

Hello and welcome.

Thank you for your interest in the “CD Duplication For Beginners”

This guide has been designed to help introduce you to the basic process of CD duplication. Whether you just want to copy a few CD's of your own to share with family and friends or you want to know how to create a large number of CD's for your business. This course will help you decide what you need and how to get started.

The first thing you must know, is that there are many different types of CD duplication. Some of them happen to be illegal, which is why you'll need to make sure that the CD's you are duplicating are allowed by local laws and regulations.

If you are duplicating CD's with your own music, photos, video or content there is no need to worry about violating any laws. However, if your CD's have anything on them that you did not create it is important that you check with the creator of the content to make sure that you are allowed to reproduce it, especially if you are planning on selling the CD's that you copy.

Chances are you already have everything you need to get started on your PC or Mac. You can copy many types of media, including pictures, video, audio, and even data

from your computer. If you are unsure just search your computer's help files for "copying CD's" and you should find the information that you need.

The duplication process is basically taking one CD and making a copy of it, or if you prefer, many copies of it. A CD can store information of many forms, such as pictures, movies, data, and even music. Therefore, you'll need to determine which type of duplication you are interested in.

You'll also need to think about how many copies you plan to make as well, as the costs of equipment will vary. Most computers that you buy these days will come with either a CD-RW drive or a DVD-RW drive, and the software you'll need to make copies of CD disks.

It's important to realize from the start that the duplication and replication process is the same, regardless of content, as well as the differences between the CD duplication and replication process.

The duplication of CD's refers to burned CD's, such as the CD burner with a personal computer. Burned audio CD's often have playability issues in some CD players, normally car stereos, portable CD players, and even older types of CD players. The duplication of CD's has much faster turn times, simply because a stamp doesn't need to be made.

If you have a DVD-RW drive, you can copy both DVD and CD disks. These drives are normally the way to go, as they can copy virtually anything you stick in the drive.

Before we close this lesson I want to share some basic CD terminology with you. These are the most common terms that relate to the CD duplication and they will help you become more familiar with the process.

BLER

Block Error Rate. This is the raw digital error rate before any type of error correction.

CD

This is the Compact Disc, a digital medium that's formed of a 12cm polycarbonate substrate, a reflective metalized layer, and a protective lacquer coating.

CD-R

Compact Disc-Recordable. The term CD-R is used to describe the technology of recordable CD along with the equipment, software, and media that are used to make the recordable disks.

Data layer

With CD-R media, this is the organic dye that is sandwiched between the polycarbonate substrate and the metalized reflective layer of the media. CD-R disks don't have any data on them at all until they are recorded.

Injection Molding

This is a manufacturing method where the molten material is forced into a mold, normally under high pressure, then cooled so that the material will take on the shape of a mirror image in the mold.

Media or blanks

CD-R media are the disks that are used to record digital information using a special recorder and premastering software with a computer. These discs are made of a polycarbonate substrate, a layer of organic dye, a metalized reflective layer, and a coating of lacquer for protection.

Organic dye

The data layer of CD-R media is made from a dye that is melted during the process of recording. Where the dye is melted, becomes opaque or refractive, scattering the reading laser so that it isn't reflected back into the reading sensors.

Reflective layer

This is the metal layer that sits on top of the dye that reflects the laser beam back to the reading assembly. This is normally 24k gold in CD-R disks, although it can be silver as well.

CD duplication is fairly easy for everyone to learn. You can back up a lot of things, save pictures or video of your special memories or create music, movie or information products that you can sell. Once you learn the process the choices are entirely up to you.

Look for your next lesson soon we will be talking about choosing the right equipment and duplicating within your budget.

Now it's time to talk about choosing the right equipment and some tips for duplicating CD's within your budget. We will also cover the topic of choosing a professional company if you need to mass produce your CD's.

As we briefly discussed in the first lesson, there are many benefits to CD duplication and CD-R disks that it's mind boggling. If you've never used a CD-RW drive or dealt with CD-R media, you'd be amazed with everything you can do once you learn the process.

Writers, those that are self employed, musicians, small businesses, hobbyists, and even fortune 500 companies can all benefit from the brilliance behind CD-R technology. Not only to do they save you quite a bit of time, but they are also very affordable and versatile.

