IB-RD3640SU3E2/SU3

IB-3640SU3

CONTENT

1. INTRODUCTION

1.1 GENERAL INFORMATION

1.1.1 Usage cautions

User should not modify this device. The environmental temperature should be within +5℃ ~ +35℃.
Note: Port multiplier at host computer needed, if connected via eSATA

1.1.2 Power

Power voltage: DC 12 V.

When using this device, please connect the supplied AC adapter or AC adapter cable to the power jack of device. When placing the adapter cable, make sure it cannot get damaged or be subject to pressure. To reduce the risk of electric shock, unplug the adapter first before cleaning it. Never connect the adapter to the device in a humid or dusty area. Do not replace the adapter or cable's wire or connector.

1.1.3 Radio interference/compatibility

- If not properly shielded, almost all electronic devices will get radio interference. Under some conditions, your player might get interference.

- The design of this device has followed the FCC/CE standard, and has followed the following rules:

(1) This device may not cause harmful interference;

(2) This device could accept some interference received including interference that may cause undesired operation.

1.1.4 Repair

If the device has a problem, you should take it to an appointed repair center and let the specialists do the repair, never repair the player yourself, you might damage the device or endanger yourself or your data.

1.1.5 Disposing of the player

When you dispose of the device, be sure to dispose it appropriately. Some countries may regulate disposal of electrical device, please consult with your local authority.

1.1.6 Others

When using this device, please do not let the device come into contact with water or other liquid, if water is accidentally spilled on the device, please use a dry cloth to absorb the spillage.

Do not let the device come into contact with water or other liquid.

Do not disassemble the device; repair the device or change the design of the device, any damage done will not be included in the repair policy.

Avoid hitting the device with hard object, avoid shaking the player, and stay away from magnetic fields.

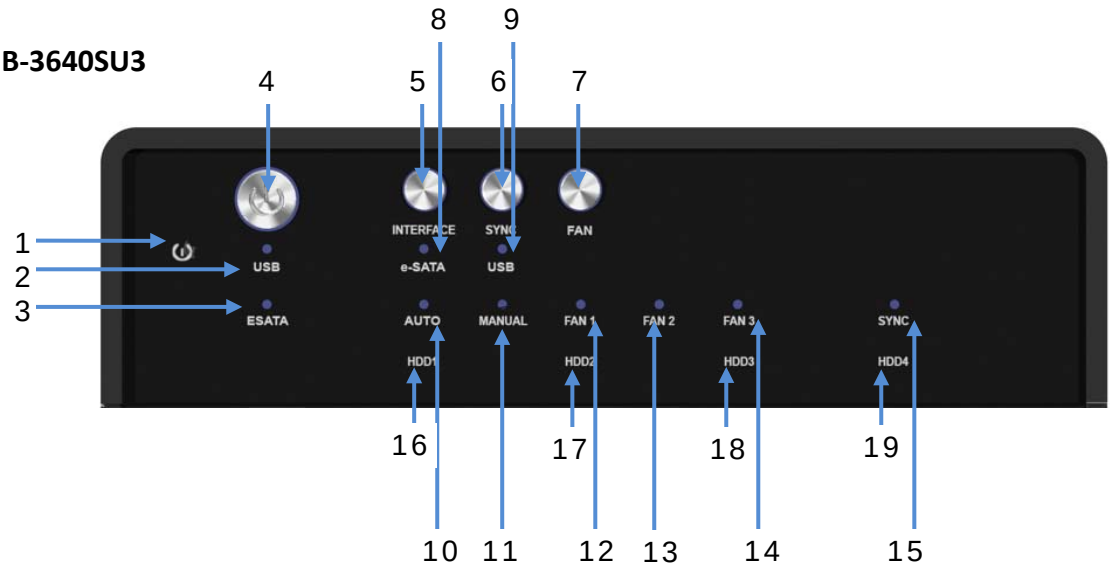
During electrostatic discharge and the strong electromagnetic field, the product will malfunction, and then unplug the power cable and the product will return to normal performance next time it is powered on.

Note: All the information contained in this manual was correct at the time of publication. However, as our engineers are always updating and improving the product, your device's software may have a slightly different appearance or modified functionality than presented in this manual.

