

## Windows 95/98/ME – PC runs slower than normal after a Windows or Motherboard upgrade

*If you have just upgraded or reinstalled your Windows operating system, and you find that your PC seems to be running slower, then this document may be for you.*

*When you upgrade or reinstall your Windows operating system, what sometimes happens is the **DMA** setting gets disabled on your Hard Disk Drive, CD-ROM Drive, DVD Drive, or CD-Writer, and as a result your PC runs slower.*

***DMA** (**D**irect **M**emory **A**ccess) is a setting which is supported by ALL new hard disk drives. Additionally, all Hard Disk Drives of 4Gb capacity or bigger, all CD-ROM Drives of 36-speed and above, all DVD Drives, and all CD-Writers, support DMA mode. When DMA is enabled, the access speed to the drive in question is increased significantly, and as a result this speeds up the performance and feel of the whole PC.*

*This document applies if you have just...*

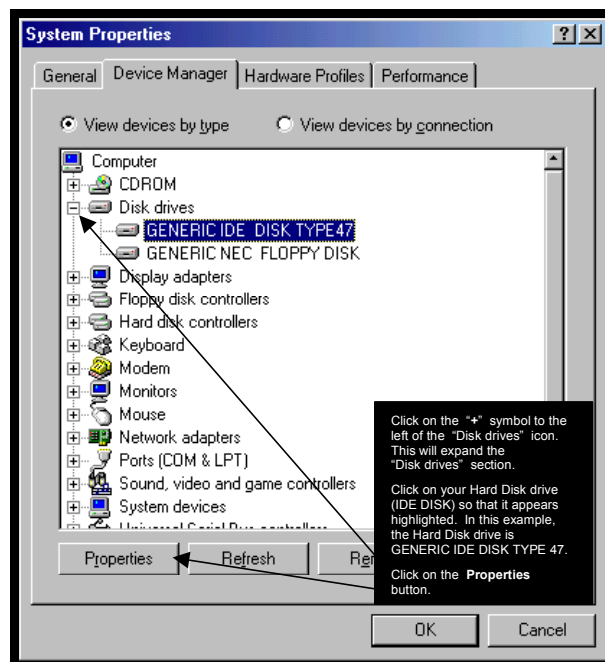
- *Re-installed your Windows operating system (Windows 95/98/ME)*
- *Upgraded your Windows operating system to Windows 98/ME*
- *Replaced the motherboard in your PC*
- *Re-installed or changed the motherboard drivers in your PC*

### **How this document came about**

*This document came about because many of our AnswersThatWork users would re-install Windows 98 on their PC and then find afterwards that everything was running much slower. Example : before the re-installation of Windows 98, this end-user used to be able to burn a 700Mb CD in 3:45 minutes on his CD-Writer, but after the re-installation of Windows, it would take 5:30 minutes. This happened as a direct result of the DMA option against the CD-Writer being disabled !*

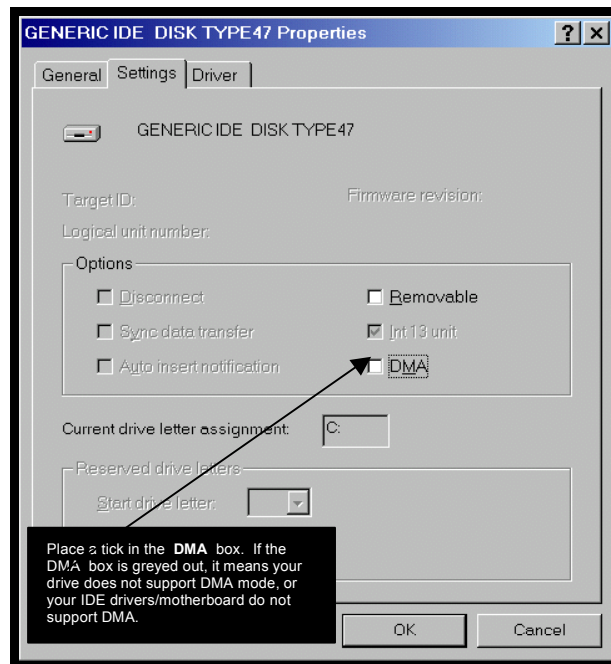
## Enabling DMA

- Click on **Start \ Programs \ Control Panel \ System**.
- Position yourself on the **Device Manager** tab.
- Click on the “+” symbol to the left of the “Disk drives” icon. This will expand the “Disk drives” section.



- Click on your Hard Disk drive (IDE DISK) so that it appears highlighted. In the above example, the Hard Disk drive is “GENERIC IDE DISK TYPE 47”. *Depending on your PC, you may have more than 1 Hard Disk drive installed.*
- Click on the **Properties** button.

- ☐ Position yourself on the **Settings** tab.

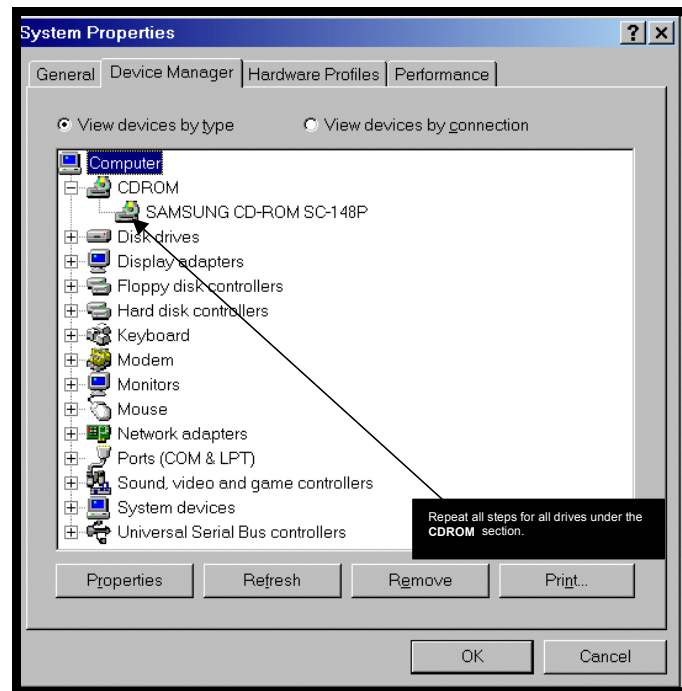


- ☐ Place a tick in the **DMA** box. If the “DMA” box is greyed out and blank, it means your drive does not support DMA, or that your motherboard IDE drivers do not support DMA.
- ☐ If you get prompted with the below dialogue box or similar, click on **OK**.



- ☐ Click on **OK**.
- ☐ Click on **Close**.
- ☐ When you are prompted to restart the PC, click on **Yes**.

- Repeat the above steps for all hard disk drives installed on your PC.
  
- Also, repeat the above steps for ALL drives under the **CDROM** section of the **Device Manager** tab, as shown below :



- That's it. You're done.

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