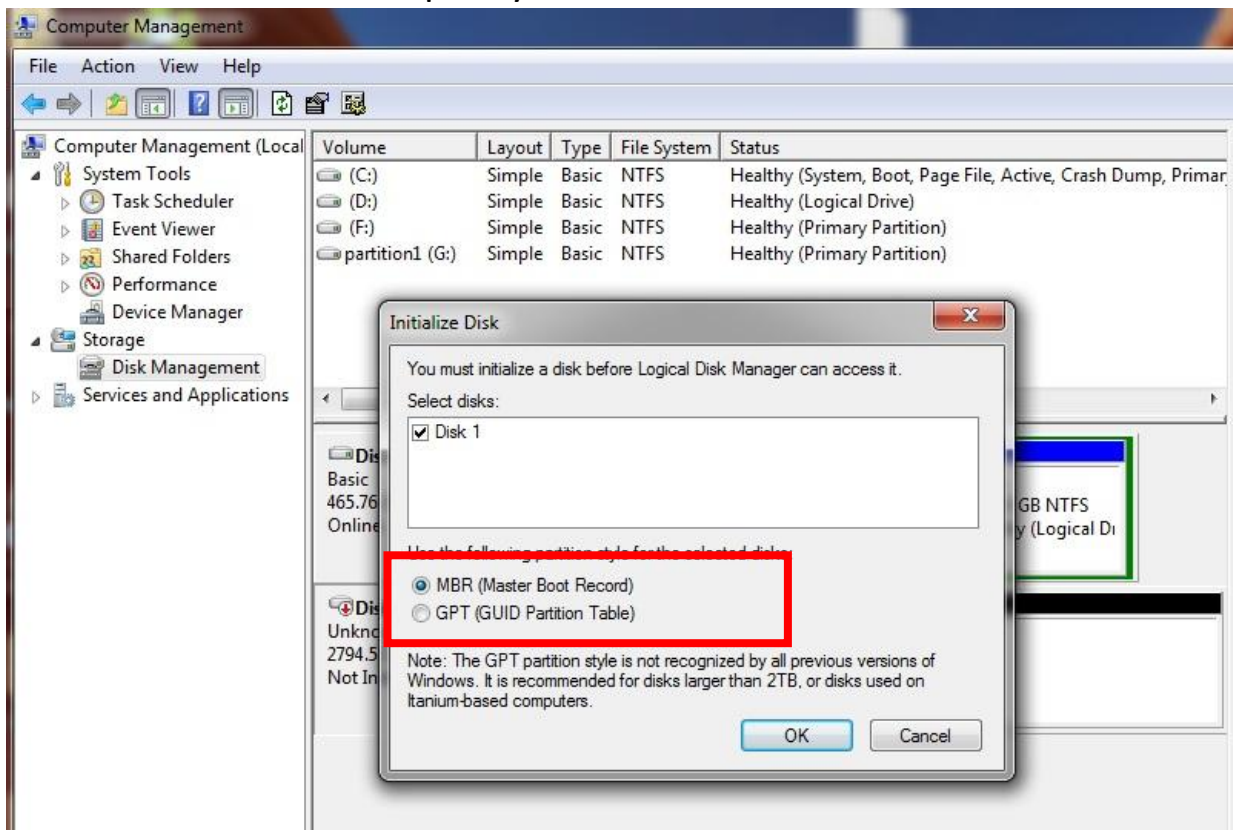
**STEP4:** After the hard drive(s) appears "Online," Right-click the "Unallocated" block and select "New Partition".
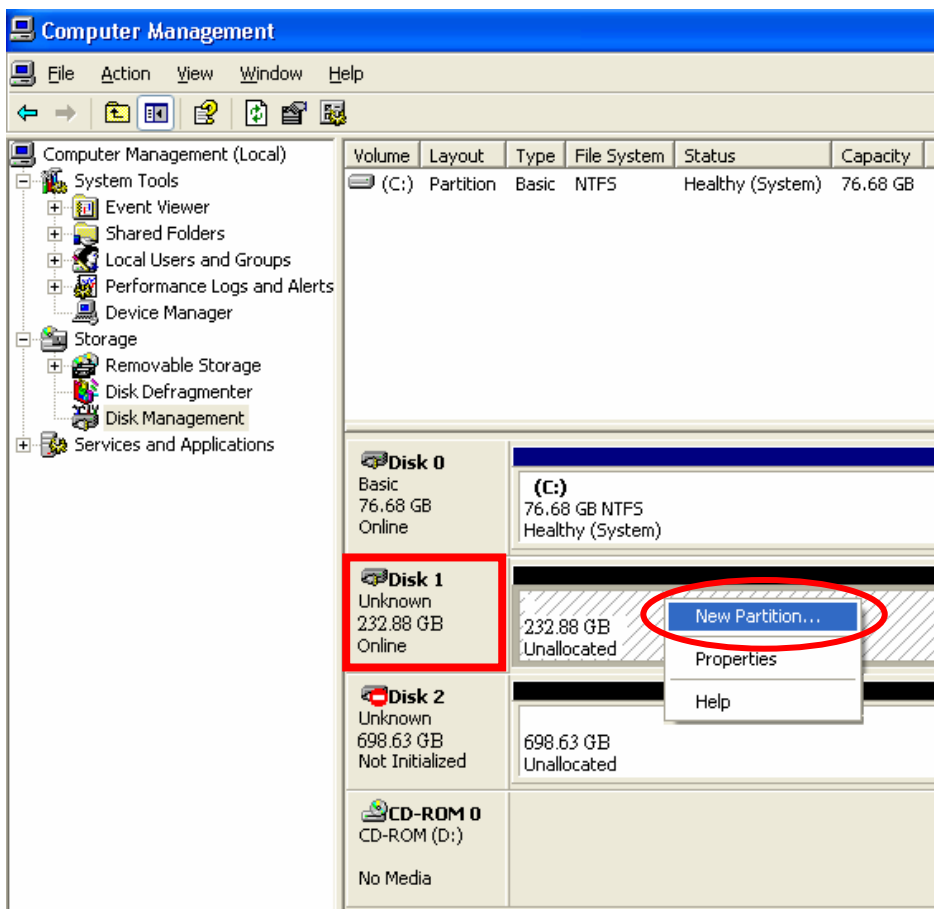