2. HARDWARE IB-3640 SERIES

2.1 FRONT VIEW LED INDICATION

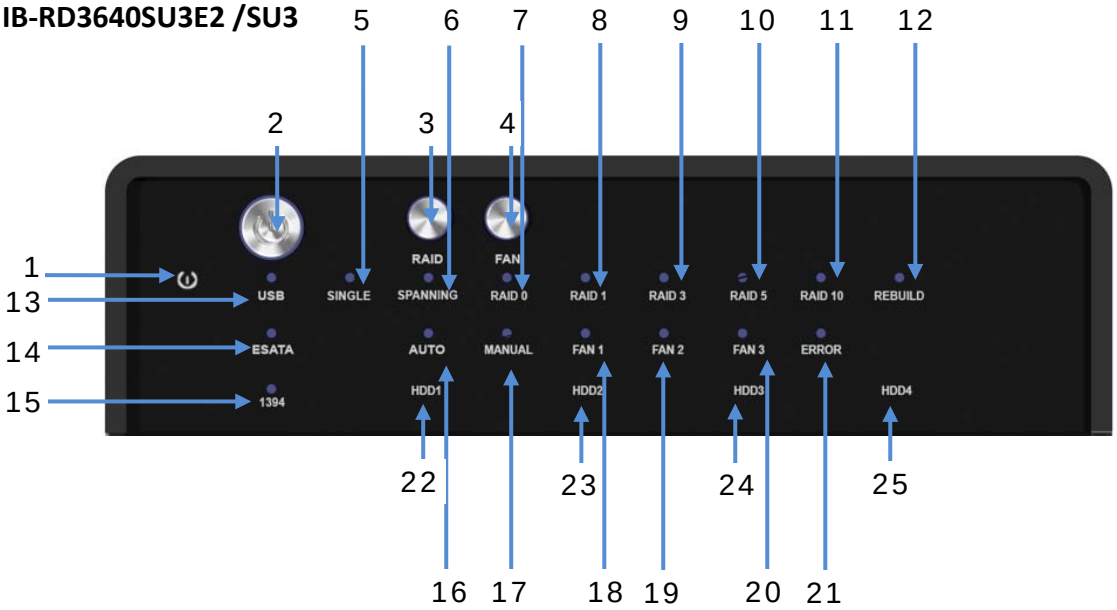
IB-3640SU3



1. Blue	Power on
Orange	Sleep mode
2. USB	in use / access
3. eSATA	in use / access
4. Power button	It needs to be pressed and **held** for 3 seconds to power off.
	Remark! This design prevents accidental power off.
5. Interface button	Function: Off
	Function: LED blue – power off with PC
	LED yellow – power off & power on with PC
7. Fan button	Controls auto & manual modes and fan speed from level 1 to level 3.
8. eSATA	link interface option
9. USB 3.0	link interface option
10. Smart Fan	automatic mode
11. Smart Fan	manual mode
12. Fan speed	level 1 below 45 °C 1,200rpm ~ 1,800rpm
13. Fan speed	level 2 45 °c · 54 °c 1,800rpm — 2,500rpm

14. Fan speed		level 3 higher man ss rc 2,500rpm ~ 3,500rpm
16.-19.		HDD1 / HDD2 / HDD3 / HDD4
	blue	active
	purple	access

IB-RD3640SU3E2 /SU3

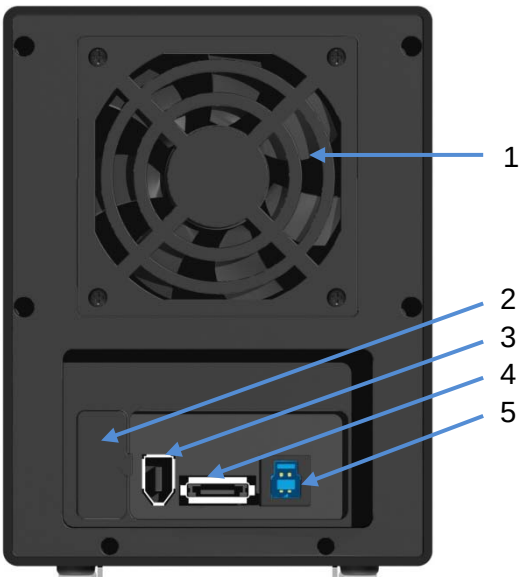


1. Blue	Power on
Orange	Sleep mode
2. Power button	It needs to be pressed and **held** for 3 seconds to power off.
	Remark! This design prevents accidental power off.
3. Mode	RAID mode button needs to be pressed and held for 3 seconds to switch the device's raid mode.
	Remark! This design will prevent accidental execution of this function.
4. Fan button	Controls auto & manual modes and fan speed from level 1 to level 3.
5. Single mode	
6. RAID 0	Spanning Mode / BIG
7. RAID 0	Striping Mode
8. RAID 1	
9. RAID 3	
10. RAID 5	
11. RAID 10	
12. Rebuild	
13. USB	in use / access
14. eSATA	in use / access
15. FireWire	in use / access (SU3E2 version only)
16. Smart Fan	automatic mode
17. Smart Fan	manual mode
18. Fan speed	level 1 below 45 °C 1,200rpm ~ 1,800rpm
19. Fan speed	level 2 45 °c · 54 °c 1,800rpm — 2,500rpm
20. Fan speed	level 3 higher man ss rc 2,500rpm ~ 3,500rpm

