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## How to Choose a CD, DVD or Hard Drive

There are many devices which can be used to store or write data in your computer system. The options include hard drives, USB/Firewire storage devices, CD writers and DVD writers.

Hard drives are a very essential (and delicate) piece of equipment and are a standard feature on most computers. CD writers are also very common.

USB/Firewire storage devices and DVD writers are currently getting more popular with consumers.



Some hard drives, CD and DVD drives available in the market

This article will give you some tips on selecting proper data storage devices for your PC.

### Hard Drives

First, let's cover hard drives. We'll look at some hard drive terms like ATA and SCSI, as well as cover the factors to consider when buying a new drive.

#### ATA and SCSI

Let's get some terminology out of the way before we go further. In the hard drive world, there are two data access standards, ATA and SCSI (pronounced 'Scar-Zee'). The ATA standard is split further into Parallel ATA (PATA) and Serial ATA (SATA). Most of normal hard drives we're used to rely on the PATA standard. Some newer hard drives use the SATA standard.

SATA allows transfer speeds of up to 150 MBs while PATA gives up to 133 MBs. However, to use SATA, you'll need a Serial ATA controller, a SATA drive and a SATA power cable. The speed difference between PATA and SATA is also not significant unless you have a high-end SATA drive.

The SCSI standard is a very fast hard drive standard used for professional computer systems which demand extremely fast data access. SCSI drives provide an access time of about 9.5ms - which I feel is really not needed for average home use.

### **Disk Space vs. Price**

An important factor to consider is the disk space versus price ratio. When you look at the 30 GB, 40 GB and 80 GB PATA hard drives, you'll find they are very close in price. If you don't mind paying an extra \$20 or so, I'd say go for the maximum disk space you can get! If you do a lot of graphics or video editing, you may want to consider larger drives like the Seagate 160 GB hard drive. For the average home user, however, 40 GB to 80 GB of disk space is plenty.

### **Drive Speed**

If data access speed is important to you, you can go for faster SATA drives or SCSI drives. But remember that these drives come at a price premium and may not be necessary for average home use. Another option is to use a RAID setup where multiple hard disks are used to gain drive performance and/or data integrity.

## **CD Writers**

CD writers are practically standard issue on all PCs these days. Prices are ridiculously cheap, so there's no reason not to get one, unless you prefer a DVD writer.

### **Drive Speed**

For CD writers, you should generally look for a 40X record speed or faster. If you buy anything that is slower, it will definitely waste a lot of time when you're burning CDs.

### **Internal or External**

You can choose between an internal or external CD writer. Internal drives are best suited for desktop PCs and are the cheapest option. If you want portability and don't mind paying a little more, you can get a FireWire or USB 2.0 external CD-RW drive.

## **DVD Writers**

DVD writers are the newest rage in the consumer data storage market. They let you store up to 4.7GB on a single disc several times the amount of on a CD-RW disc. So let's look at some factors to consider when purchasing a new DVD drive.

### **Drive Speed**

One factor to consider when buying DVD writers is drive speed. Most DVD-R drives write at 8X, with some older models supporting only 4X. Personally, I don't think there is significant speed difference between a 8X and 4X drive - so don't spend extra money unnecessarily if you don't have to.

### **Compatibility**

There is a huge range of DVD media formats out there (DVD+R, DVD-R, DVD+R DL), represented by various brands. You need to consider compatibility of your DVD writer with these DVD discs. DVD-R and DVD+R formats are both very compatible with existing DVD players and DVD-ROM drives - so try to get a player that supports those.

### **Internal or External**

You can choose between an internal or external DVD writer. Internal drives are cheaper but it also means you need to deal with the installation hassle and non-portability. External DVD writers come with Firewire or USB 2.0 interfaces and may well be a better choice if you need to move your data around a lot.

## Conclusion

To purchase a good storage device, be it a hard drive, CD writer or DVD writer, you need to consider what price you're willing to pay for a given set of features. In my opinion, the DVD burner is fast becoming an essential item in the average home user's PC. If you're building a new computer, you should definitely consider buying a DVD writer on top of your standard hard drive.

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The [Planar PE1901](#) is a 19 inch LCD monitor that features an ultra-thin design and exceptional visual performance. If you're thinking of stepping up to a 19-incher, the Planar PE1901 stands above the rest in image quality and value. This monitor also includes the eTrust Internet Security Suite software which provides protection against viruses and other online threats.

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