**STEP5:** The "New Partition Wizard" will appear. Follow the instruction of the wizard to complete the partition.
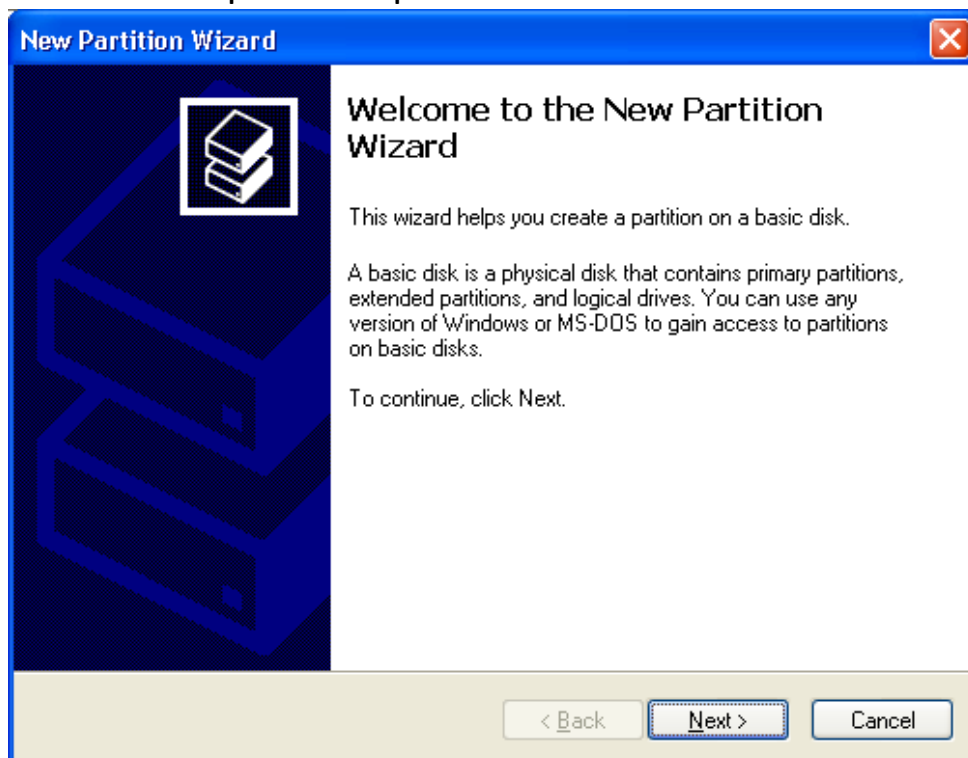
**STEP6:** When new partition is completed, the hard drive will be recognized as a "New Volume". [New Volume drive letter may vary, ie: "New Volume (E:)"]
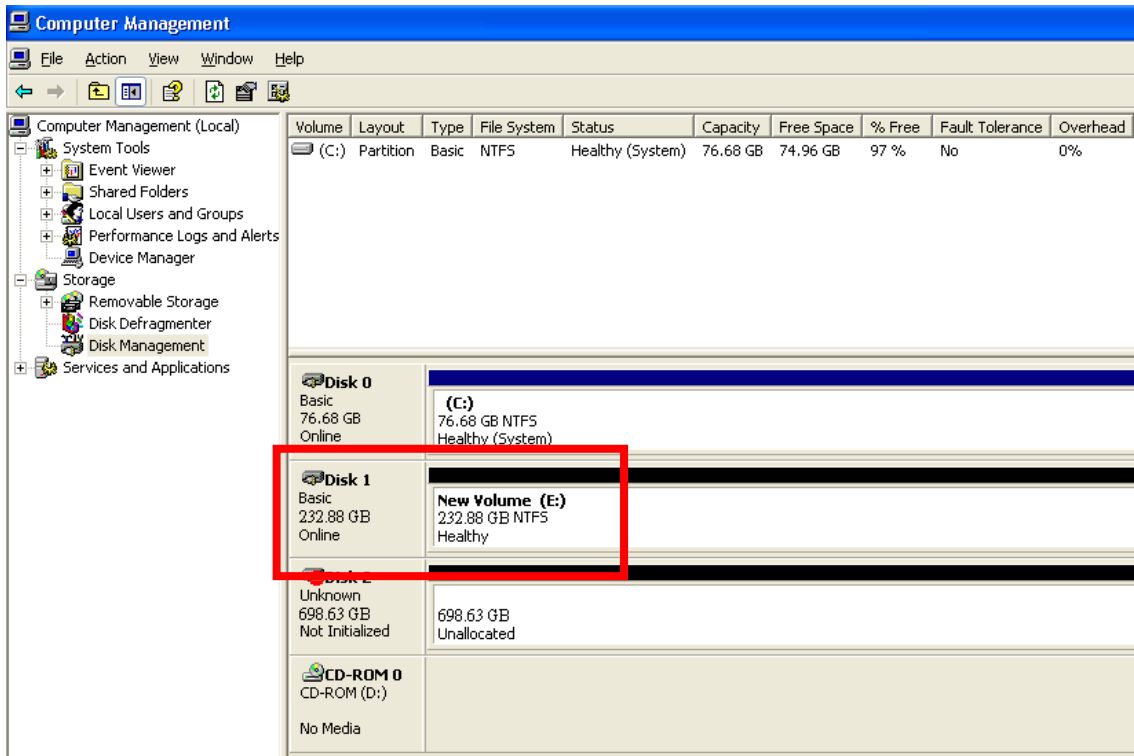