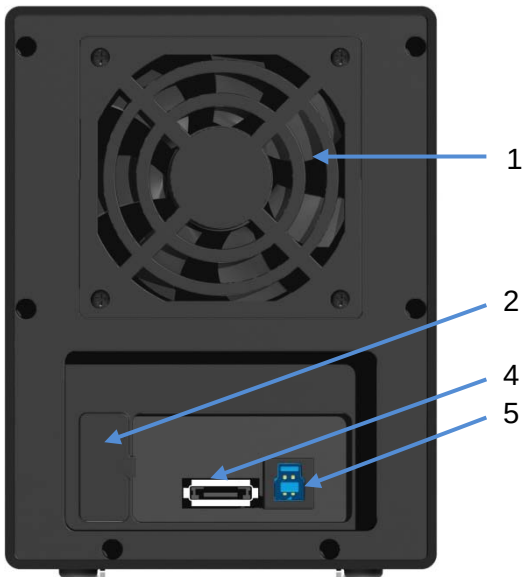
21. HDD error		When any of HDD1 to HDD4 has an error, HDD error is on.
		Remark! LED doesn't function in Single mode.
22.-25.		HDD1 /HDD2 / HDD3 / HDD4
	Blue	active
	Purple	access
	Red	rebuild

2.2 REAR VIEW

IB-RD3640SU3E2



IB-RD3640SU3 / IB-3640SU3



1. Fan
2. RAID Mode confirmation button (behind the plastic cover)
3. FireWire a port
4. eSATA port

Note: Port multiplier at host computer needed, if connected via eSATA

5. USB 3.0 port

2.3 SIDE VIEW

IB-RD3640SU3E2

IB-RD3640SU3 / IB-3640SU3

1. 2x FireWire b port
2. DC Power jack

3. HDD INSTALLATION

- Please use the provided screws to secure the handles to the 4 HDDs.

- Open the front door.

- Press down the tabs (**1**) of metal frame to unlock and remove it.

- Take the transport paper board out of the device.

- Slide the 4 HDDs into the guide rails and push them downwards until it locks into the connector in order from up to down.

- Reinstall the metal frame that was removed in step 3. Please make sure the bottom of the frame stays inside the track (**2**) before closing the front door.

- Connect the power adapter and choose one cable to connect to your computer (depends on version) and power on the device.

- When connected and powered on, the System LED will turn blue; the HDD LED lights will turn blue. If there are HDDs, the HDD LED will stay blue. If the HDDs are accessed the corresponding HDD LEDs will flash blue.

IB-3640SU3

- Power on the product and complete the setting inside ***Disk management*** of your computer system.

4. SETTING/CHANGING THE RAID MODE

IB-RD3640SU3E2 /SU3

REMARK: Default setting is RAID 5 mode.

- For RAID mode setup, users need to press and **HOLD** the RAID button (**1**) at the front for 3 seconds until the LEDs are flashing.
  Press again for changing the RAID mode.

- After selecting the RAID mode you want, press and hold the confirmation button at the rear panel (behind the plastic cover) (**2**) until the device shuts down.

- Power on the product again and complete the setting inside ***Disk management*** of your computer system.

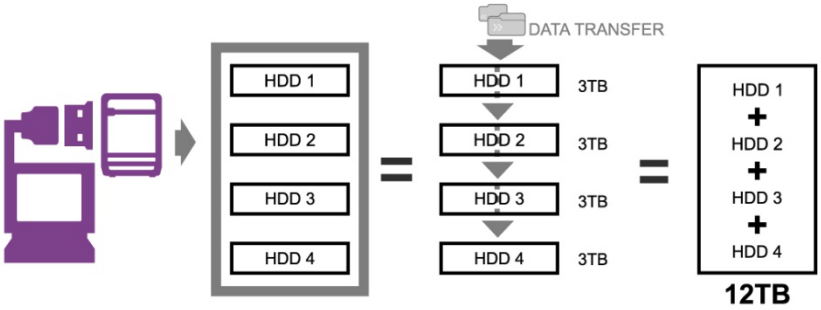
RAID 0

Spanning
(BIG) JBOD

+ 0 SPN

Spanning concatenates multiple hard drives as a single large volume; resulting in a seamless expansion of virtual volumes beyond the physical limitations of separately connected hard drives. The data are written frim HDD1 to HDD4.

- Raid 0, JBOD Spanning Only , Non-Single JBOD

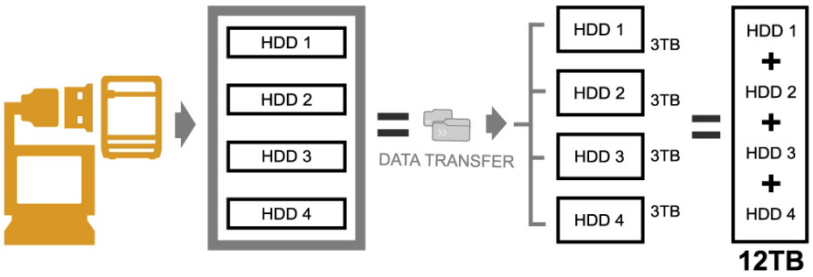


RAID 0

Striping

+ 0 STR

Striping is a method of concatenating multiple hard drives into one logical storage unit. It is the automated process of writing data across .multiple drives simultaneously. Striping is used to increase the performance of disk reads. The multiple hard drives will write data in “column” effect. If one drive in a striped set fails, all of the data in the stripe set is lost.

