

# Re: Seagate 400GB drive reduced to 128GB after WinXP reinstall

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<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.hardware/2007-05/msg00319.html>

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- *From:* Paul <nospam@xxxxxxxxxxx>
  - *Date:* Sun, 13 May 2007 08:12:30 -0400
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Anna wrote:

"Danny" <Danny@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message  
[news:C1A614DA-9663-4DED-BF03-A3D53942A569@xxxxxxxxxxxxxxxxxxxx](mailto:news:C1A614DA-9663-4DED-BF03-A3D53942A569@xxxxxxxxxxxxxxxxxxxx)

I installed a 400GB drive as a secondary drive on a WinXP SP2 system as a single 372GB NTFS partition that I used as backup storage. I later reinstalled XP, but did not disconnect the 400GB drive before the new installation. XP recognized the 400GB drive as a single 128GB partition. Even after installing SP2, I could not get the full capacity of the drive back.

Since that time I have read this discussion group and have tried all of the things that I have read but still have the problem. If everyone will bear with me, I would like to go through everything again to make sure I am not missing anything.

Here are things that I have done. I have slipstreamed a disk with SP2 and my XP original disk, installing this on a newly NTFS partitioned 80GB drive, then installed the 400GB drive as a second storage drive, used Seagate DiscWizard for Windows to partition the drive with one NTFS partition (also tried multiple NTFS partitions). XP still said the drive was 128 GB. I have a ASUA A7V133 motherboard with upgrade BIOS 1010B. The motherboard has Primary IDE, Secondary IDE, Primary ATA100, Secondary ATA100 connectors. I have a CD ROM connected to the Primary IDE channel, nothing connected to the Secondary IDE channel, Western Digital 80GB drive on the Primary ATA100 channel, and on the Secondary ATA100 channel a Maxtor 27GB drive was the master and the Seagate 400GB drive was the slave drive (I have also tried changing the positions of the drives to no avail). I had XP SP2 installed on the 80GB and 27GB drives and could boot from either one (this configuration worked fine until the reinstallation of XP).

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When I boot the 80GB, 27GB, 400GB system, during the BIOS screens, I see D0

as 80GB, D1 is blank, D2 is 27GB, D3 is 372GB.

Seagate DiscWizard for Windows sees the full size of the drive and all NTFS partitions.

I do not have the 400GB drive jumpered for 128GB operation.

I have deleted the IDE drivers and reinstalled as mentioned in one thread.

I have deleted the motherboard Promise IDE controller driver and reinstalled.

I have tried using XP Disk Management to reformat the drive as mentioned also.

I have erased the 400 GB drive using a DiscWizard boot floppy, then connected the 400GB drive to a XP SP2 system, drive doesn't appear in Explorer, gone to Disk Management, Initialized disk, formatted disk, disk is still shown to be 128GB.

I have now started from square one. I installed XP from my original disk onto the 400GB drive attached to the Primary ATA100 channel. The BIOS screens show the drive on D0 as 372GB. Partitioned drive as 128GB NTFS partition – only choice I had with original XP installation disk. I have installed all of the recommended updates, including SP2, from the Windows Update website. I still only see a 128GB partition in the Disk Management window even though one thread said that after installing SP2, I should be able to right click on the available space on the drive and make new partitions.

Does anyone know where I can look in WinXP SP2, I can look to see what is going on? I have looked in the registry for the EnableBigLba value. There is no HKEY\_LOCAL\_MACHINE entry for it, but I believe that somewhere in the discussions I have read that it is not necessary in SP2. I appreciate anyone's help.

Danny:

I assume you know that there are two – and only two – requirements for the XP OS to recognize the full capacity of large–capacity disks, i.e., disks > 137 GB (approx 128 GB binary)...

1. The motherboard's BIOS must support large–capacity disks; and
2. The XP installation CD must contain SP1 and/or SP2 at the time the OS is installed and the large–capacity disk is present in the system.

That's it. Those two requirements.

From what you've indicated it appears your ASUS motherboard does support large–capacity disks.

You say you installed XP from your "original disk" when that 400 GB HDD was connected. It appears from your description of events that the XP installation CD you used at that time did \*not\* include either SP1 or SP2. Is that right? If so, that would account for the fact that only 128 GB of that disk was originally recognized. When you later installed SP2

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(presumably) the full capacity of that HDD (approx 372 GB) would be recognized, however, the disk space above the 128 GB originally detected would (or should) be reflected as "unallocated space" in Disk Management; disk space that you can partition & format.

Are you indicating that Disk Management does not show that "unallocated space"? Should that be the case – you're sure of that – what I would suggest is to use Disk Management to delete the present 128 GB partition, reboot the machine and using DM (that hopefully now reflects the full capacity of that disk) partition & format the 400 GB HDD as you please. All this presupposes that there's either no data on that 400 GB HDD or if so, any data that you need. And again, it assumes your BIOS supports large-capacity disks and your XP OS contains SP1 and/or SP2.

Anna

48 bit support appeared in the 1009 BIOS. So his 1010 BIOS should be OK.

<http://www.a7vtroubleshooting.com/info/bios/index.htm#133>

The driver for the Promise Controller listed here, says it supports 48 bit LBA. I understand you have to be a bit careful with Promise, to match the driver version to the BIOS or add-in ROM it is using. So maybe this is appropriate for the latest BIOS, but I don't know where to look to verify that. I think this is for the Promise chip when it is in non-RAID mode. (PDC20265R)

[http://support.asus.com.tw/download/download\\_item.aspx?model=A7V133&product=1&type=Latest&SLanguage=en](http://support.asus.com.tw/download/download_item.aspx?model=A7V133&product=1&type=Latest&SLanguage=en)

Version 2.00.0.29 2003/03/26 update  
OS Win98SE / WinME / WinNT / Win2K / WinXP  
Description Promise Controller UltraATA Driver REV:2.00.0.29  
Support 48bit LBA HDD  
File Size 145.68 (KBytes)

According to this, the B29 driver is still recommended for the 1010 BIOS. (Post by Tuan.)

[http://groups.google.ca/group/alt.comp.periphs.mainboard.asus/browse\\_frm/thread/c4964e55aff29844/f69070cc4458e](http://groups.google.ca/group/alt.comp.periphs.mainboard.asus/browse_frm/thread/c4964e55aff29844/f69070cc4458e)

Rather than just downloading that driver and slapping it in, I'd check to see what driver version is currently in use. That Promise chip won't work without some driver in place, so there should already be something there.

Also, I'm not that crazy about the Disk Wizard, as it can use a DDO and fix all your problems :-). I don't know anything about the subject of DDO, but post #6 here has some links that help explain what the Disk Wizard type applications can do.

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[http://groups.google.ca/group/comp.sys.ibm.pc.hardware.storage/browse\\_frm/thread/404f66e93aed6f00/64d6e3631fd0](http://groups.google.ca/group/comp.sys.ibm.pc.hardware.storage/browse_frm/thread/404f66e93aed6f00/64d6e3631fd0)

48 bit LBA is why I don't have any disks larger than 120GB :-)  
Haven't had a problem yet :-) :-)

Paul

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