**STEP7:** Format the other hard drive in the same way to see below.
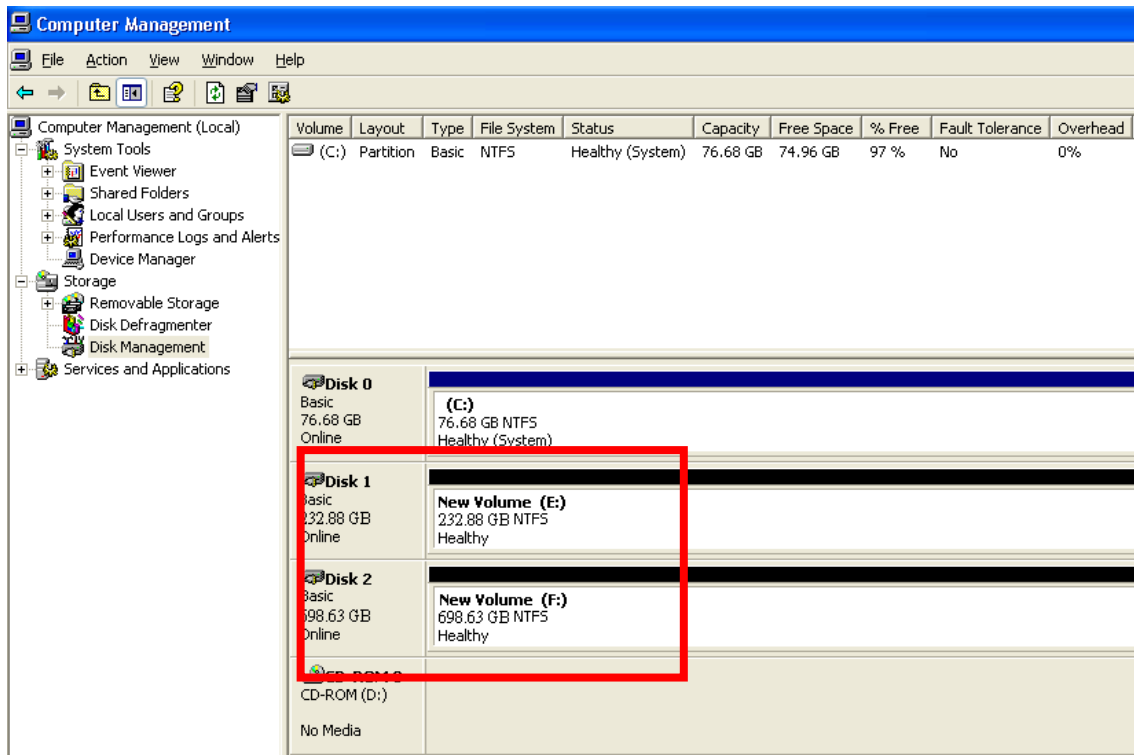
# Partition a volume under Mac® OS

1. Right click the **Go** icon and select **Utilities** from the drop-down window.
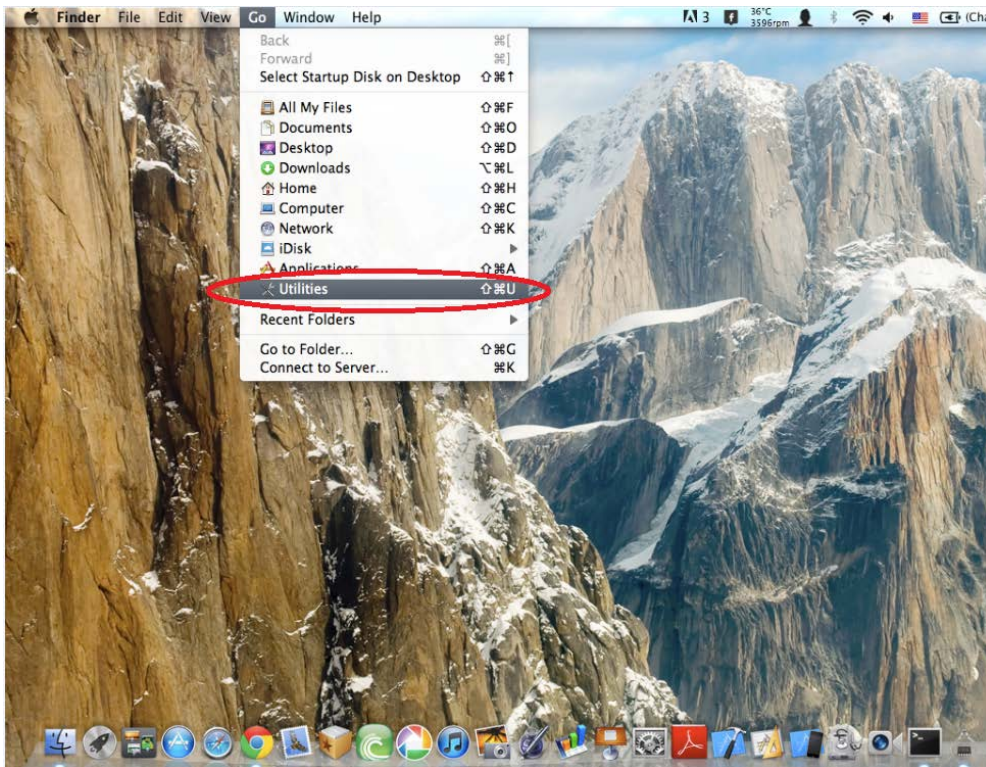