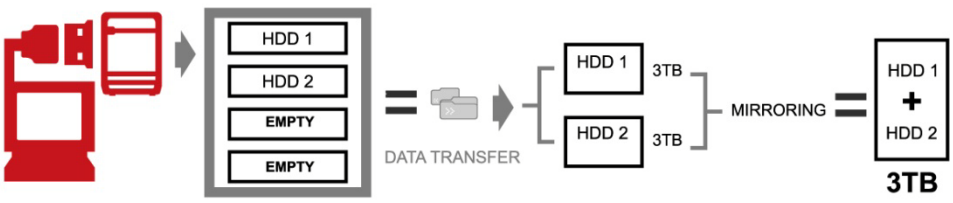


RAID 1

Mirroring

+ 1

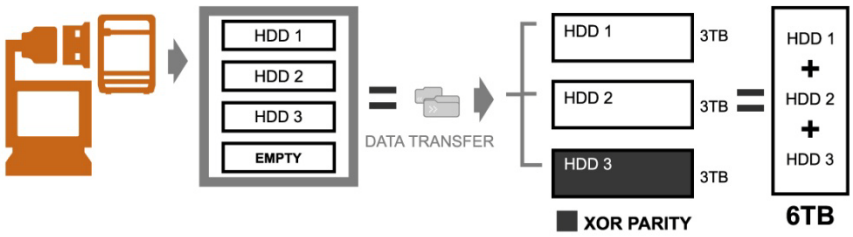
Mirroring is the automated process of writing data to multiple drives simultaneously. Mirroring is used to provide redundancy. If one drive fails, the redundant drive(s) will continue to store the data and provide access to it.
The failed drive can then be replaced
and the drive set can be rebuild.



RAID 3

Striped set
with dedicated parity

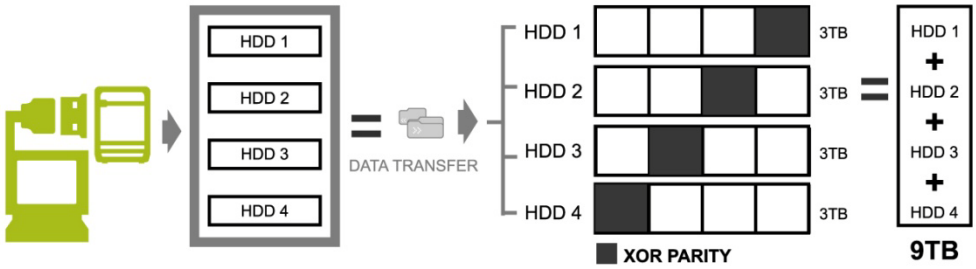
This mechanism provides an improved performance and fault tolerance similar to RAID 5 but with a dedicated parity disk rather than rotated parity stripes. The single parity disk is a bottle-neck for writing since every write requires updating the parity data. One minor benefit is the dedicated parity disk allows the parity drive to fail and operation will continue without parity or performance penalty.



RAID 5

Striped set
with distributed parity

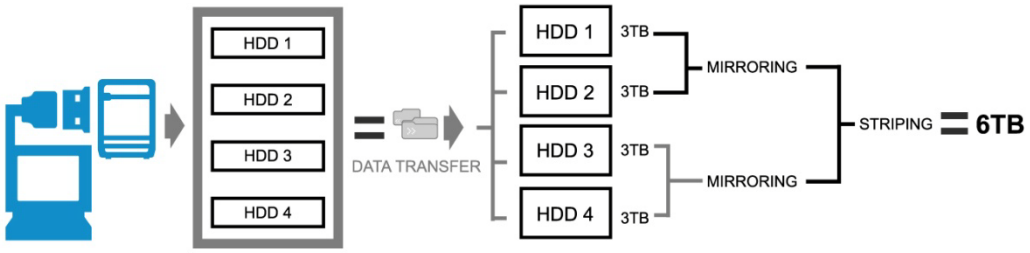
Distributed parity requires all drives but one to be present to operate; drive failure requires replacement, but the array is not destroyed by a single drive failure. Upon drive failure, any subsequent reads can be calculated from the distributed parity such that the drive failure is masked from the end user. The array will have data loss in the event of a second drive failure and is vulnerable until the data that was on the failed drive is rebuilt onto a replacement drive.



RAID 10

Mirroring + Striping

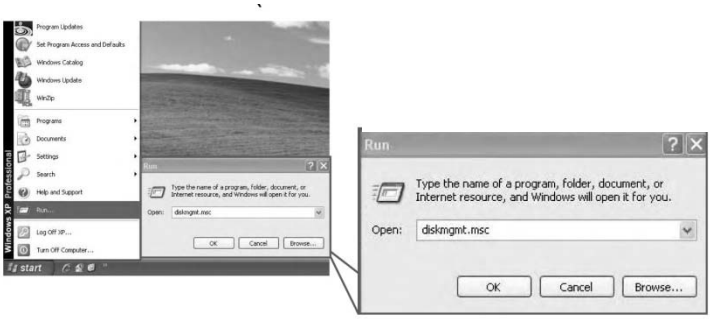
RAID 10 is mirrored(Raid 1) sets in a striped(Raid 0) set .



