RAID For 1394

User's Manual

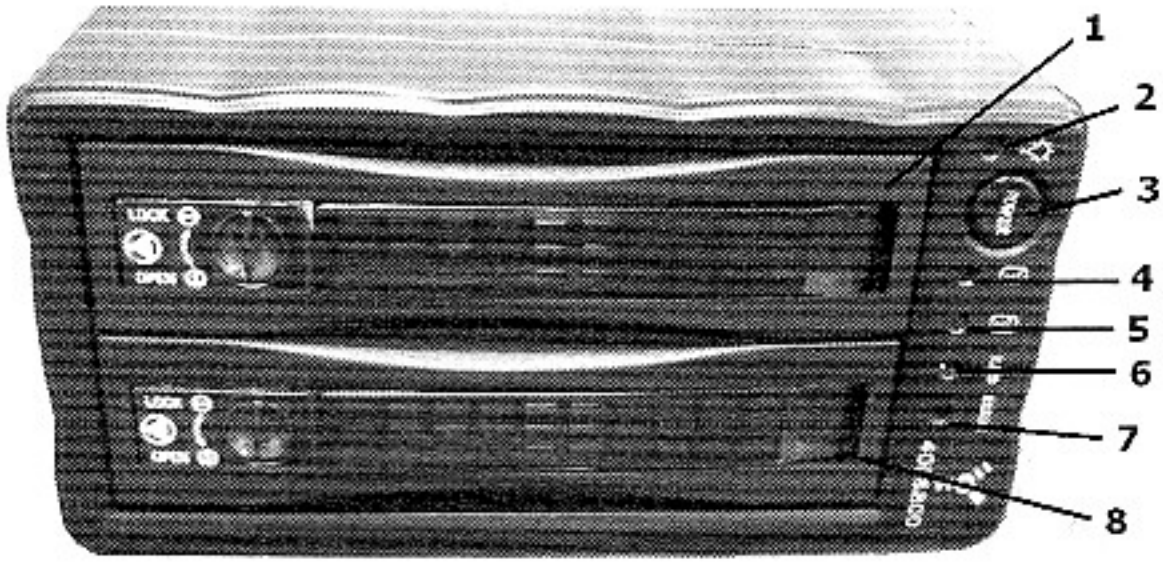
Model:

- 2320 IDE
- 2320 SATA

Features of product ---

* Two built-in Bilingual-9 pin IEEE 1394b ports & one 6pin 1394a specification.
* Maximum transfer rate up to: 800Mbps for 1394b and 400Mbps for 1394a.
* Complies with UDMA33/66/100/133 interface
* Support external storage, Raid 0 & Raid 1.
* With data-rebuilding function in Raid 1 mode.
* With hot-plug function, no driver needed.
* Aluminum material and air Cooling fan with excellent heat dissipation and best air ventilation.

---Front panel---



1) HDD-1 Disk Driver

2) Power LED

3) Power SW

4) HDD-1 Operation LED

5) HDD-2 Operation LED

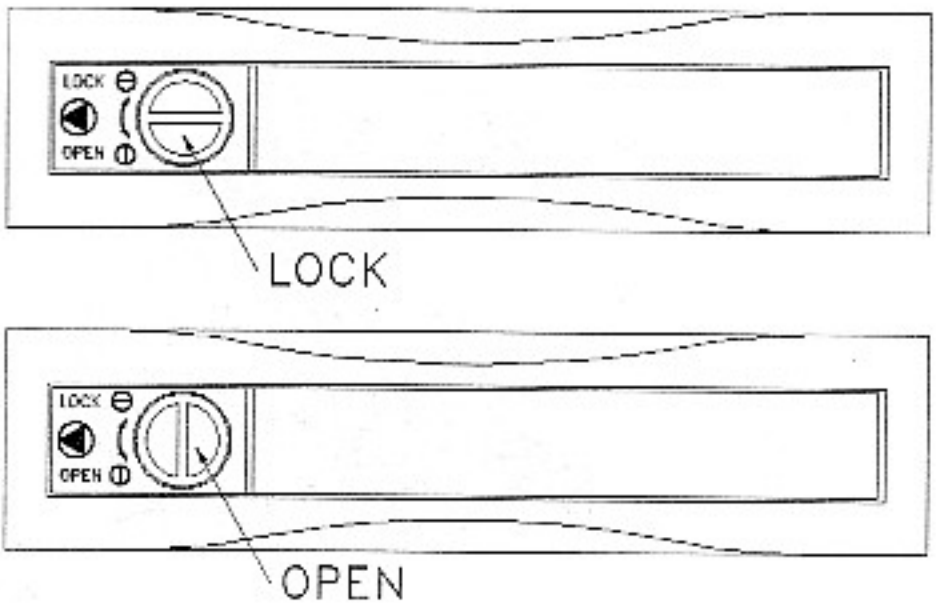
6) RAID LED

7) RAID 1 Error indicator

8) HDD-2 Disk Driver

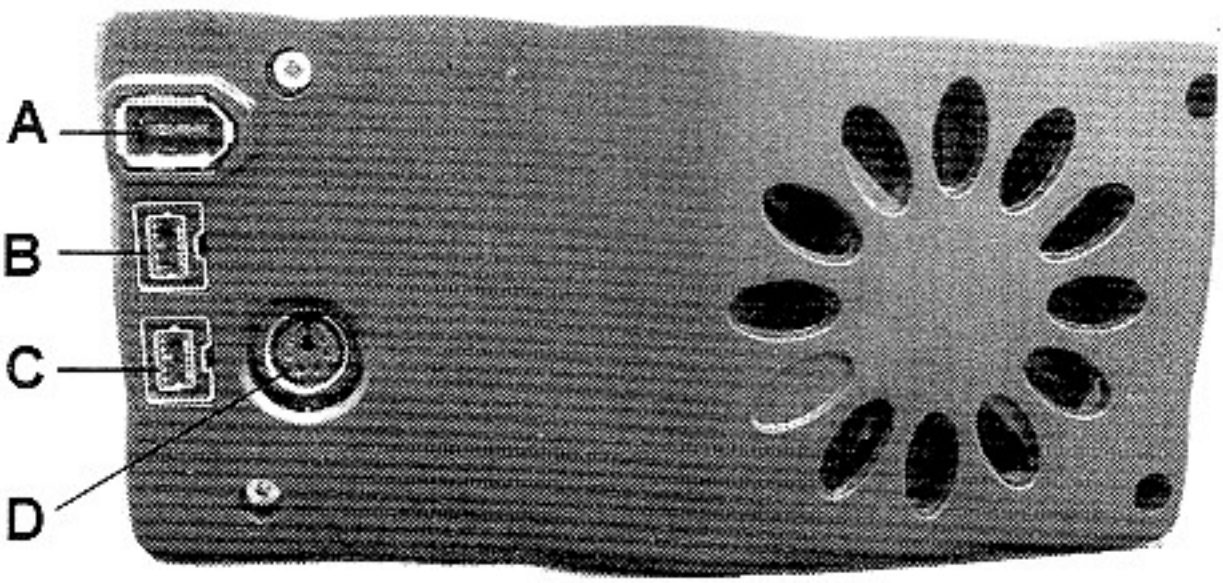
During building the RAID, The 'Error Indicator' will lit ON if errors occur during building the RAID. The HDD operation LED will be blinking while HDD reading/writing

---Safety lock---



Turn the lock-button lock (horizontal) and open (vertical).

---Real View---



A) IEEE1394 400 Connector

B) IEEE1394 800 Connector

C) IEEE1394 800 Connector

D) 5V/12V Power connector

How to work with 2320 RAID Box?

RAID -- Short for ***R**edundant **A**rray of **I**ndependent (or **I**nexpensive) **D**isks*

There are three ways for your connection between the RAID box and your system:

1) As An External Enclosure with Two HDDs:

It's suggested to apply for the need of lower transfer rate and lower security

2) As Raid 0:

Hard Disk Requirements: Minimum of two hard disks; maximum set by controller. Any type may be used, but they should be of identical type and size for best performance and to eliminate "waste".