With the increasing amount of CD duplication options for software and equipment, its very important that you read the reviews for the different types of equipment you are considering before you make that final decision.

The best CD duplication equipment for your project will all depend on the volume of CD's you plan to duplicate at a time, and the amount of money that you are planning to invest on a particular piece of equipment.

Your best source for reading reviews of CD duplication equipment is on the Internet. There are many different consumer websites out there that will allow users to post reviews of equipment, then rate them on a five or ten point scale. Anytime you are reading reviews, it's very important that you get your information from a trusted and reliable source.

Websites that are up by the owner of the product, or those that are trying to sell you specific hardware normally aren't the best to turn to when you need to read a review. No one who is trying to get you to buy a certain piece of hardware is going to tell you about the flaws the

equipment has, or even let you know about a competitor who has a similar item for sale at half the price.

All across the internet, you can find many different websites that offer the information you seek. There are several that offer forums, where other users will tell you honest opinions and give you feedback about the equipment they own. This can be a great way to find out about the duplication equipment you are interested in and what else is available for you to purchase.

Another excellent place to look for CD duplication equipment reviews is trade magazines and even electronic magazines. Magazines will normally test equipment then share their opinions with their readers. Always be sure when you are reading a review that it's an article sponsored by the magazine and not a paid advertisement.

CD duplication reviews of equipment are a great resource when trying to find a piece of equipment to use. With so many on the market, it's always good to have resources when you need to make an important decision. A review will also tell you everything the label and description of the product leaves out, which can help to ensure you get the best piece of duplication equipment for your hard earned money.

While most equipment that you purchase will come with the software that you need to use it there are many software options available that you may want to consider depending on the type of project you are working on.

As with equipment you can research variety software programs online. Most software is user friendly and offers you a variety of options and you should do some searching and comparing before you decide which program is best for your needs.

There are a few free software programs available for download including; ISO Recorder, Deep Burner, and Windows Media Player.

If you prefer, you can also purchase quality programs as well. Some examples of these include Nero, Roxio, and Sonic Record Now. While the programs that are free have the same basic burning capacity, those that cost money will give you more features and overall flexibility.

Now let's go over a few more tips for duplicating CD's within your budget.

If you plan to produce, market, and sell your own CD's, you have the need for high quality CD duplication. If you have the need for great quality and great prices, you should think about things before you turn to one company to do all of the duplicating for you.

No matter what you use it for, CD duplication is an expense that shouldn't put a big dent in your budget at all. Below, you'll find several tips on how to duplication within your budget.

- Shop and compare

All companies out there need to be able to find the company that is going to give them the best possible price. If you have access to the internet, you can do this online. Look from one company to another until you find the best price that fits your budget.

- Keep within your budget

Although this is easier said than done, it's very important to find a company that can work within your budget or you'll need to get a bigger budget. Even though you may not realize it now, doing these types of things on credit can hurt you later on down the road.

- Quality and quantity

If your music or other CD's mean a lot to you or if you need a large quantity of CD's duplicated then you may want to consider putting them in the hands of a professional duplication company that will guarantee the quality of their work.

Look for a company that offers great rates, package deals, and quality recordings. Most CD duplication companies offer packages that will include inserts, tray cards, and even packaging should you choose to take your duplicates to retail sale.

You can also choose to have your graphic work imprinted on the inserts or have the CD duplication company design a totally new design for your very product. If you are worried about the inventory, barcodes can be imprinted on the CD case or the sleeve by the same company.

While CD duplication is a must have for the movie and music business. There are many other businesses that need this type of service. If you are developing a product you'll want to have only the best so you should take the time to find the best equipment or company for the job.

Look for your next lesson soon we will be talking about how to ensure high quality results when you are duplicating your CD's, some basic preparation tip's and the different options for storing your newly copied CD's.

Now it's time to talk about how to ensure high quality results when you are duplicating your CD's, some basic preparation tip's and the different options for storing your newly copied CD's.

Let's start with disc quality.

One of the biggest problems when it comes to copying CDs occurs when discs are produced using older equipment and then end up failing when you try to use them. Often they will fail when you first try to record on them. There is however, a likelihood that the disc will complete a burn and the media won't play at all.