2. Select **Disk Utility**
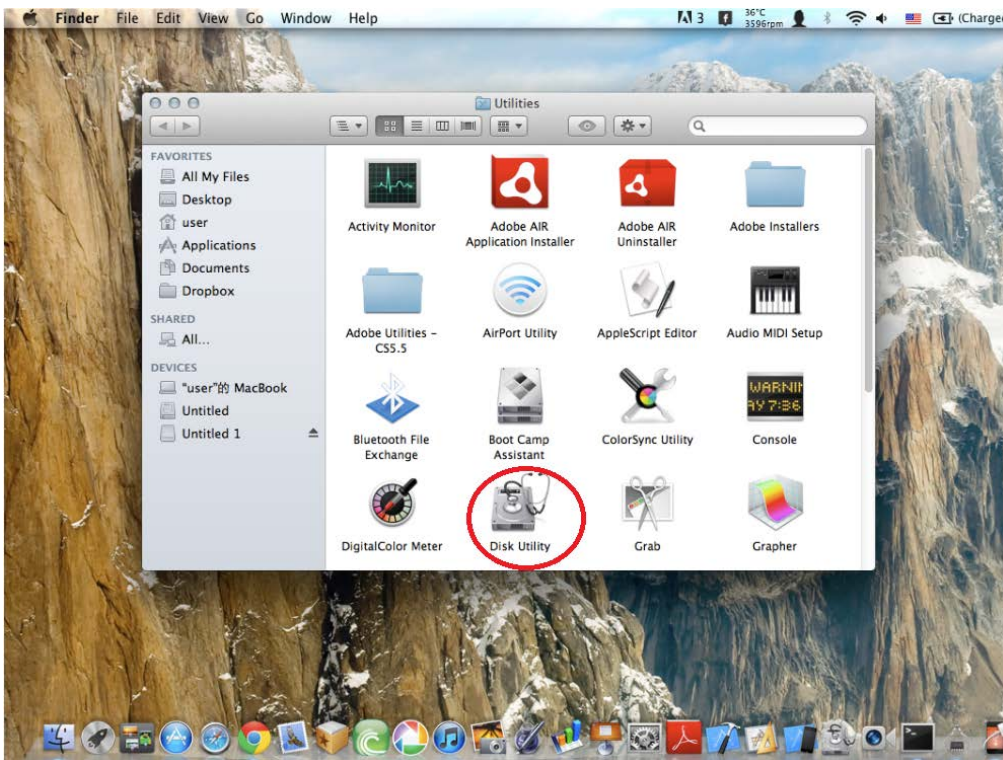
3. Select **Partition** on the top of the window, then select 1 partition from the **Partition Layout.**
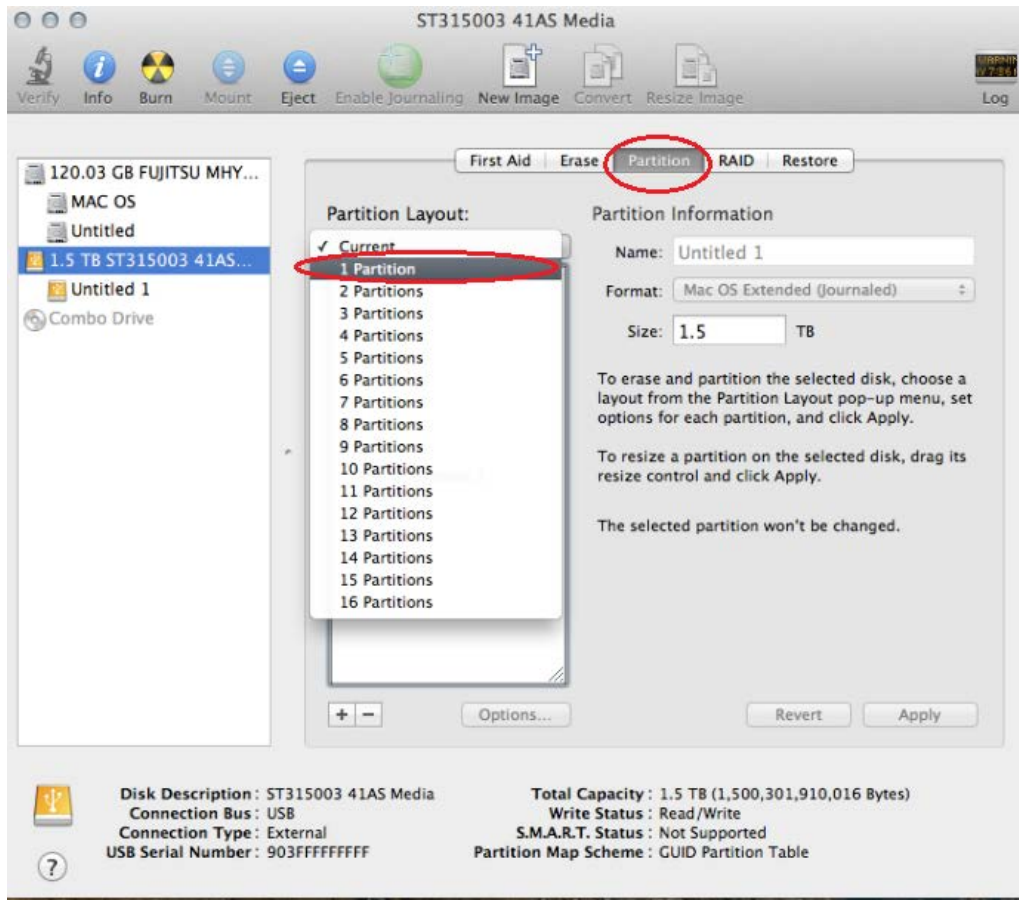