5. DISK INITIALISATION

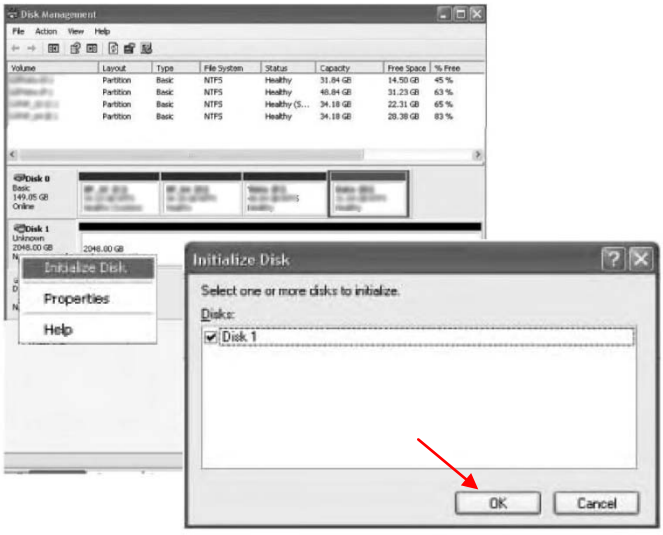
5.1 WINDOWS 2000 / XP (32/64 BIT)

If the HDD is uninitialized, you may have to initialize it by doing steps as followed:
- At first click "Start", “Execute" at your PC and key in "diskmgmt. msc".
- After that please press "RETURN" key.

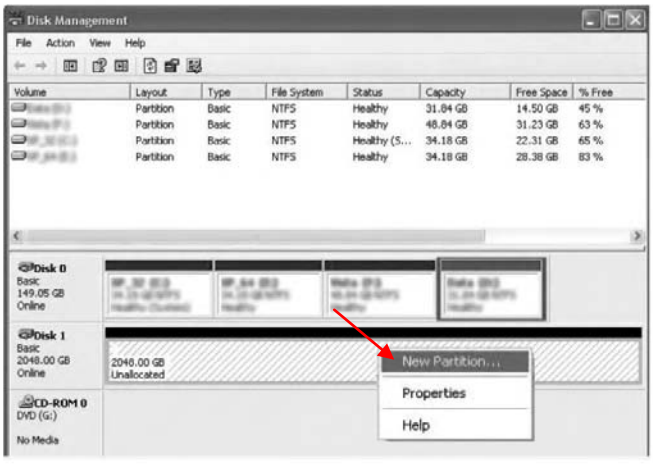


Remark: Windows 2000 / XP (32 /62 bit) only support MBR.
Under Windows 2000 / XP, the HDD total volume shall not be more than 2 TB, otherwise the device won‘t be recognized.

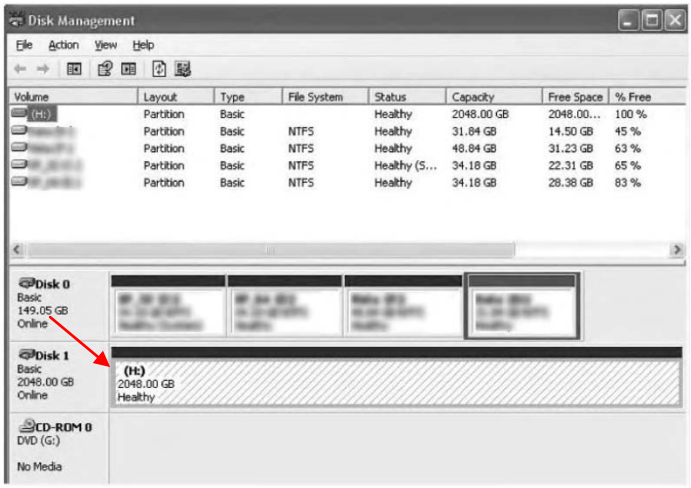
1. Start disk initialization.



