



**SMARTCUT TO THE LOWEST CD-R & DVD-R PRICES ON THE INTERNET**

There's nothing wrong with price shopping, especially in today's tight economy. We all look for the best pricing to meet our budget. These SmartCuts to DVD-R and CD-R duplication and replication are here to help you shop for services.

**\* Q: WHAT IS THE DIFFERENCE BETWEEN "REPLICATION" AND "DUPLICATION"?**

**A: Replication involves making DVD or CD copies in large quantities by manufacturing them.** This process consists of creating a glass master, from which stampers are made to manufacture copies of the disc through injection molding, gluing the layers together, and application of reflective and various other coatings.

Replicators must be very quality conscious and practice careful quality inspections throughout every phase of the highly complicated disc making process; which begins in a "clean room environment" and proceeds inside enclosed automated gluing and layering machines, finally drying to await label printing.

The cost in making the initial stamper runs \$400 - \$1750, depending upon the number of disc layers. Consider this factor when shopping for the lowest prices. How much care is going into creation of the stamper?

It is not recommended that you consider replication if you don't require 1,000 or more discs.

**A: Duplication provides the best answer for your needs where shorter "runs" of 1,000 or fewer discs are required.** Here, blank DVD-Rs are "burned" from your master in quantity. After burning (or before burning, depending on the supplier's practice), labels are printed onto each disc.

**\* Q: WHY DO PRICES VARY SO MUCH FOR DUPLICATION SERVICES?**

**All CD-R and DVD-R blank discs are not created equal.** Some companies buy unlicensed, cheaply manufactured recordable blank discs, available at a very low wholesale price.

Consider, while shopping for the lowest prices:

- Manufacturing of CD-R and DVD-R "blank" discs is nearly identical to the manufacturing of a replicated disc. The only difference is that replicated discs contain data on their plastic "substrate" layer, while blank "R" discs have a spiral "path" molded into the substrate, to guide the laser in burning the data onto an added dye layer coating. Since the dye layer is added in the manufacturing process, DVD-R and CD-R blanks are even more critical to make. The same machines are used in both manufacturing processes.
- Royalties are charged by the patent owners, Philips and Sony. These payments equal approximately ten cents per manufactured disc. Be sure to ask, while shopping, if the company quoting prices to you includes licensed products. It is not legal to manufacture DVDs or CDs without paying royalties to the patent owners. You could end up paying for these royalties later, if they were not included in the original quote you were given!
- Quality Control is essential, to assure that your finished DVDs and CDs do not get rejected or sent back to you by customers. Be sure to ask about this important process, since it strongly affects the price you are being quoted for the work to be performed.

**\* Q: HOW LONG WILL A DVD-R OR CD-R LAST?**

**A: Highest quality Rs are tested and proven to last 100 years, if cared for carefully!** Cheaply manufactured ones can be unplayable in several months! The biggest factor is the composition of the dyes used in manufacturing. Cheaper dye fades upon exposure to sunlight, causing errors in the reading of the data.

If your project is a music album, beware of lower cost CD-R stock. Many music albums are stored in jewel cases, which allow ultraviolet rays to penetrate packaging and eventual loss or damage to the data layer dyes. Worse, some fans store their CDs in the car, inside a visor album, in the direct sunlight! This spells doom for burned inexpensive CD-Rs.

**\* Q: DO SCRATCHES AND FINGERPRINTS KEEP DISCS FROM PLAYING PROPERLY?**

**A: Careful handling of discs is important for longest life and service.** But storage is the most important factor of all. All DVD-Rs and CD-Rs should be stored in quality packaging, and kept out of the sunlight, if possible. Extreme heat will damage both duplicated and replicated discs.

Fingerprints and scratches usually do not affect the data, since the laser beam focuses through the outer substrate to the reflective data layer beneath.

It is important to keep DVD-Rs clean prior to burning them, since a fingerprint or hair on the surface of an unburned DVD-R or CD-R will reduce the intensity of the burning laser, writing in an error that cannot ever be corrected. This is why quality control throughout the production process is vital to assuring your product will play in your customer's stereo, computer or DVD player.

**\* Q: HOW DOES DISC WIZ ENSURE THAT MY CDs AND DVDS ARE TOP QUALITY?**

**A: Upon receipt of your master, we use a software program to analyze the data on the disc.** We always ask our customers to supply us with 2 or more masters, so if we discover data errors we can substitute masters to find the one with the least recorded-in errors.

All masters burned at even a low speed contain some errors. Our evaluations enable us to utilize error corrections to fix missing data sections when the master is transferred to our hard drive for duplication.

Next, we burn a test DVD-R to compare the data on that disc with the masters you supplied. This analysis will indicate whether the duplicated discs will be exact copies of your original. Once the hard drive "burn master" is ready and the data is complete, we begin the process of duplication to multiple DVD-R blank discs.

As copies are made, we select random discs for further quality analysis. This process consists of comparison of the data on the duplicated discs with the original source data from the hard drive.

Finally, duplicated discs are spot checked in various player platforms for "real world" compatibility. Of all quality control processes available, this series of testing the final discs is the most important, since certain duplication burners can produce discs that will not play on all types and brands of players. Older CD and DVD players, computer and laptop players, blue ray and HD DVD players, game console players; they all encompass different circuitry which may prove to prevent their unique drive(s) from recognizing a new disc, whether replicated or burned on CD-R or DVD-R.

The burning equipment at Disc Wiz is of modern, state-of-the-art design, guaranteed to produce discs that "cross over all platforms" - so you can be confident that what's inside the package is the best your money can buy!

**\* Q: QUALITY MATTERS WITH MY PROJECT, DO YOU HAVE MORE ADVICE?**

**A: Yes. Don't just shop for the lowest price.** While not spending more than necessary is important, even more important is receiving quality service, quality advice and quality product for your money.

And the good news is that at Disc Wiz, you receive all of these at very competitive prices.

Do you have more questions?  
Just call or email us, today.

**(530) 895-5440**  
**info@discwiz.com**

Nobody is better than the Disc Wiz<sup>®</sup> team at joyfully and productively collaborating with you to keep your creative process flowing and your new DVD on budget and on time. We never quote you a price, then place your project on a conveyer belt for "assembly." At Disc Wiz<sup>®</sup> we're on a first-name basis in an ongoing working relationship with you, as the producer. When you call or e-mail us, you are always communicating with a person- not a department.

Want more DVD pre-production, production, post-production and marketing tips? Send us an e-mail and we'll send you our growing "DVD Producer's Q&A" at no charge. Send a new Question and we'll publish it - with our Answer - in this free internet resource for DVD writers, directors, camera operators and producers.

**† Receive updates regularly by visiting [www.discwiz.com](http://www.discwiz.com) and sign up for the newsletter.**



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