4. Select **Options** at the bottom of the window
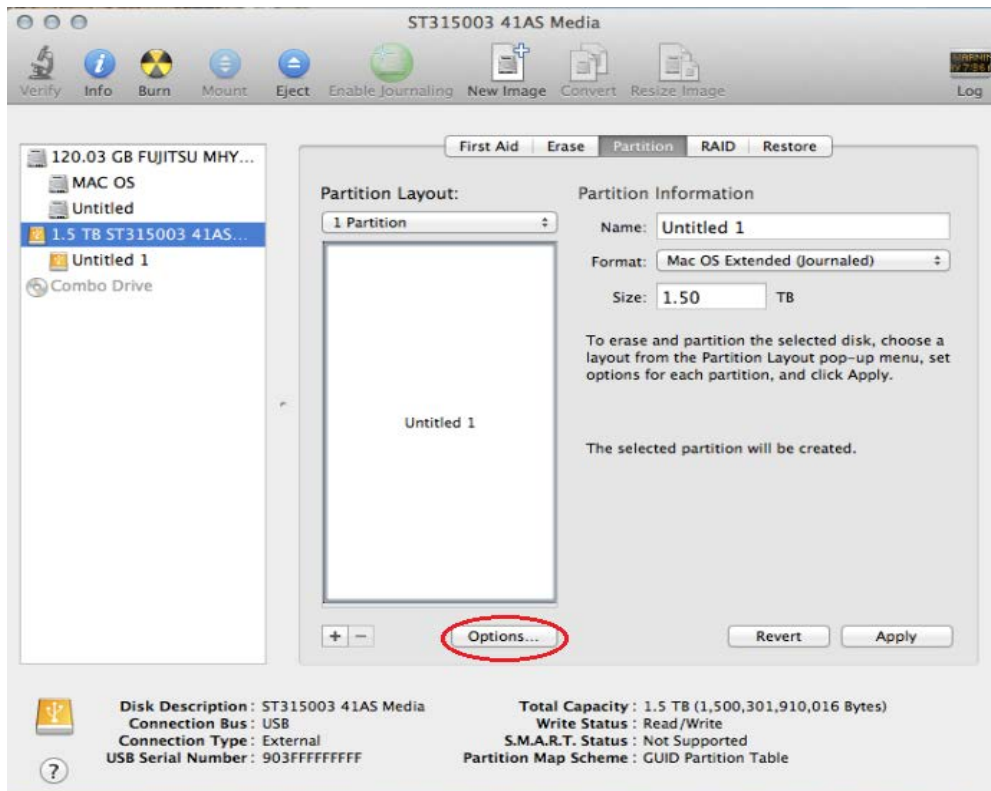
5. Select **GUID Partition Table.** Currently, most Mac computers are Intel based. To enhance the best compatibility, make sure **GUID Partition Table** is selected.

   **Note:** For PPC Mac, please select **Apple Partition Map**
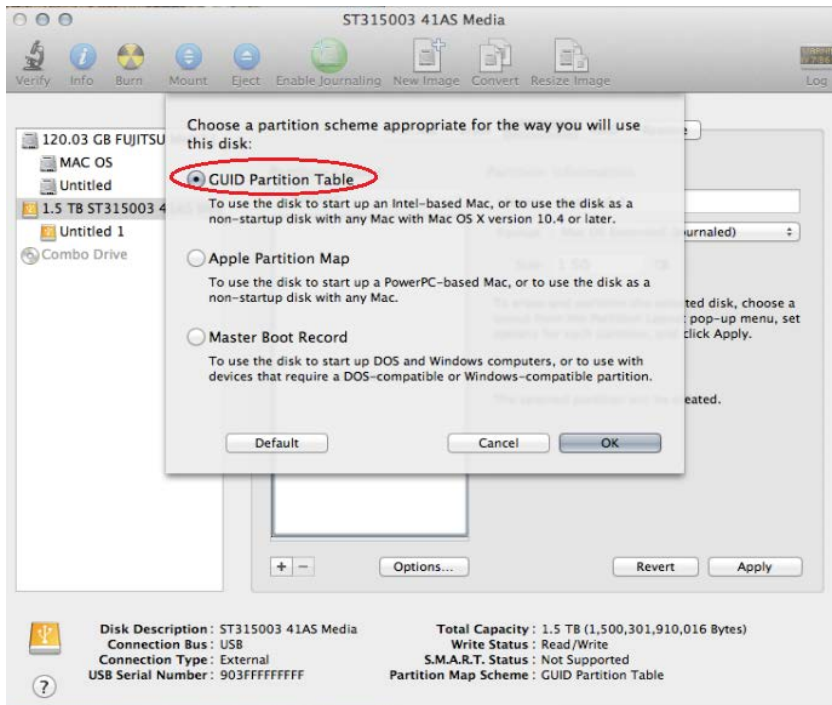


6. Select Apply to finish formatting the hard drive
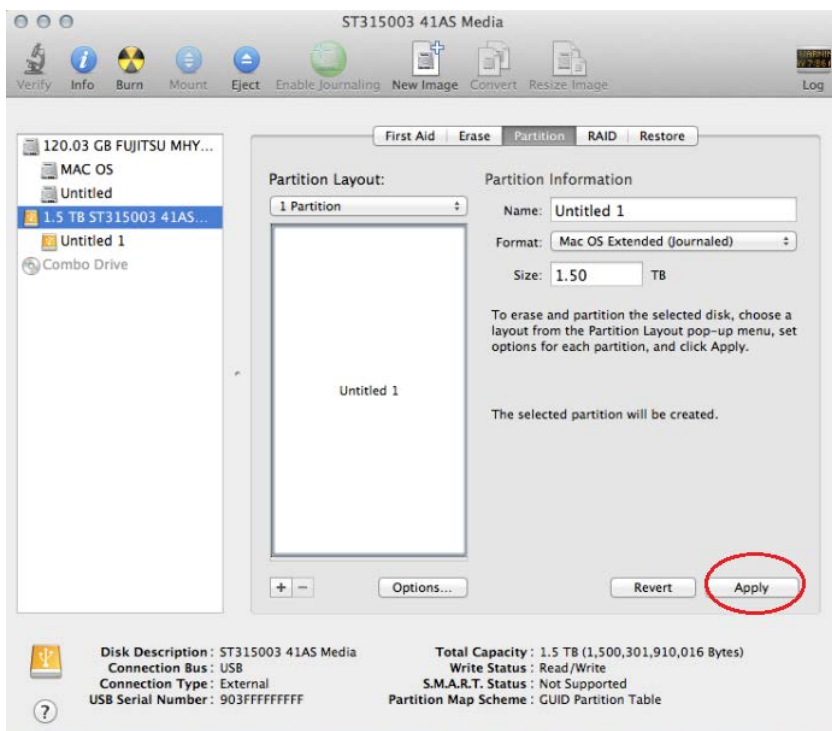


7. Partition the other hard drive in the same way to make both HDDs work under Mac® OS.

# Clone Operation Guide

**STEP1:**   Install at least two HDD/SSDs to the docking station

**NOTICE:** HDD combination can be of either or both 2.5" and/or 3.5" SATA HDDs, so long as the capacity of HDD2 is equal to or bigger than HDD1.