2. Create new partition and format disk.

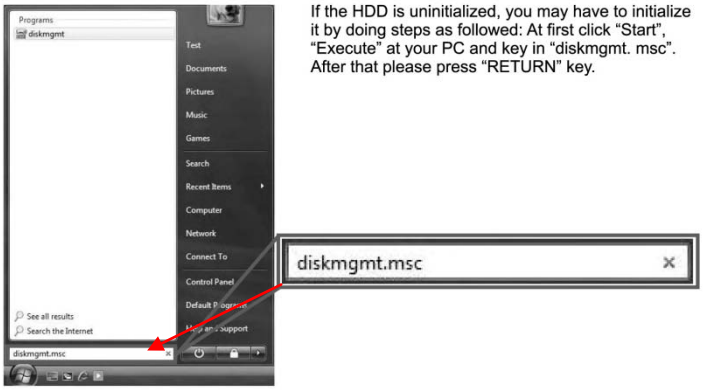


3. Disk format completed.

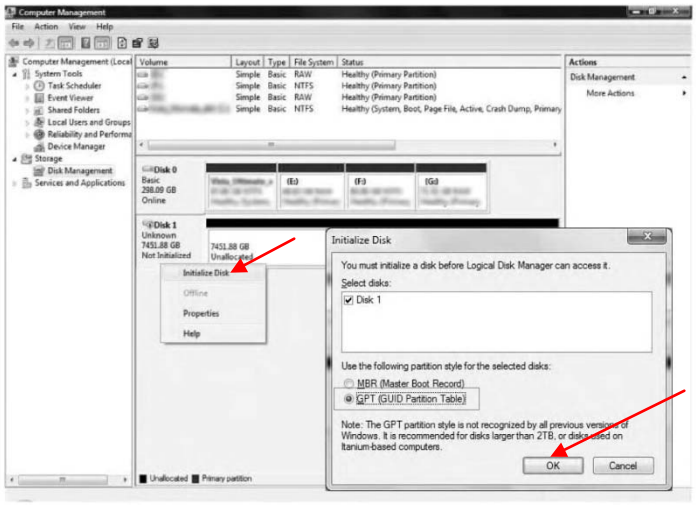


5.2 WINDOWS VISTA (32/64 BIT)

If the HDD is uninitialized, you may have to initialize it by doing steps as followed:
- At first click "Start", “Execute" at your PC and key in "diskmgmt. msc".
- After that please press "RETURN" key.

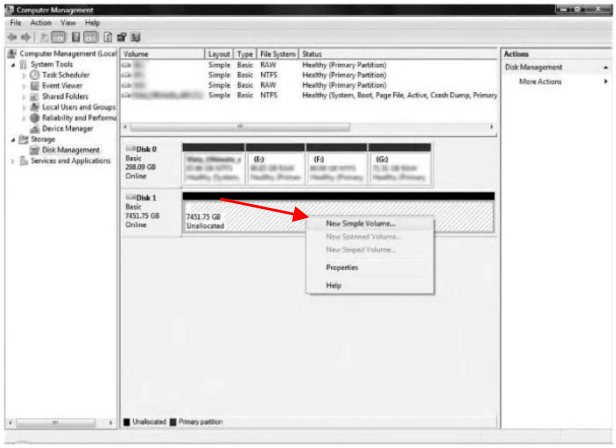


1. Start disk initialization.

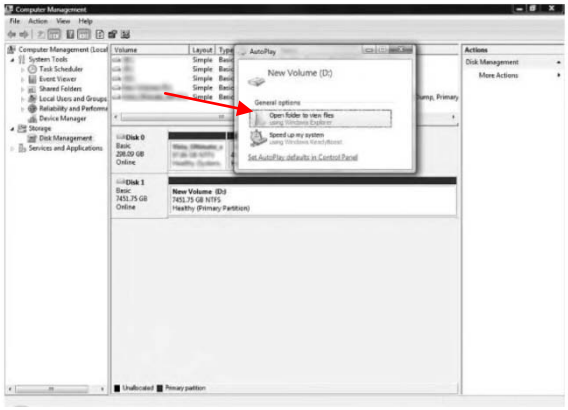


Remark: Please enable GPT if the total capacity is more than 2 TB and enable MBR if the total capacity is less than 2 TB.

2. Create new partition and format disk.



3. Disk format completed.

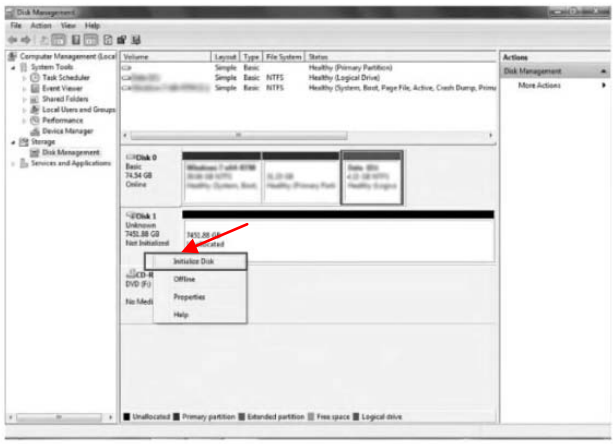


5.3 WINDOWS 7 (32/64 BIT)

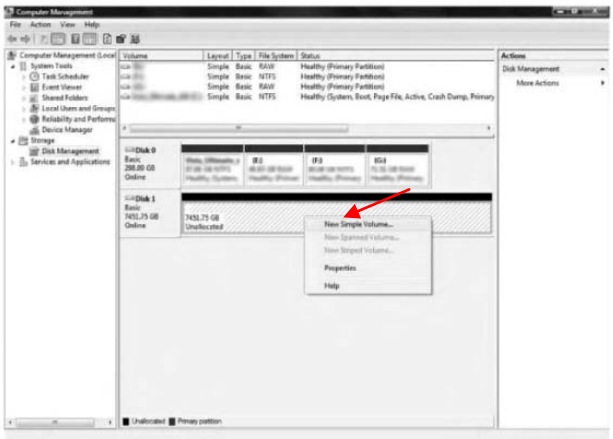
If the HDD is uninitialized, you may have to initialize it by doing steps as followed:
- At first click "Start", “Execute" at your PC and key in "diskmgmt. msc".
- After that please press "RETURN" key.