RAID 0 -- Striped Disk Array without Fault Tolerance: Provides *data striping* (spreading out blocks of each file across multiple disk drives) but no redundancy. This improves performance but does not deliver fault tolerance. If one drive fails then all data in the array is lost.

Recommended Applications:

Need high transfer- rate-required digital images, such as movie, TV, and commercial images.

3) As Raid 1:

Hard Disk Requirements: RAID Level 1 requires a

minimum of 2 drives to implement

Level 1 -- Mirroring and Duplexing: Provides disk mirroring. Level 1 provides twice the read transaction rate of single disks and the same write transaction rate as single disks. RAID Level 1 provides redundancy by writing all data to two or more drives. The performance of a level 1 array tends to be faster on reads and slower on writes compared to a single drive, but if either drive fails, no data is lost. This is a good entry-level redundant system, since only two drives are required; however, since one drive is used to store a duplicate of the data, the cost per megabyte is high. This level is commonly referred to as mirroring.

Recommended Applications:

*Accounting *Payroll

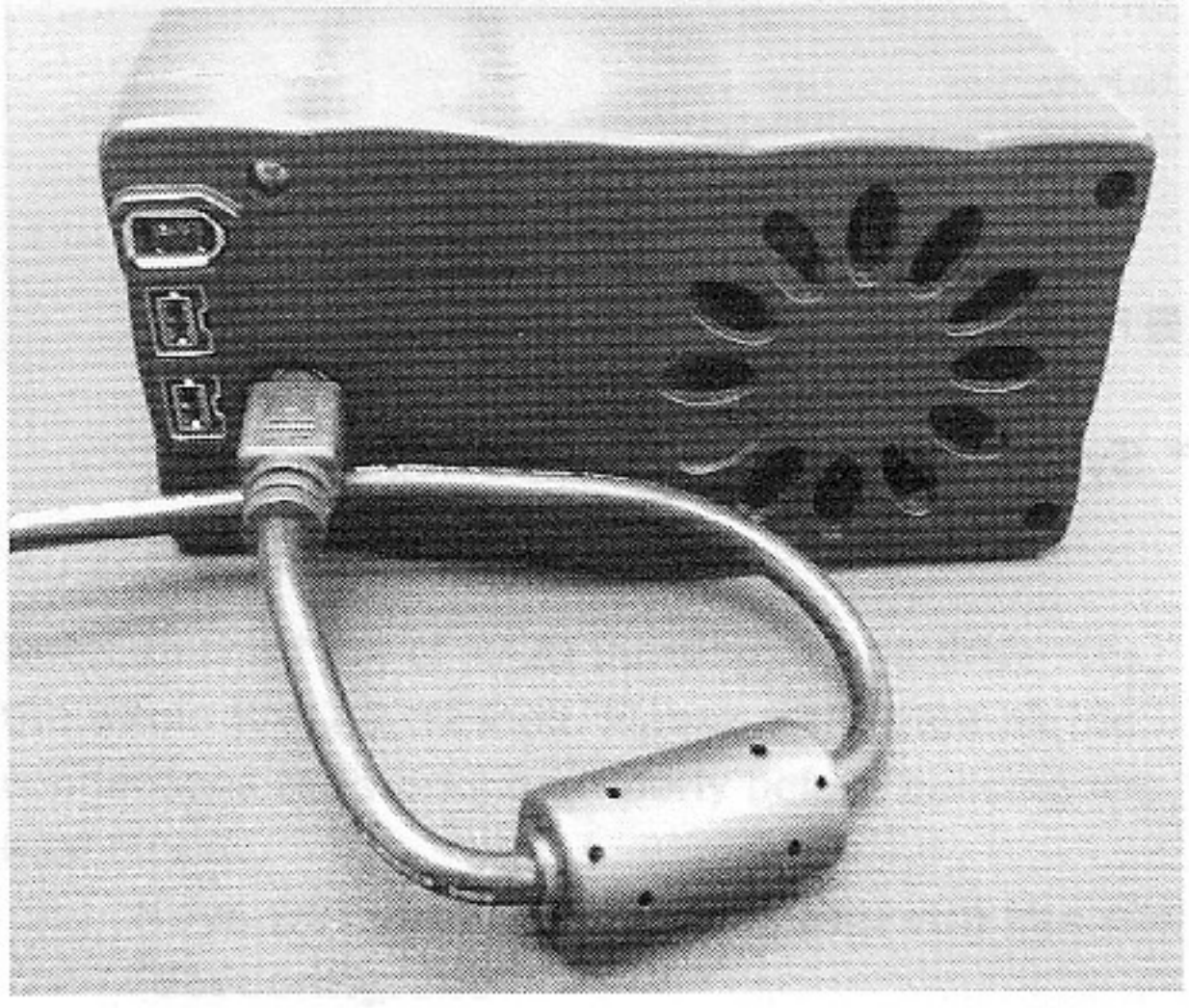
*Financial *R&D & Securities

*Any application requiring very high availability

How to setup RAID function

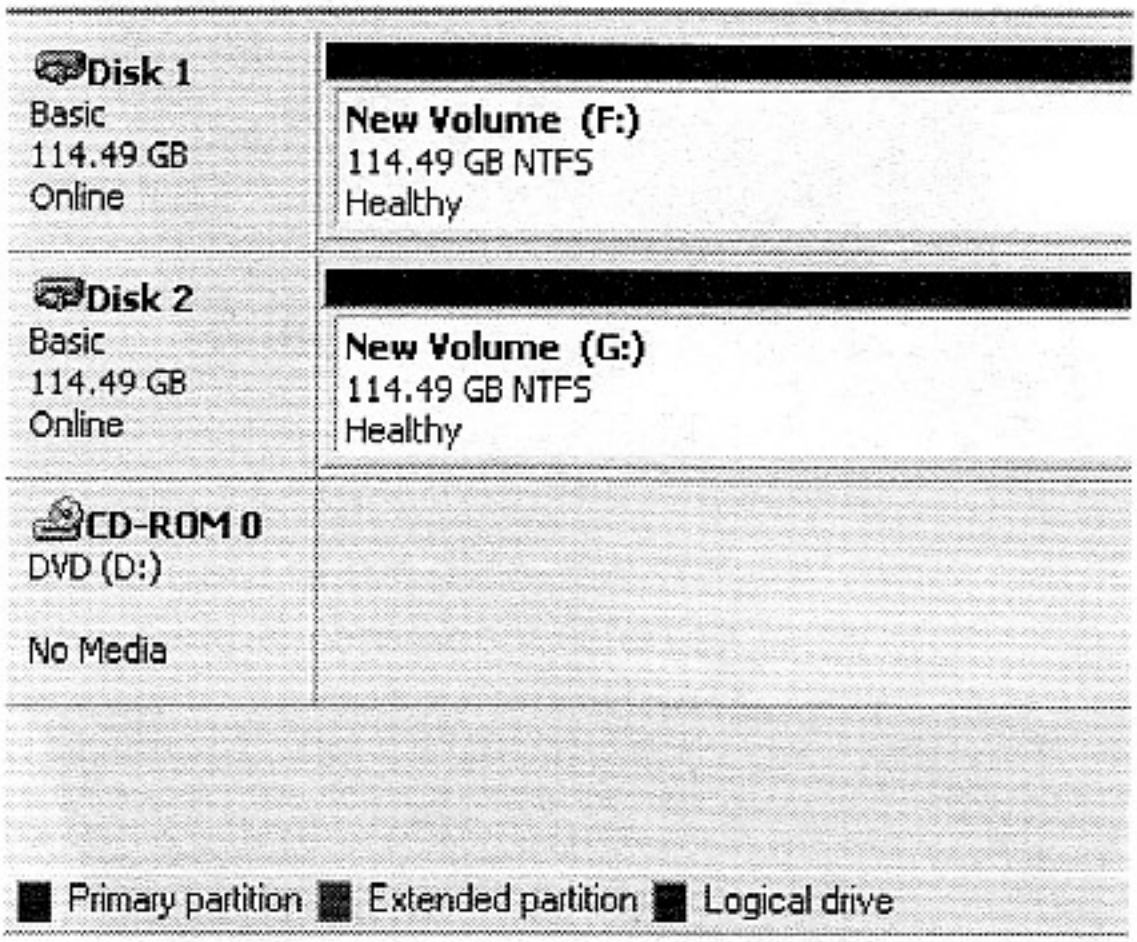
With 2320 IEEE1394 RAID Box

Firstly, HDD, Power and Cable have to be well installed before setup the RAID Function:



(None RAID)

In this type setup, system will detect two new devices automatically after installation. Please format HDD in advance if it is new. (As following)



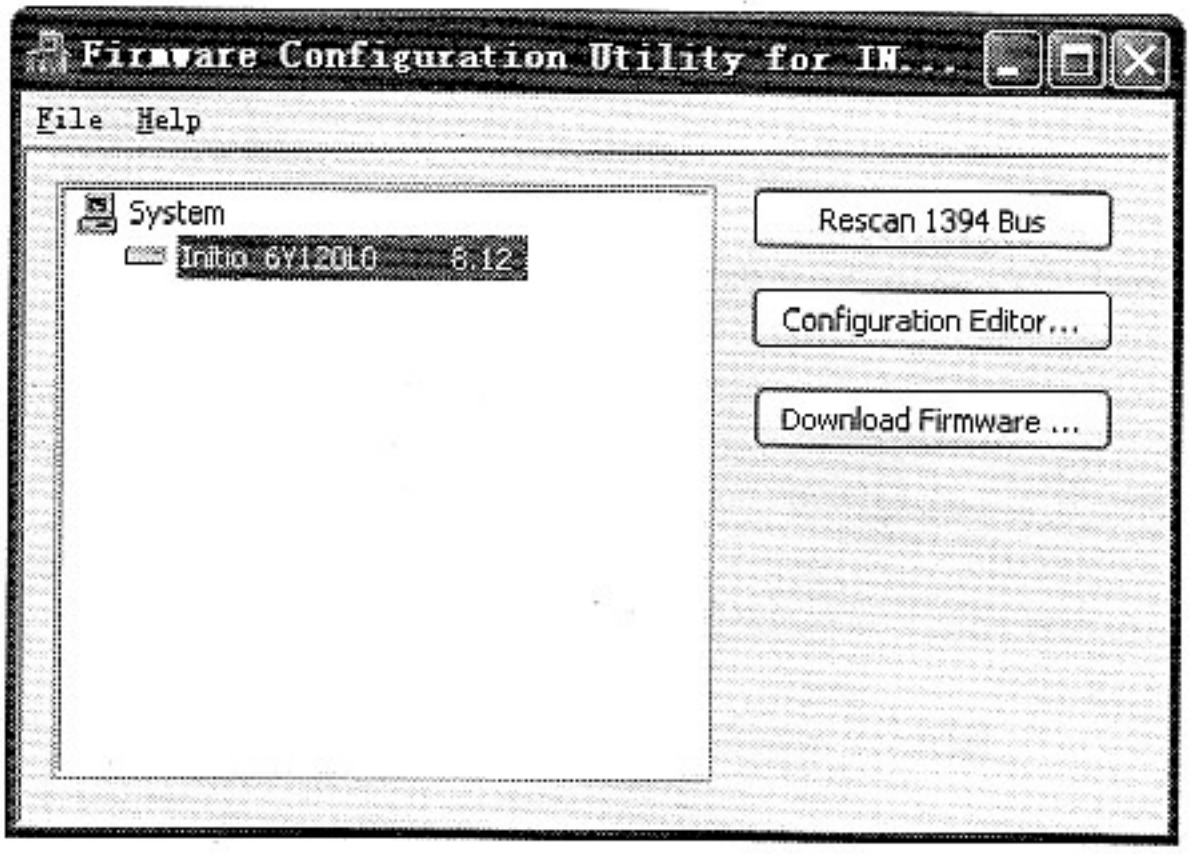
* System recognizes new devices mode

RIAD 0 Building

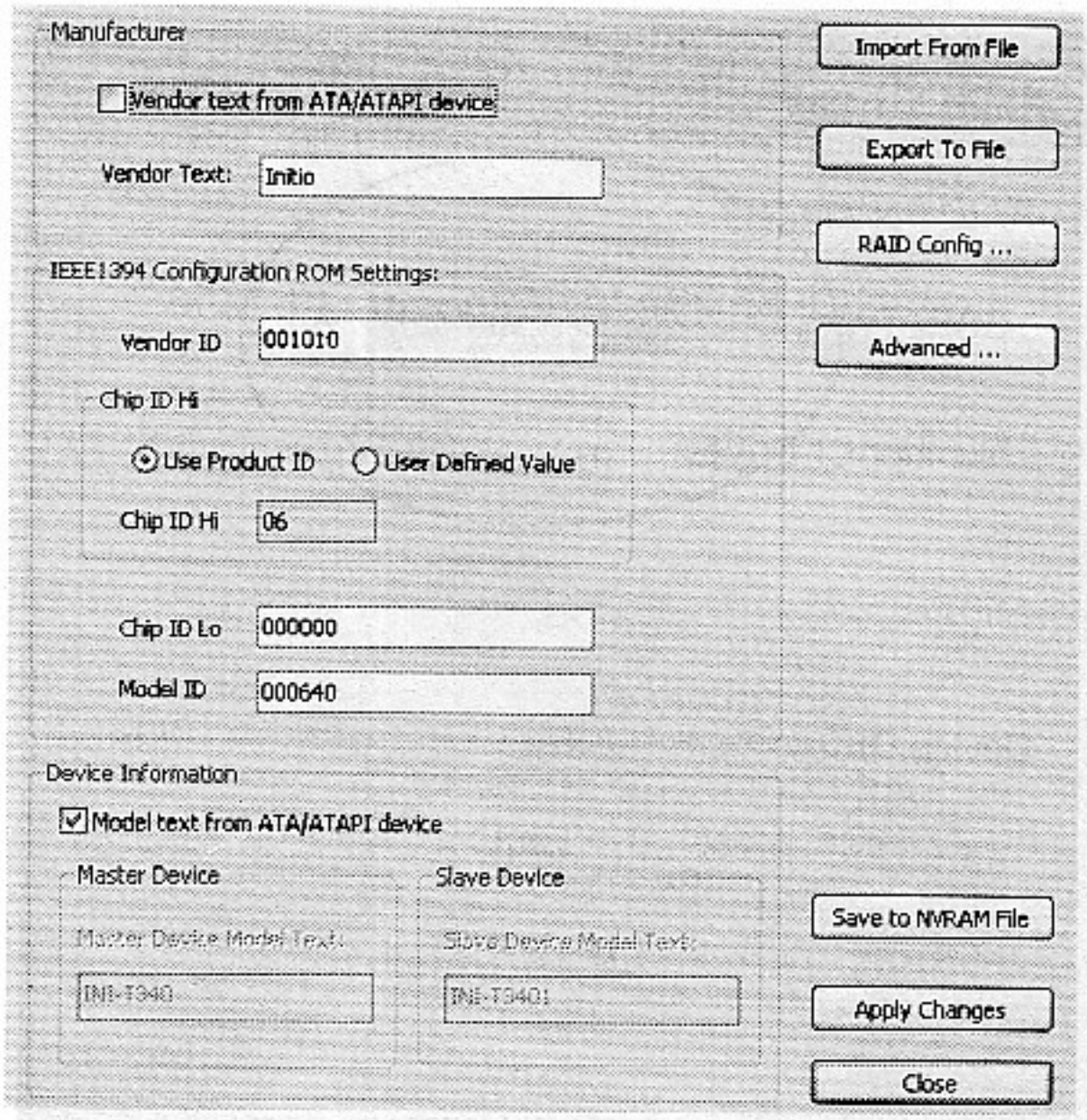
Note: In this type of RAID building, if one drive fails, the whole RAID 0 crashed. Please make sure all the connections are working properly before building the Raid Mode.