**STEP2:**   Make sure power is turned on & **NO** USB cable is connected.
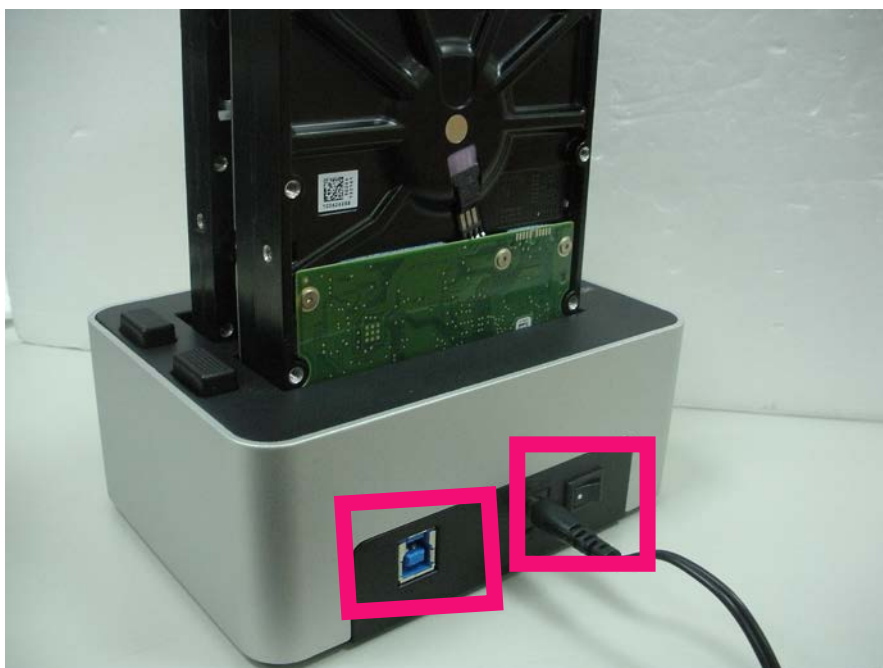
**STEP3:** Press & hold the clone button for at least 4 seconds, and clone operation will start having the RED Power LED disappear and all 4 LEDs turned on in orange.



**STEP4:** Following light-on of all 4 LEDs in orange, LEDs will then proceed to running back & forth indicating the clone progress. Each orange LED refers to every 25% of clone completion. It is only when every 25% of HDD1 is cloned to HDD2 that such LED will remain constantly on, leaving the other LED(s) in running stage. When Clone operation is fully completed, all LEDs will flash regularly in orange color until the device is power cycled.
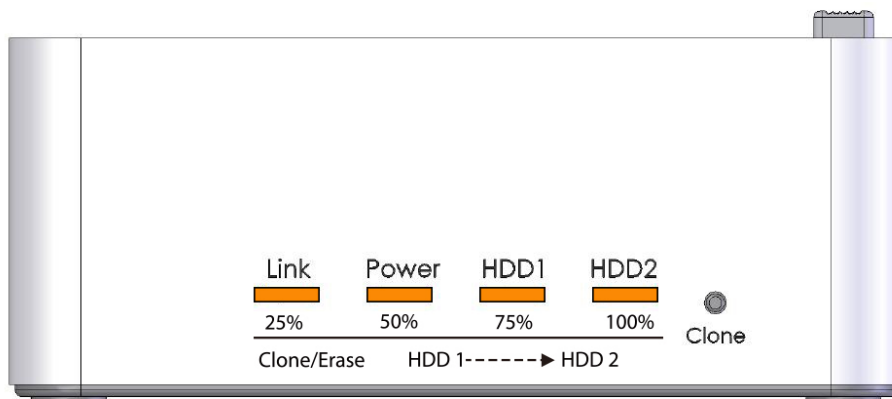


**NOTICE:** Any time clone operation fails, LED on HDD2 flares in red, leaving the other LEDs off. Refer to Section 4.4 & 4.5 in "Normal & Clone Mode Table Chart" under "Diagnosis of LED" in below "NOTE" session for details.

# Erase Operation Guide

**STEP1:**  Follow Step 1 & 2 from Clone Operation Guide
**NOTICE:** Install at least 1 HDD/SSD to the docking station

**STEP2:**  Pin & hold the erase button for at least 4 seconds. During this period, power & HDD2 LED light up in red. Then, operation will start swapping to all 4 LEDs in red.

**STEP3:**  Following light-on of all 4 LEDs in red, LEDs will then proceed to running back & forth indicating the Erase progress. Each red LED refers to every 25% of Erase completion. It is only when every 25% of all HDD(s) is erased that such LED will remain constantly on, leaving the other LED(s) in running stage. When Erase operation is fully completed, all LEDs will flash regularly in red color until the device is power cycled.

**NOTICE:** Percentage of Erase completion attributes to erasing all sectors of the inserted HDD(s). For example, total no. of sectors for two 3TB HDDs is double

of that for one 3TB HDD, thus doubling the time it takes to observe the 4 erase progress LEDs(every 25%), thus complete the operation.

Any time erase operation fails, LED on HDD2 flares in red, leaving the other LEDs off. Refer to Section 7.4 & 7.5 in "Erase Mode Table Chart" under "Diagnosis of LED" in below "NOTE" session for details.

# Note

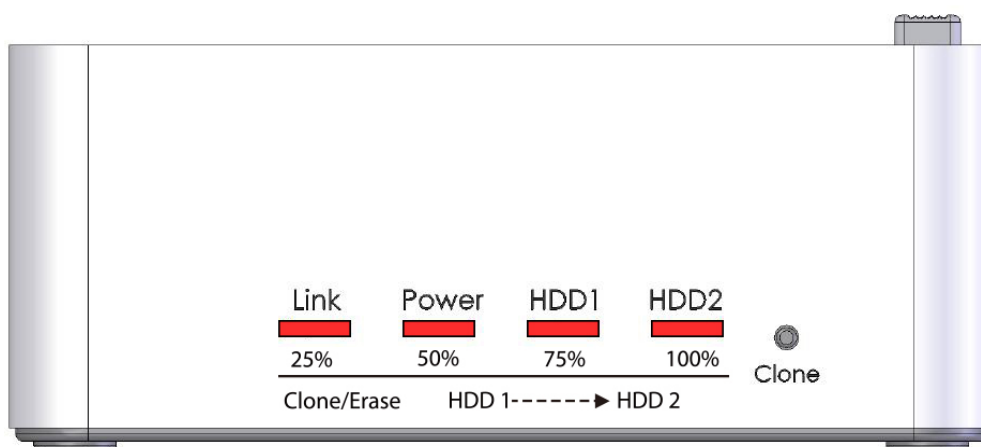## About Clone Function
- The capacity of HDD2 must be equal or bigger than HDD1.
- All data in HDD2 will be deleted once clone operation starts.