1. Start disk initialization.

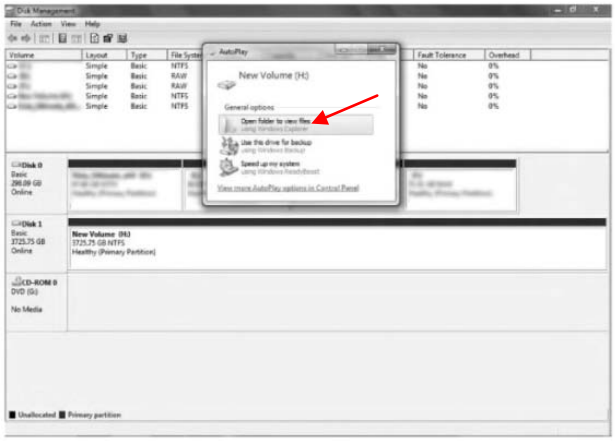
Remark: Please enable GPT if the total capacity is more than 2 TB and enable MBR if the total capacity is less than 2 TB.



2. Create new partition and format disk.



3. Disk format completed.



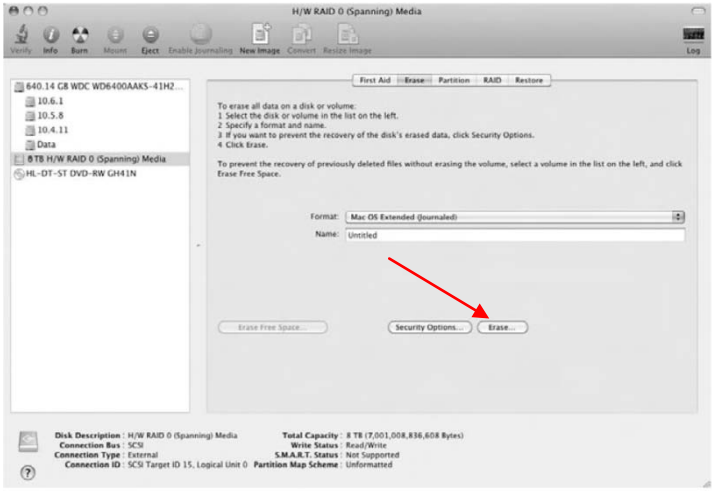
5.4 MACINTOSH O.S. 10.X

If the HDD is uninitialized, you may have to initialize it by doing steps as followed:

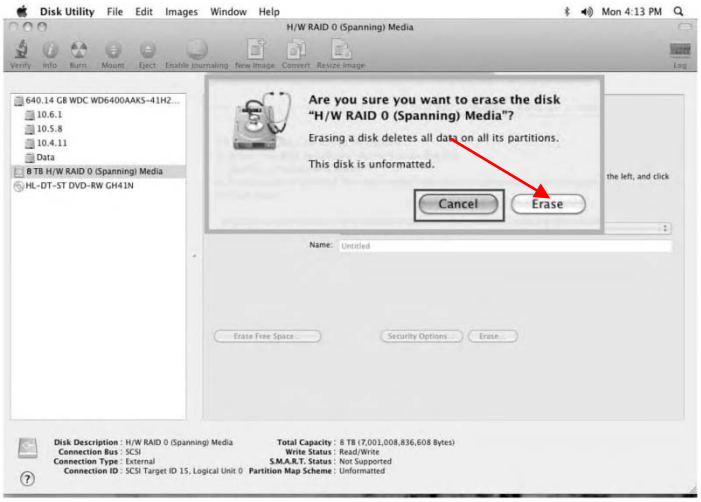
1. Click Disk Utility icon

2. HDD initialise…

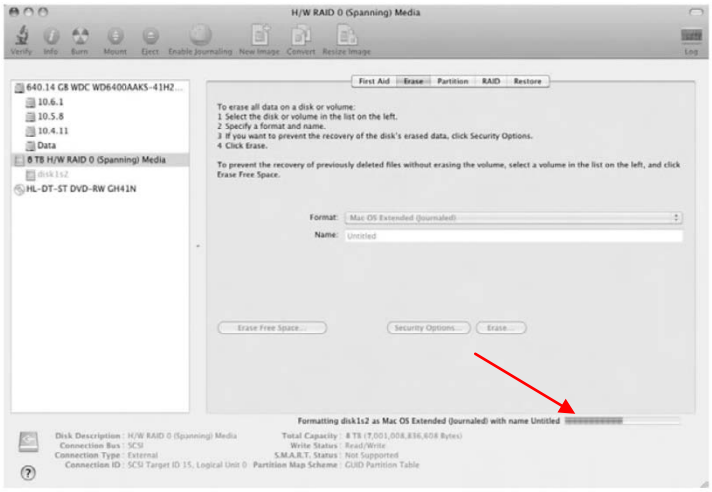
3. Click Erase



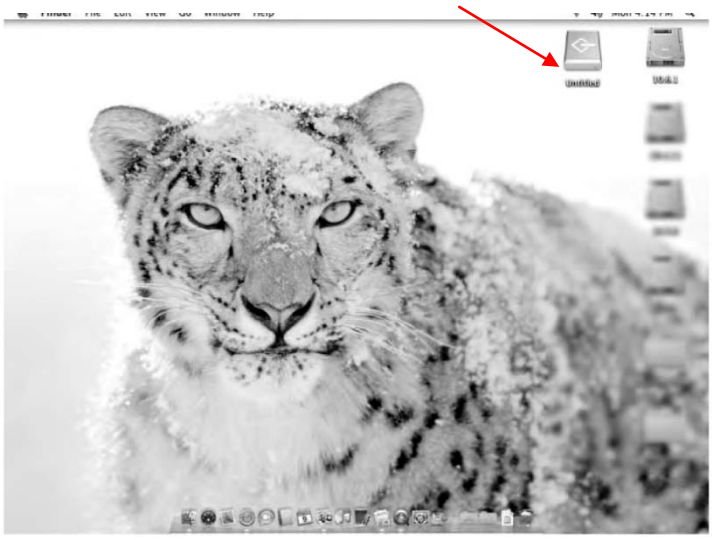
4. Click Erase



5. HDD format in process



6. Format completed



6. REFERENCES

1. Changing the RAID mode will cause data lost.
2. Please refer to the instructions when switching the RAID mode, otherwise the execution might fail.
3. Interface of USB / eSATA / (Firewire) **cannot** be used at the same time.
4. When using the RAID function, HDD's with the same brand, model and capacity is strong recommended.
5. When using RAID function, more than one HDD partition is not recommended.
6. Under Windows Vista /7, users can enable GPT when initializing HDD with a total capacity of more than 2 TB.
7. Older OS may not recognize the device if you use a different operation system than Windows Vista / Windows7. For more detailed information about GTP, please visit: http://msdn.microsoft.com/en-us/library/windows/hardware/gg463525.aspx
8. If users enable MBR by mistake, in order to clean the partition table, you have to switch to another RAID mode and do the RAID mode switch all over again referring to Setup. Then go back to the RAID mode you want, repeat the previous actions and enable GPT when initializing HDD.
9. For Macintosh users: the total capacity of more than 2 TB could be recognized only for the operation system 10.4.11 Tiger or later.
10. Do not connect the device to the SATA on board port of the motherboard. Either use SATA to eSATA PCI-Express or SATA to eSATA PCI add-on card; otherwise the PC (Windows / Macintosh) may not recognize the device.
11. In RAID 1, HDD1 and I-IDD2 must be installed; otherwise the PC (Windows / Macintosh) cannot recognize the device.
12. Rebuild time is based on the capacity, e.g. it takes about 1 hour for 200 GB.
13. When the USB / eSATA cable is plugged out, the device goes to sleeping mode automatically.
14. To take out the HDD from the device, slightly press down the handle of the tray and pull it out.
15. Setting up motherboard's power management in S3 is recommended.
    (For more details refer to the user guide of motherboard BIOS setting).
16. If the device takes too long to initialize, please check if the HDD is securely installed or update the SATA host driver version.
17. If the transfer rate is not normal, please check if the setting of SATA disk jumper is 1.5 or 3.0 Gbit/s.
18. If there is noise with the fan, power off the device, unscrew the fan, take out the cover, clean the fan end assemble it back.
19. If the noise is still present, you can change the fan with another identical fan of Size 80X80X20mm.
20. If the fan stops working, do not dismantle it. Please send back to the retail store immediately.
21. Temperature 0 ~ 60 °C
    Humidity 90 RH
22. Smart fan controlled by the built-in thermal sensor and it comes with 2 modes (auto/manual) and 3 levels of speed:

Level 1: below 45 °C 1,200rpm ~ 1,800rpm
Level 2: 45 °C ~ 54 °C 1,800rpm ~ 2,500rpm
Level 3 : higher than 55 °C 2,500rpm ~ 3,500rpm

23. **Operation System:**
Windows XP (32/64bit)
(with MBR enabled, supports total capacity up to 2 TB)
Vista (32/64bit) / Windows 7 (32/64bit)
(with GPT enabled, supports total capacity more than 2TB)
Macintosh 10.X or later

24. Support USB transfer speeds of low speed (up to 1.5 Mbit/s), full speed (up to 12 Mbit/s), high speed (up to 480 Mbit/s), super speed (up to 5 Gbit/s), eSATA transfer speed (up to 1.5~3.0 Gbit/s), Firewire a (up to 400 Mbit/s), Firewire b (up to 800 Mbit/s).
Note: Port multiplier at host computer needed, if connected via eSATA

the information contained in this manual was correct at the time of publication. However, as our engineers are always updating and improving the product, your device's software may have a slightly different appearance or modified functionality than presented in this manual.