Now, put your driver CD in and run the file "FWConfig.exe"

After click the above, it will shows: "Configuration Editor..."

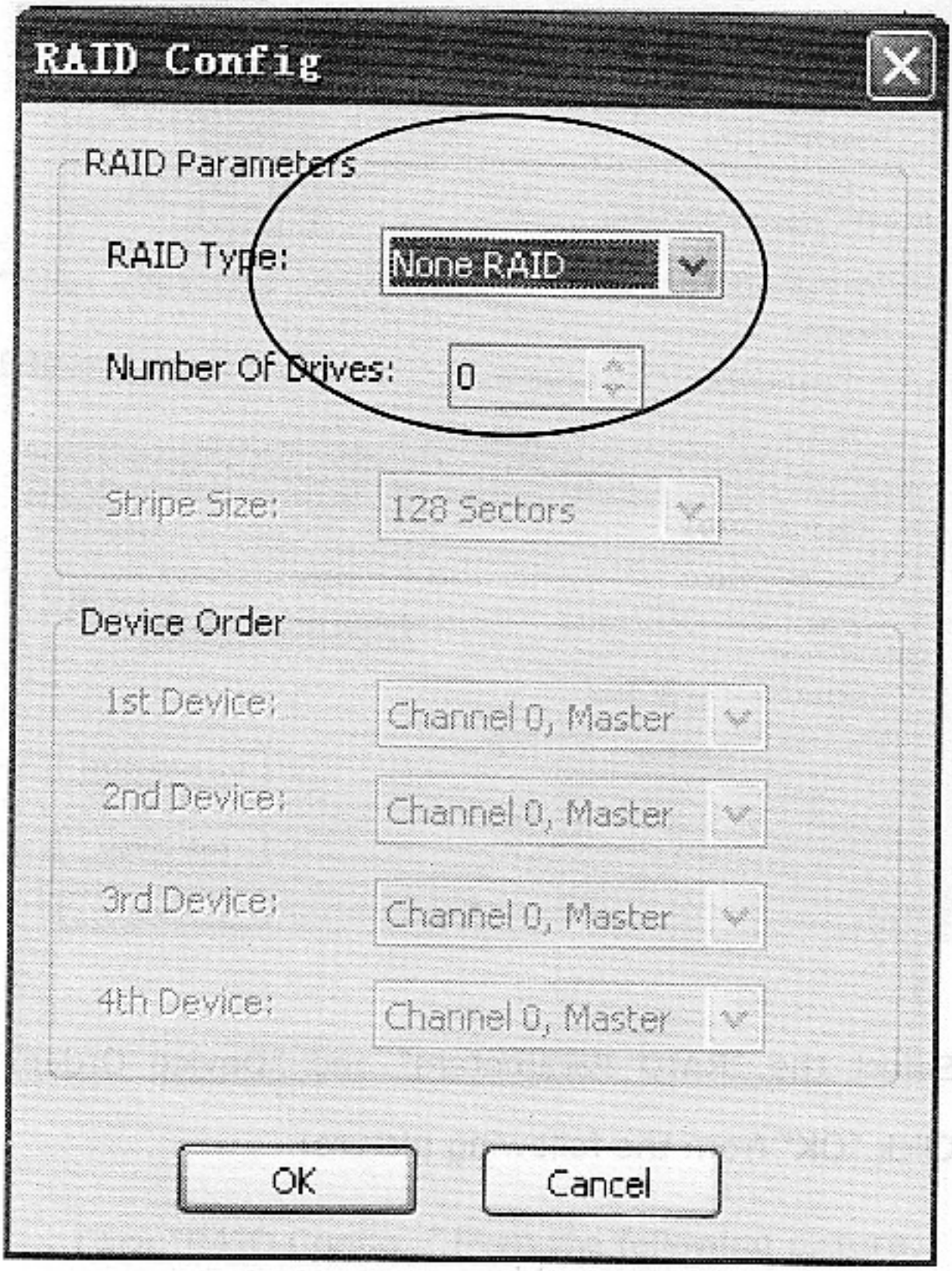


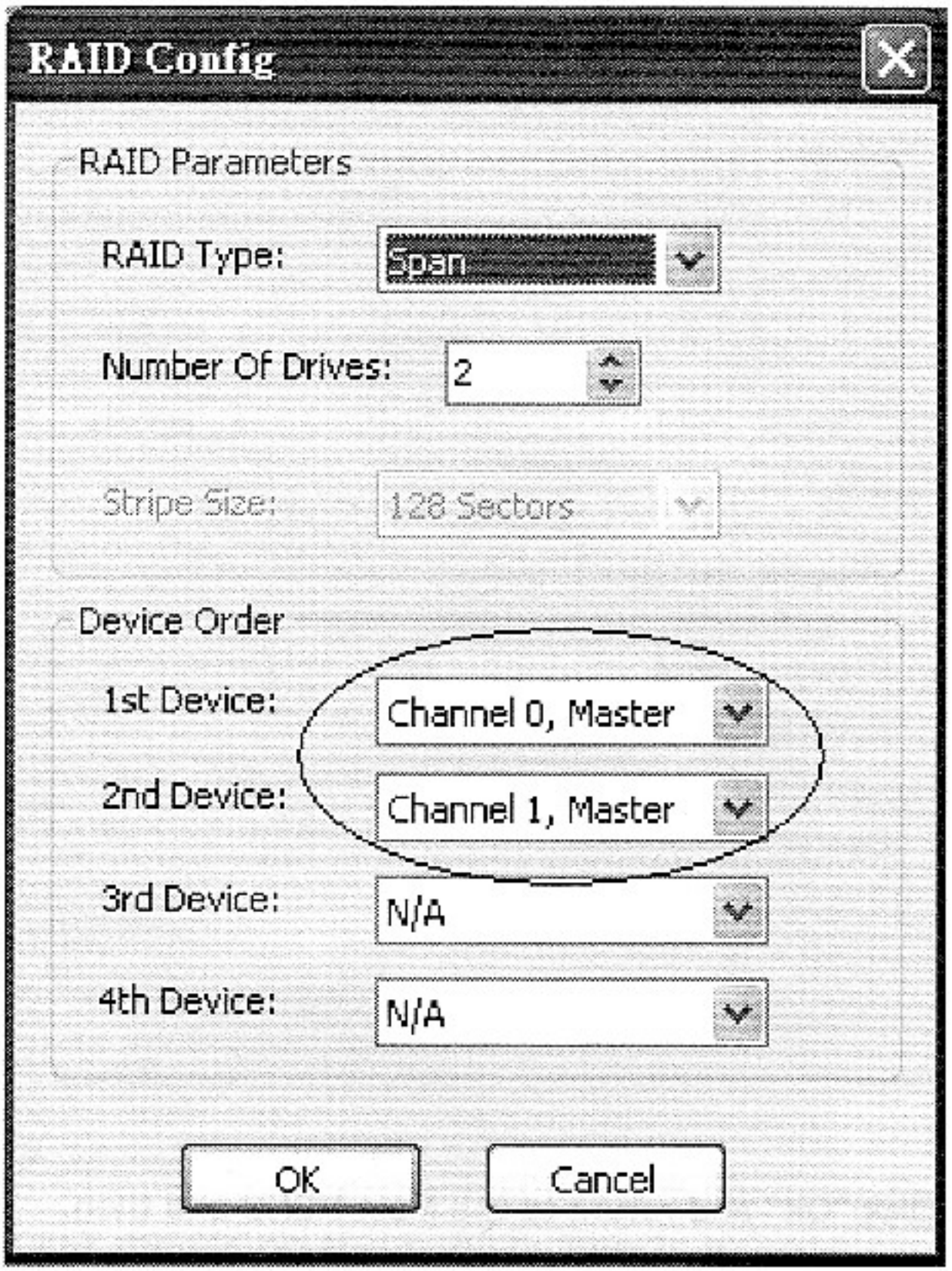
Click "RAID Config..." from the following picture:



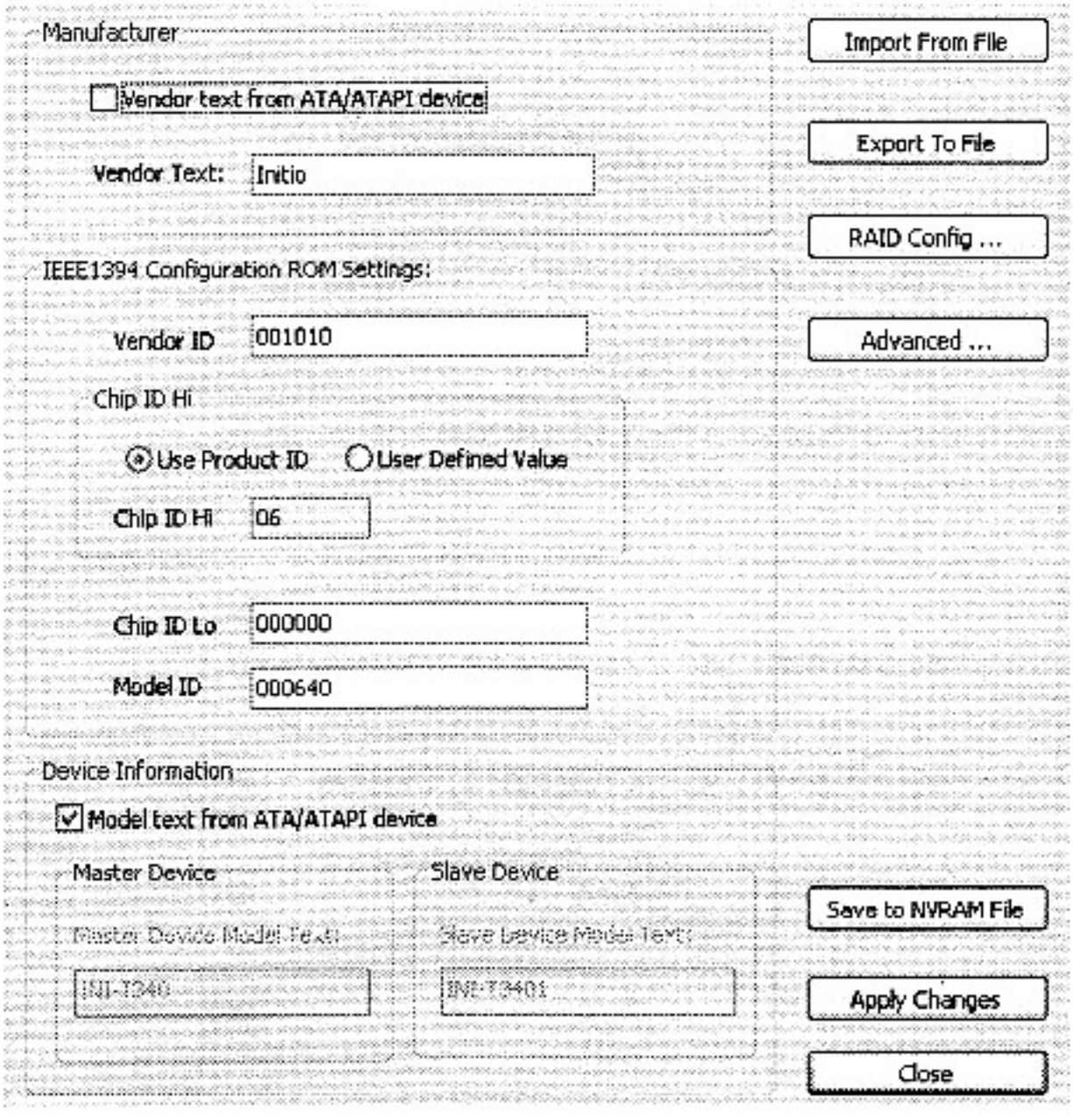
Select the "RAID Parameters" and "Device Order"

Click "OK" from the following picture:

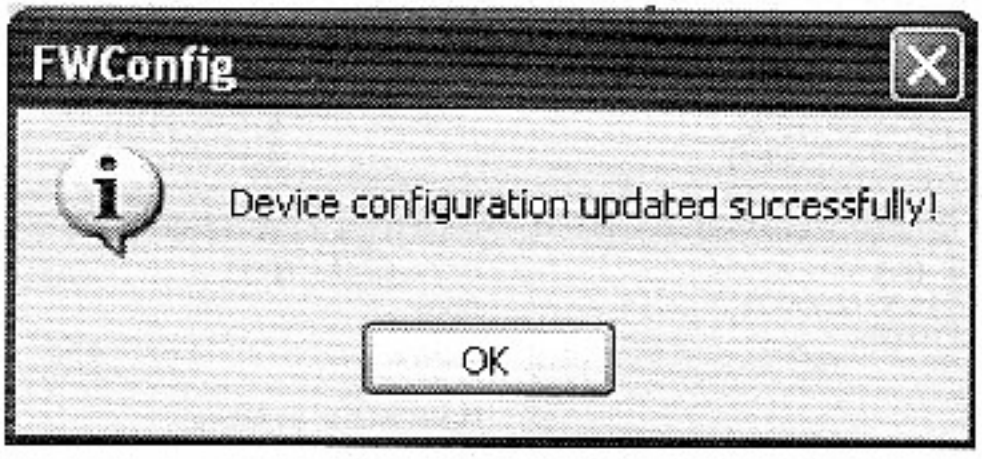

RAID Config
RAID Parameters
RAID Type:
None RAID
Number Of Drives:
0
Stripe Size:
128 Sectors
Device Order
1st Device:
Channel 0, Master
2nd Device:
Channel 0, Master
3rd Device:
Channel 0, Master
4th Device:
Channel 0, Master
OK
Cancel


RAID Config
RAID Parameters
RAID Type:
Span
Number Of Drives:
2
Stripe Size:
128 Sectors
Device Order
1st Device:
Channel 0, Master
2nd Device:
Channel 1, Master
3rd Device:
N/A
4th Device:
N/A
OK
Cancel

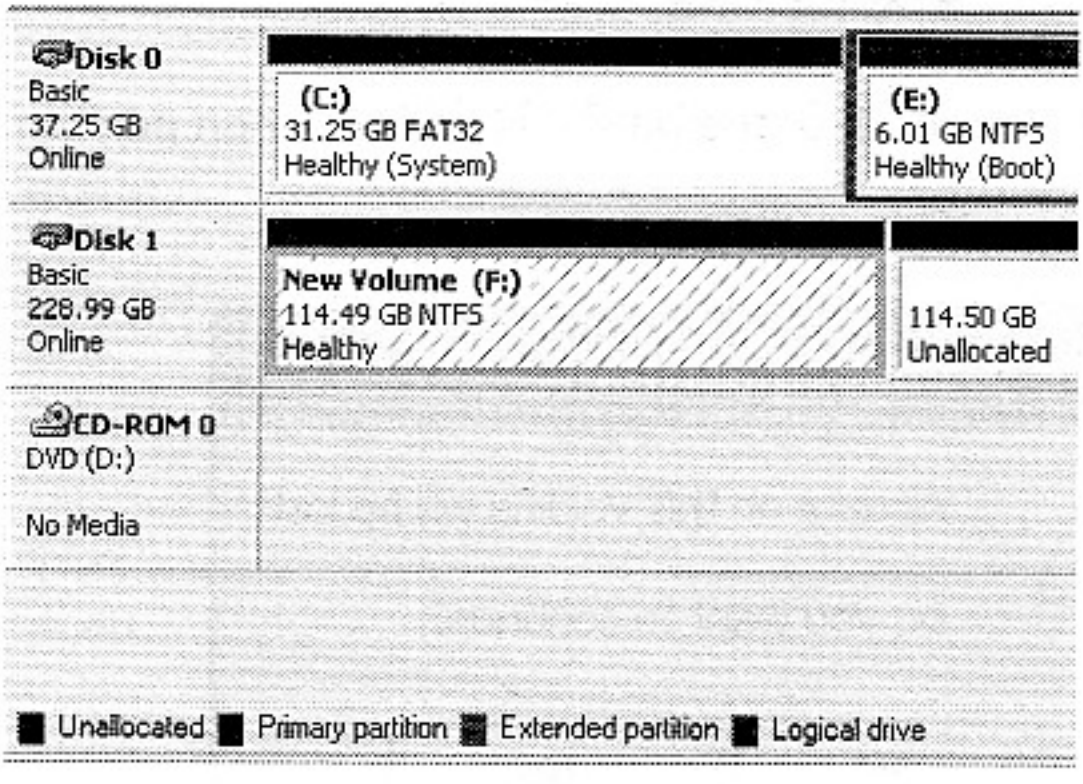
Click "Apply Changes" from the following picture:



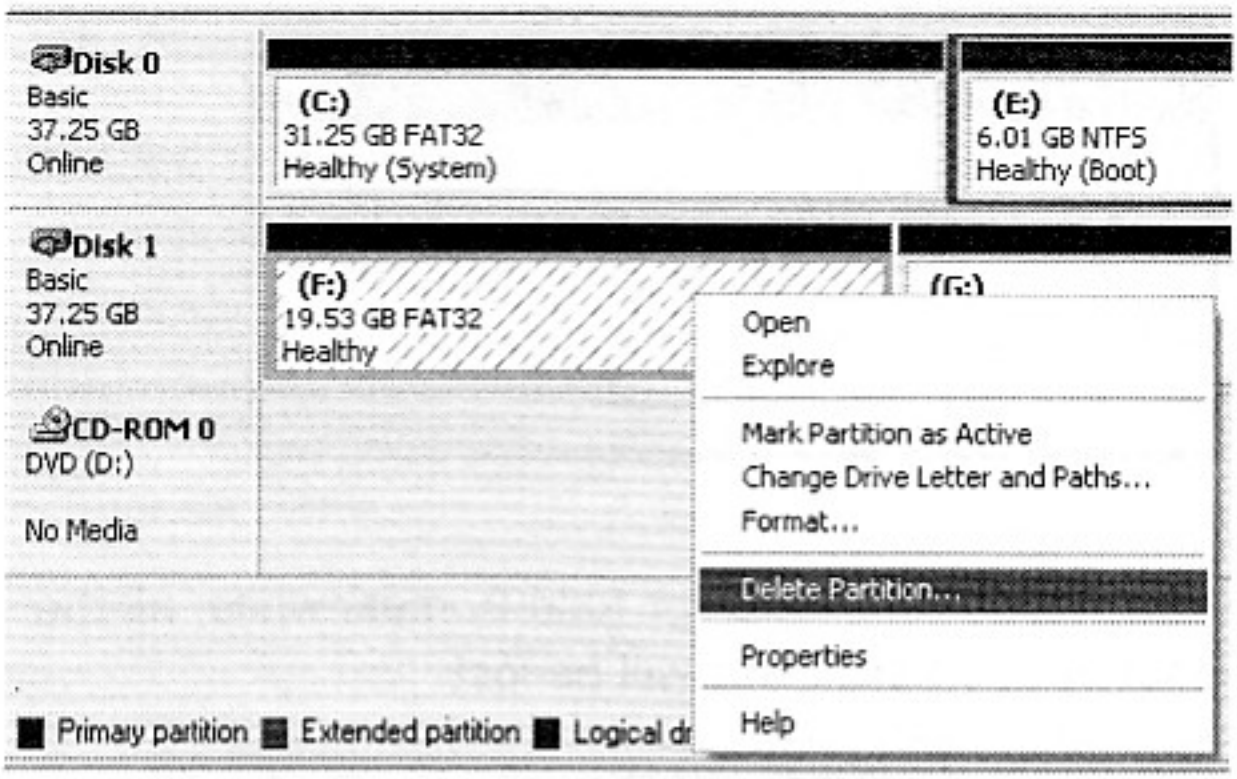
Click "OK" and return to the Main MENU and then, restart Raid box 2320 to allow configurations work in selected RAID functions.



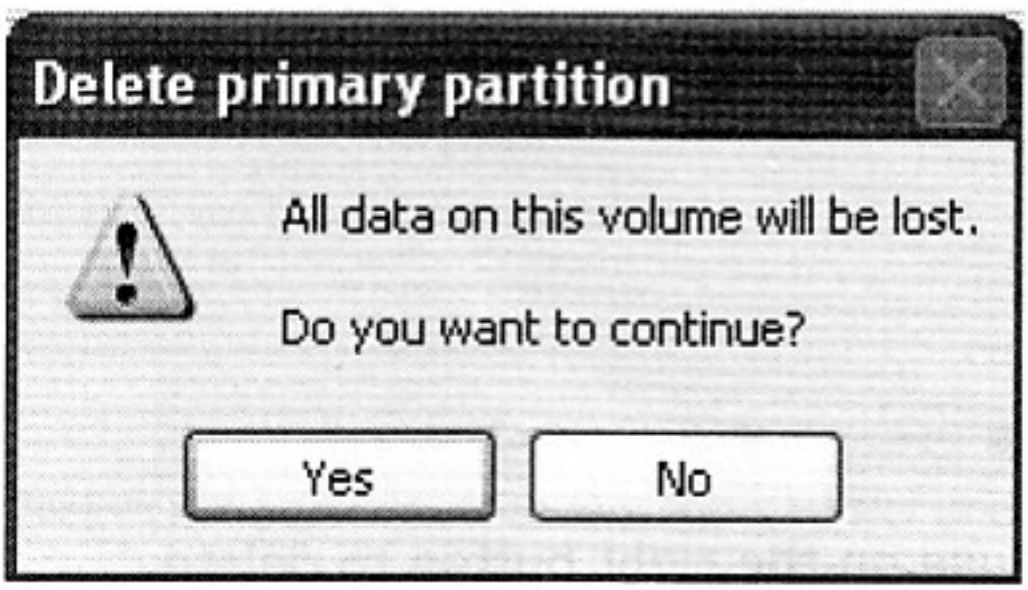
Now, Formatting HDD for Raid 0, meanwhile, all the data on the hard disks will be lost.