If the capacity for HDD2 is bigger than HDD1, capacity remains in HDD2 upon clone completion can be formulated to a new partition. Follow HDD Formatting Guide in the above session for further instructions.

It occurs that some remaining capacity in HDD2 may not be useable if HDD2 is over 2TB while HDD1 is in MBR mode. to overcome this issue, make sure HDD1 is in GPT mode.
- Make sure all HDDs have stopped rotating before Clone button is pressed.
- Power-cycle this device before you proceed with next operation.

## About Erase Function
- Definition of Erase: 1-PASS; writing "0" into each sector of the inserted HDD(s).
- Unlike Clone, Erase proceeds regardless of bad sector(s) with any HDD.
- Inserting one or both HDDs of any capacity is ok.
- All data in HDD1 & HDD2 will be deleted once erase operation starts. However there is 10-second buffer starting from blinking of 4 red LEDs. For users who change their mind about erasing HDDs, just turn of the main power of this device. In this case, original data will be retained.
- Make sure all HDDs have stopped rotating before Erase button is pressed.
- Power-cycle this device before you proceed with next operation.

## About Power synchronization feature
- This device detects PC power status and turn on & off itself automatically. When PC power off and/or hibernates, HDD(s) spin down and all LEDs off, except that Power LED remains constantly on in red until main power is

shut down.

    a. In some OS, when system reaches sleep mode, only monitor and peripheral are turned off while motherboard is powered on. In this case, HDD and LED will be still on.

    b. To enhance smart power synchronization, do not turn off main power of this device.

## About Use of this device

● Upon PC connection, this device operates by Normal mode(port multiplier). 2 separate volumes will be recognized. Either 1 or 2 HDDs can be used at the same time.

● To operate Clone operation, this device requires 2 HDD/SSDs, whereas no restriction of number of HDDs is required on Erase operation.

● Removing HDD during clone or erase operation is forbidden. This will result in failure and stoppage of the operation.

● Using of both of the same HDDs under the same OS after clone operation completes may result in signature conflict, thus having the 2$^{nd}$ HDD unrecognized & forced to "Offline ⓘ" status as below shows. To have both HDDs work under the same OS, right click the circled block and press "Online". Doing so will have this HDD assigned with a new signature, which makes it **NOT** identical to the source HDD(HDD1).

This practice is not recommended for those intending to use the cloned HDD(HDD2) as a system or replacement drive with original HDD.

| Disk 0 | | | | | |
|---|---|---|---|---|---|
| Basic 465.76 GB Online | (D:) 97.66 GB NTFS Healthy (System | (E:) 97.66 GB NTFS Healthy (Primary | (C:) 97.66 GB NTFS Healthy (Boot, P | (G:) 97.66 GB NTFS Healthy (Primary | 75.13 GB Unallocated |

| Disk 1 | |
|---|---|
| Basic 74.53 GB Online | small SATA (H:) 74.53 GB NTFS Healthy (Primary Partition) |

| Disk 2 | | |
|---|---|---|
| Basic 76.69 GB Offline ⓘ Help | Online<br>Properties<br>Help | 2.16 GB Unallocated |

| CD-RO DVD (F:) | |
|---|---|
| No Media | |
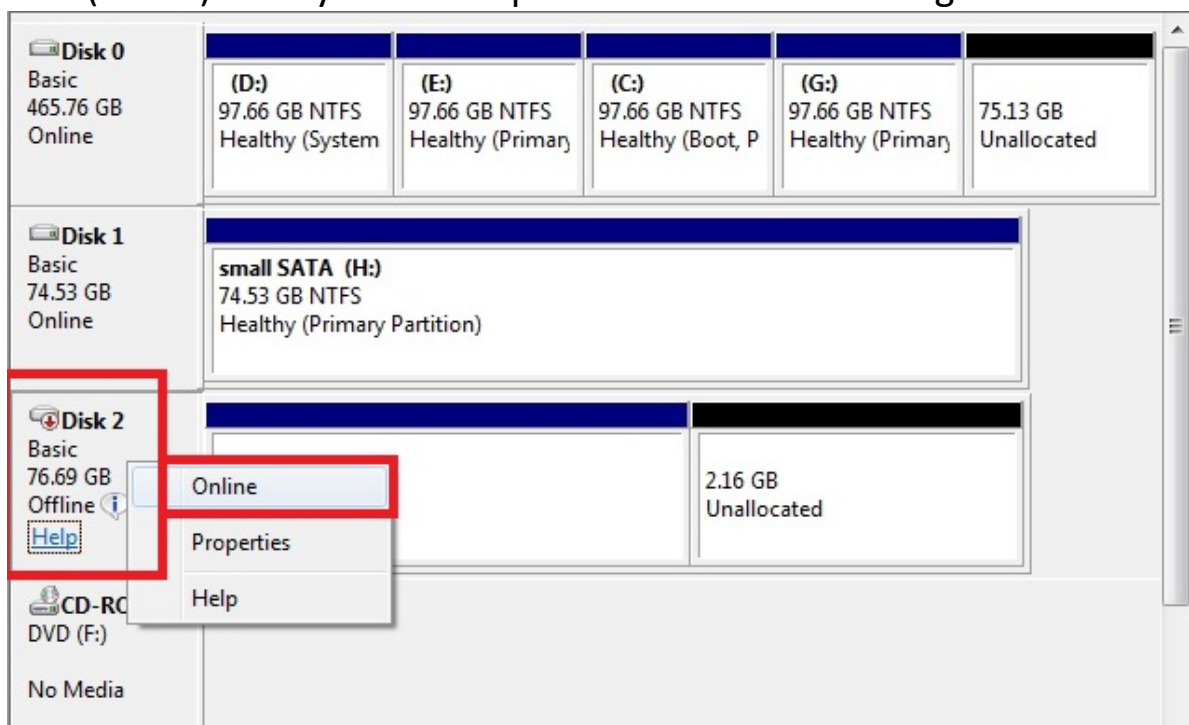
## About HDD Support

● Installing HDD(s) over 2TB is possible. However, make sure to run this device under Vista®, Win7® & 8® OS and activate GPT mode when formatting this device to have it work correctly.