The frustration of taking your photo or video treasures and putting them on CD or DVD and then deleting them from your camera or computer only to realize that the copy is corrupted is far too much to risk.

For data and personal pictures that are important, you should always buy quality CD media like Verbatim, who builds their reputation for quality and durability by using only advanced recording dye and other types of technology to produce high speed discs.

The stability of the recording dye is very critical as heat, humidity, oxygen, and even UV light can degrade the dye. Verbatim research has also proven there is a strong correlation between the production and bonding processes of disc quality.

When copying the CD's yourself it is important that you try playing the disc back to ensure that it copied correctly before you go ahead and delete the source file. This way, you won't have to worry about losing your

precious files and photos when you remove the source from your computer.

When it comes to mass producing you will create a master CD or DVD disk to provide to your CD or DVD vendor for replication or duplication of the media.

When creating your master disc always use the highest quality media that you can obtain. Do your research, take your time, then choose a brand that will produce a high quality disc each and every time you duplicate or replicate.

You will want to avoid copying from a network source. If the source files for your disk are on a network drive, copy the files to your local disk before you burn a disc. If you can't move the files to your local drive, try using the copy to hard drive first feature.

When doing this, your burning software will create a temporary image file during the burning process. Once the burning has been completed, the temporary file will be deleted.

You should always avoid burning on a laptop computer that is running on low battery power. The fluctuations that will occur in the available battery power may cause you to have poor results in your duplication.

Always make sure that you finalize your disc. If you fail to finalize, the disc won't play back. Finalizing will also help increase the reading compatibility in other CD-ROM drives.

Never use the packet writing method to burn a master disc. This method is very common with burning drives that have re-writing capabilities. This method will produce discs that can't be read on many CD-ROM drives.

Avoid any type of impact or movement of the drive during burning. Doing so can cause the laser to skip or jump tracks, which will lead to errors or a bad disc.

If available, use the "burn-proof" feature. This feature will allow the drive to slow down the burn speed in the event the computer can't supply the data fast enough. Although this can increase the burn time, the quality of the disc will be much better.

You should avoid having multiple applications open when burning, especially those that access the Internet or a network. This can hinder your computer's ability to supply data to the burner drive at the necessary rate.

By following these simple tips, you should have no problem producing a high quality master disc. Because your master disc is something you'll want perfect, which is why you shouldn't take any risks.

Before we come to the end of this lesson I want to talk a little bit about storing your newly duplicated CDs.

There are many different storage alternatives for your CD's. Choosing the right one depends on how many CDs you need to store and how long you plan to keep them. Let's go over a few alternatives:

CD jewel cases

You have probably owned these before, as they are the most common. They can hold your CD cover art and are very easy to line up on a shelf. Keep in mind that they do break rather easily and they take up quite a bit of space.

Plastic CD sleeves

Plastic sleeves are cheap and thin, so they are easy to afford and easy on shelf space. Since they are so thin, they obviously don't offer a lot in terms of protection. For long term storage, they generally aren't recommended.

Paper sleeves

For short term storage needs, paper is very cheap and doesn't use much space. Similar to plastic sleeves, paper is thin and doesn't offer very much protection.

Paperboard sleeves

Paperboard sleeves are much thicker than paper so they will protect your discs. They are also inexpensive, although they can be hard to seal.

Tyvek CD sleeves

Tyvek sleeves are cheap and they don't take up a lot of space. For long term storage, Tyvek is normally recommended.

CD-ROM disc cases

These types of cases can hold a lot of CDs in a small space and they may even help to keep out dust. They do however, make reading labels a bit hard, they keep CDs out of site, and they will take up a lot of space.

CD spindles

Spindles are cheap and they hold several hundred CDs in a small stack. Sorting through them is hard if you need one specific disk, which makes it something that isn't normally recommended.

As you begin duplicating your own CD's it is important that you keep up with the technology. Because it is always

improving and even though copying a CD is quite easy, learning how things work is a little more complex.

But, now that you have few facts and some basic know how I'm confident that you'll be able to duplicate CD's just like the pros do it.

Thanks a lot and see you soon,
Alessandro Zamboni