

Learn about HDD hard drive

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1. Dissecting the components of a hard drive
2. Find out how an SSD works
3. Cause and fix slow external hard drive on Windows 10

Hard drives are sometimes called C drives because Microsoft Windows assigns the C drive letter by default to the primary partition on a computer hard drive.

1. Why is the default drive on a Windows computer a C and not A or B?

Although this is not an accurate term to use, it is still common. For example, some computers have multiple drive letters (for example, C, D, and E) that represent areas on one or more hard drives. Hard drives also have names such as HDD (its abbreviation), hard drive, hard disk, fixed hard drive. Regardless of the name, the main hard drive usually contains the root directory of the operating system.

HDD manufacturers

Some popular HDD manufacturers are Seagate, Western Digital, Hitachi and Toshiba.

You can purchase these hard drive brands and hard drives from other manufacturers at the store or online such as through the company's own website or on sites like Amazon.

Physical description of the HDD

Hard drives are usually about the size of a paperback book but are heavier.



The edges of the hard drive have threaded holes, pre-drilled to easily fit into the 3.5-inch drive bays in the computer case. You can also mount it on a larger 5.25-inch drive with adapter.

The back of the hard drive contains a port for the cable connected to the motherboard. The type of cable used (SATA or PATA) depends on the type of drive but is always included while purchasing the hard drive. In addition, there is a power supply connection.

Most hard drives have a jumper installed on the back, which determines how the motherboard recognizes when there is more than one hard drive. This setting varies depending on the hard drive, so you should check with the hard drive manufacturer for more details.

How hard drive works

Unlike variable storage RAM, the hard drive stores its data even when the power is turned off. This is why you can restart the computer, power off the HDD but still have access to all the data when you turn it back on.

Inside the hard drive are the sectors located on the tracks, stored on rotating platters. These platters have magnetic heads that move with the actuator arm to read and write hard drive data.

Types of hard drives

Computer hard drives are not the only type of hard drives and SATA, PATA are not the only way they can connect to computers. There are different types of hard drive sizes, some are very small and some are quite large.

For example, a regular flash drive also has a hard drive but does not spin like a traditional hard drive. The flash drive has an integrated solid state drive and connects to a computer via USB.

Another USB hard drive is an external hard drive, basically a regular hard drive that is placed in its own enclosure to safely exist outside the computer case. They usually communicate with the computer via USB, but some hard drives use FireWire or eSATA.

Storage capacity

Hard drive capacity is an important factor in determining whether to buy a specific device such as a laptop or phone. If the storage capacity is relatively small, that means files will fill up faster, while hard drives with more capacity can handle more data.

Choose the hard drive based on the actual storage capacity depending on the circumstances and perspective. For example, if you need a tablet to store lots of videos, you'll need a 64GB hard drive instead of an 8GB hard drive.

The same is true for computer hard drives. If you store a lot of videos or HD images, you need a large hard drive. In the case of offline storage, at home, you need to buy an internal or external hard drive with a capacity of up to 4TB.

Common hard drive tasks

A simple task that you can do with a hard drive is to change the drive letter. For example, while the primary hard drive is often called the C drive and cannot be changed, you can change the external drive letter from P to L (or any other letter accepted).

One easy thing to do with a hard drive is to check the amount of free space on it. This is especially important if you experience low hard drive space and to maintain a smooth system. You can uninstall unused programs or programs that are too large, delete files, or copy them somewhere if you're running out of disk space.

You need to format the hard drive or partition it into parts before you can install the operating system or store files. When installing the operating system for the first time, it usually means that the new hard drive is formatted and provides the file system. On the other hand, a disk partitioning tool is very useful in this situation.

1. Pros and cons of hard drive partitioning

When working with hard drive defragmentation, free defragmentation tools are available that can help reduce fragmentation. Defragging hard drives can sometimes make your computer run faster.

Because the hard drive is a place to store all the data in your computer, when you sell a hard drive or reinstall a new operating system, you should safely delete the data from the drive.

Fix hard drive problems

Hard drives in computers are used many times, each time doing something related to reading or writing data to disk. So it is normal when the hard drive has problems.

1. Computer hard drive quickly broken, the cause?

One of the most common problems is that the hard drive is making noise and the first step in troubleshooting a hard drive is to check the hard drive.

Windows has an integrated tool called chkdsk, which identifies and even fixes hard drive errors. You can use the graphical version of this tool on most versions of Windows.

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