● This device is designed to host 2.5"(9.5mm) and 3.5"(26mm) SATA HDD/SSDs. Support for other HDD/SSDs are not guaranteed.

## About USB Connectivity

● The equipped USB3.0 port is downward compatible with USB2.0 PC/notebook by simply plug and play.

## About SATA Connectivity

● This device support HDD hot swapping. It is imperative that below are fully acknowledged before this is practiced.

    a. Hot swapping while HDD(s) is working may result in wreckage of such HDD, ie: disk plate scratched, leading to HDD malfunctioning

    b. Removing any HDD will result in re-detection of both or connected HDD by OS. In the meantime, file transferring in progress will be forced to stoppage, leading to file(s) corruption.

In conclusion, to prevent above catastrophe, it is strongly recommended that HDD swapping be practiced when the device is powered off & HDD(s) have come to full stop.

## About HDD sector support: 512byte vs. 4KB

● This device only supports HDDs of 512byte sectors. HDDs that use 4KB sector(the advanced format) will be asked for formatting before it can come to operation. All data will be lost. Make sure you back up all data before using 4KB sector HDD with this device.

## Diagnosis of LEDs

● This device consists of 4 LEDs
● Below charts describes LED activity under various conditions.

R: Read

W: Write

S3: PC into sleep mode

S4: PC into hibernation mode

## Normal & Clone Mode Table Chart

| operation | Configurations | Operation | | | | | | Activities | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | HDD status | | LED Status | | | |
| | | PWR | USB | HDD1 | HDD2 | PC | Clone button | HDD1 | HDD2 | Link | Power | HDD1 | HDD2 |
| 1 | Power OFF | | | | | | | | | | | | |
| 2 | Power ON | ● | | | | | | | | | Red | | |
| 3 | Normal mode– No USB cable connected | | | | | | | | | | | | |
| 3.1 | No USB connected HDD1 inserted | ● | | ● | | | | OFF | | | Red | | |
| 3.2 | No USB connected HDD2 inserted | ● | | | ● | | | | OFF | | Red | | |
| 3.3 | No USB connected Both HDDs inserted | ● | | ● | ● | | | OFF | OFF | | Red | | |
| 4 | Clone operation-No USB cable connected | | | | | | | | | | | | |
| 4.1 | Both HDDs inserted Clone started | ● | | ● | ● | | ● | ON | ON | **25%** Orange | **50%** Orange | **75%** Orange | **100% / Clone Error** Orange |
| 4.2 | Clone Operation In progress | ● | | R● | W● | | | ON | ON | Orange running back & forth | | | |
| 4.3 | Clone Operation Complete | ● | | ● | ● | | | OFF | OFF | Orange flash | Orange flash | Orange flash | Orange flash |
| 4.4 | Clone Operation Cannot start Or HDD1 > HDD2 | ● | | ● | ● | | | OFF | OFF | | | | Red flash |
| 4.5 | Clone Operation Failed | ● | | ● | ● | | | OFF | OFF | | | | Red |
| 5 | Normal mode- USB cable connected | | | | | | | | | | | | |
| 5.1 | USB connected No HDD | ● | ● | | | ● | | | | Blue | Blue | | |
| 5.2 | USB connected HDD1 inserted | ● | ● | R/W ● | | ● | | ON | | Blue | Blue | Blue flash | |
| 5.3 | USB connected HDD2 inserted | ● | ● | | R/W ● | ● | | | ON | Blue | Blue | | Blue flash |
| 5.4 | USB connected HDD1/2 inserted | ● | ● | R/W ● | R/W ● | ● | | ON | ON | Blue | Blue | Blue flash | Blue flash |

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| | | PWR | USB | HDD1 | HDD2 | PC | Erase button | HDD1 | HDD2 | Link | Power | HDD1 | HDD2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Power synchronization mode -Power saving | | | | | | | | | | | | |
| 6.1 | PC enters Standby, Hibernate mode | ● | ● | ● | ● | S3,S4 | | OFF | OFF | | Red | | |
| 6.2 | PC Power OFF | ● | ● | ● | ● | OFF | | OFF | OFF | | Red | | |
| 6.3 | USB Cable Removed | ● | | ● | ● | ● | | OFF | OFF | | Red | | |

## Erase Mode Table Chart

| Configurations \ operation | | Operation | | | | | | Activities | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | **HDD status** | | **LED Status** | | | |
| | | PWR | USB | HDD1 | HDD2 | PC | Erase button | HDD1 | HDD2 | Link | Power | HDD1 | HDD2 |
| 7 | Erase operation-No USB cable connected | | | | | | | | | | | | |
| 7.1 | Both HDDs inserted Erase started | ● | | ● | ● | | ● | ON | ON | **25%** Red | **50%** Red | **75%** Red | **100% / Clone Error** Red |
| 7.2 | Erase Operation In progress | ● | | w● | w● | | | ON | ON | Red running back & forth | | | |
| 7.3 | Erase Operation Complete | ● | | ● | ● | | | OFF | OFF | Red flash | Red Flash | Red flash | Red flash |
| 7.4 | Erase Operation Cannot start | ● | | ● | ● | | | OFF | OFF | | | | Red flash |
| 7.5 | Erase Operation Failed | ● | | ● | ● | | | OFF | OFF | | | | Red |