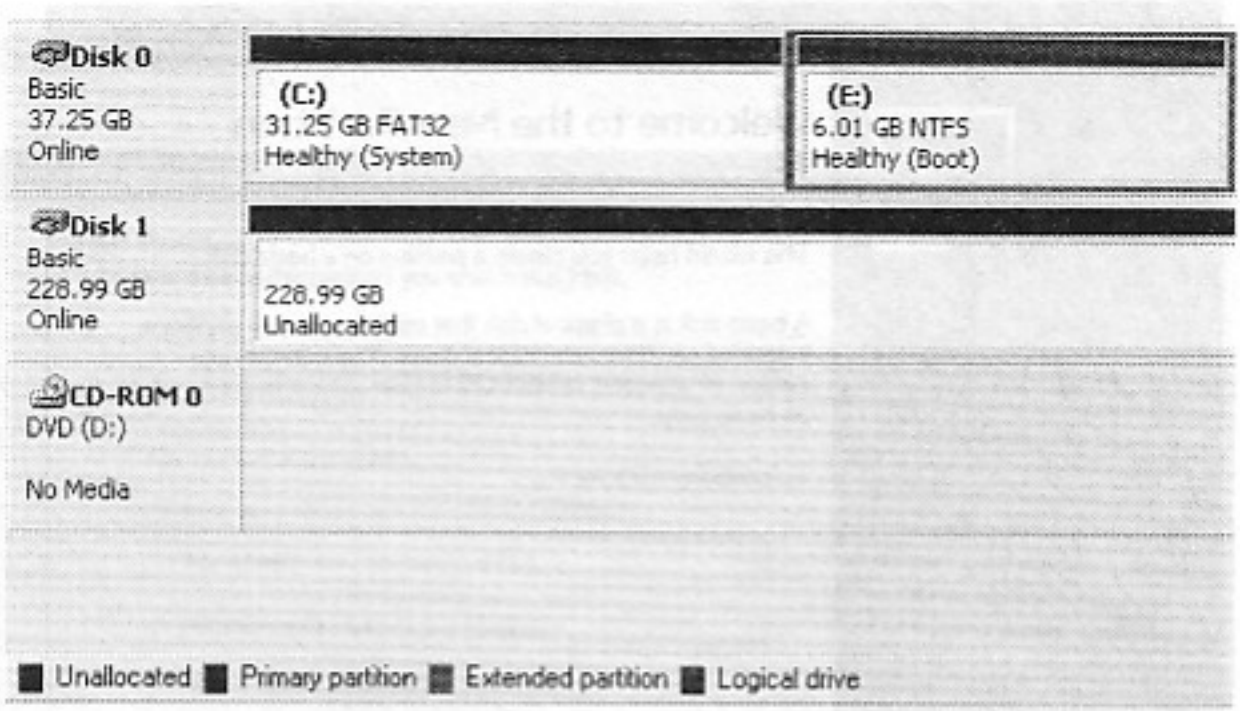
Click mouse on the right button to delete previous formatting settings.



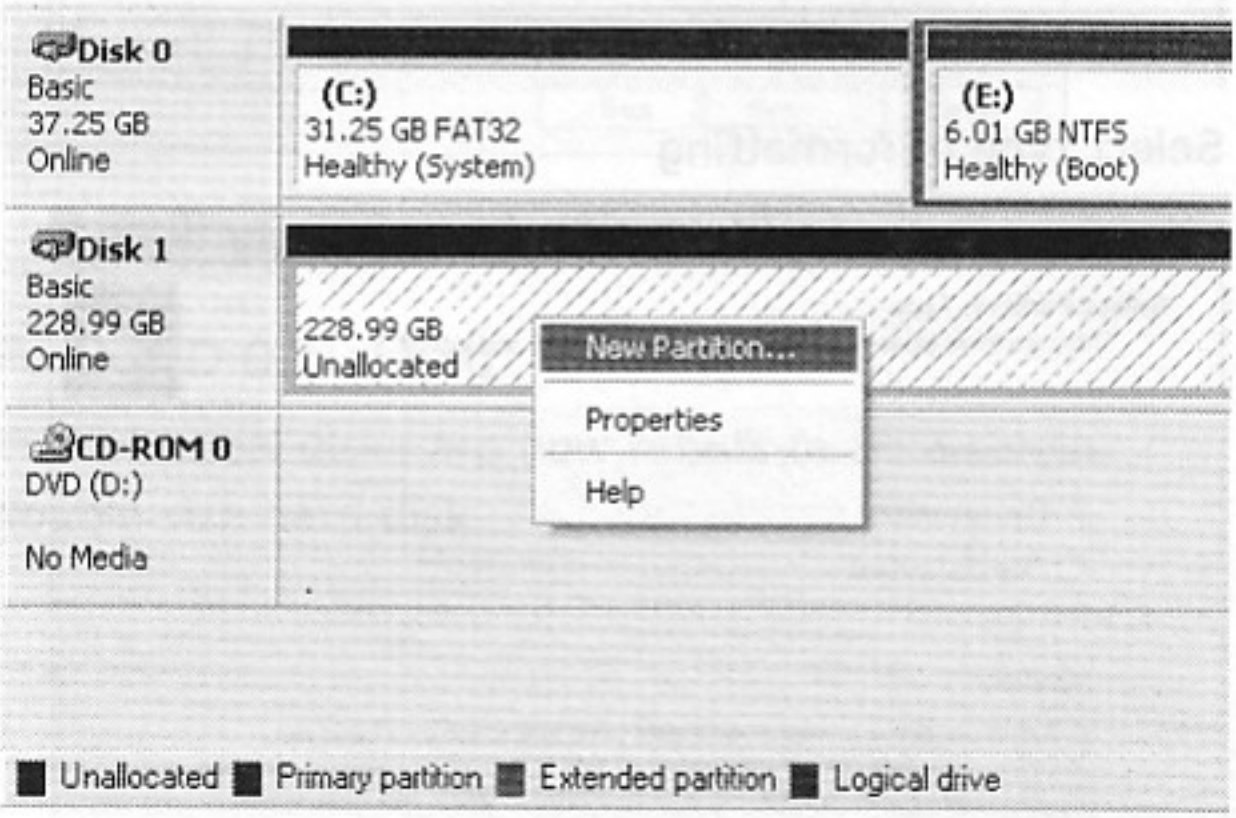
Note Menu: All of the data will be lost when perform the new HDD formatting.



Click 'Yes' to rebuild two drives to be one drive, and formatting.

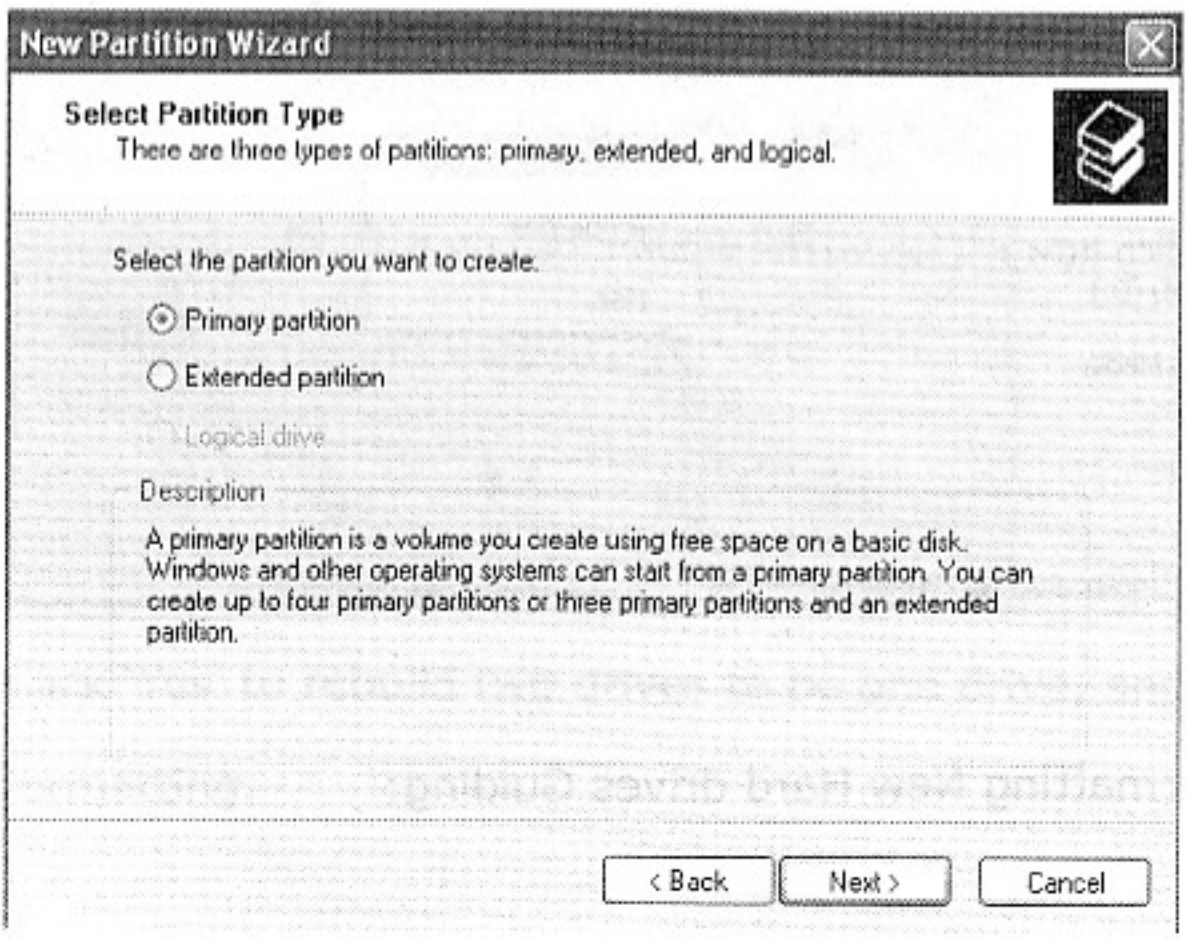


Click right button to rebuild new driver

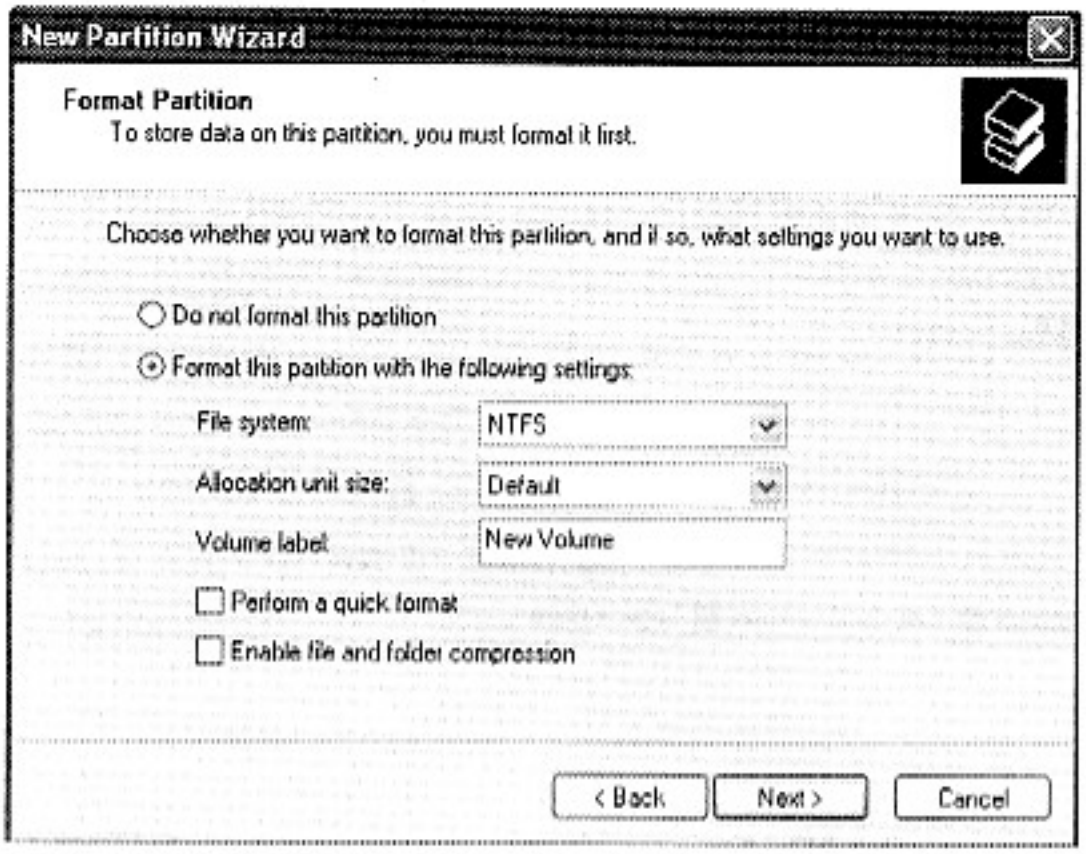


Formatting New Hard drives Guiding:

Select type of formatting

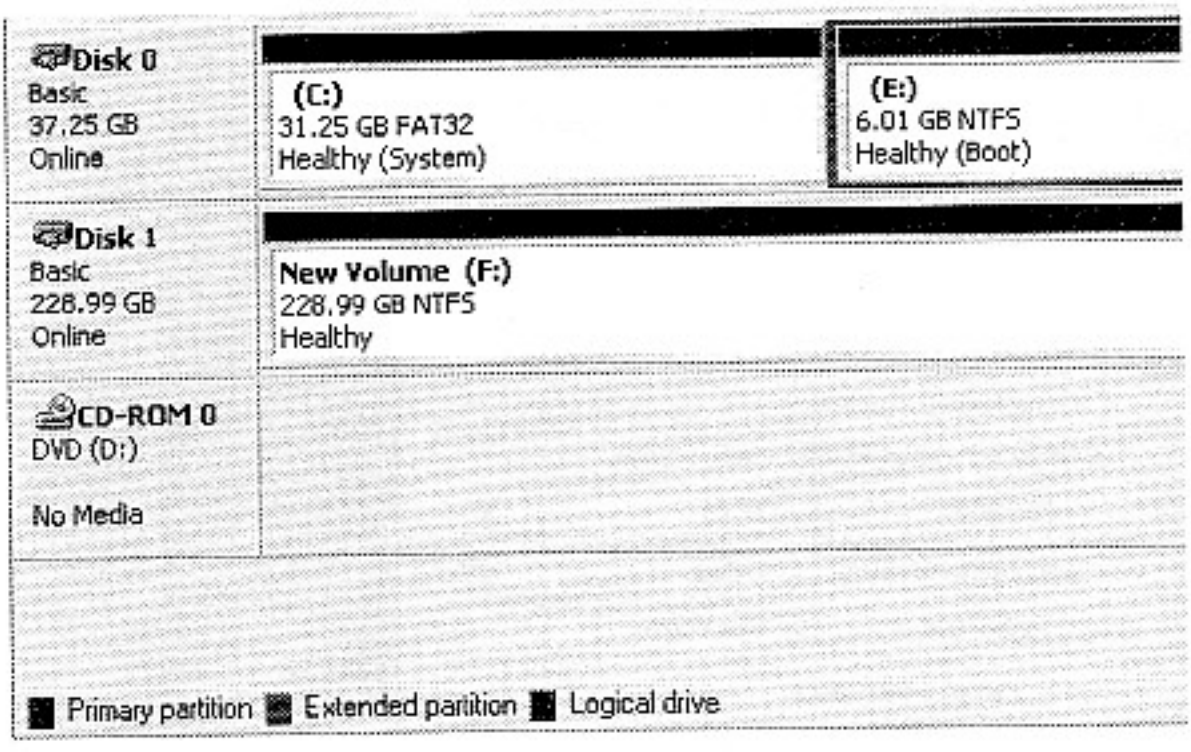


Set the volume of the HDD and format it.



For RAID 0 building:

Two physical disks are now rebuilt to be a single double size hard disk



For Building RAID 1:

Following the same steps as RAID 0 with the following:

1) First, run FWConfigration.exe.
2) Select 'RAID 1' in RAID type.
3) Return to the Main MENU and then, finish the program.
4) Remove the Firewire external device from the explore and remove the firewire cable. Then power off the power on the Raid Box.
5) Power on the Raid Box again (Note: Do not connect the Raid Box to the system at this moment).
6) When Raid 1 is building and functioning, the Raid building LED will be blinking until the Raid building is finished.

7) Connect the Raid Box to the system to partition and format the HDD.

Warnings:

1) Please backup the original data before starting RAID building because the disk will be new formatted and reorganized, all of the data will be lost after hard disks are formatted.
2) It takes a long time while building RAID 1. Please don't shut down or turn off the computer during RAID 1 building.