



Replication vs. Duplication: What are the Differences and Does It Matter?

Speaker Fulfillment Services has been providing manufacturing of information products for our clients for a few years. Typically these products contain CDs and/or DVDs as part of the package. We're frequently asked if we replicate or duplicate the discs we produce for people. People want to know what are the differences between the two and does it matter at all? This article takes a look at the two methods and what it means to you.

CD/DVD duplication in its purest definition means to copy discs. Actually, there are two different means to copy a disc - replication and duplication

Replication - Starting with a glass master that contains the data for the disc, a metal stamper is formed. The stamper is loaded into a molding machine and molten polycarbonate is injected into the mold thereby manufacturing the disc with the data stamped into the disc. A reflective aluminum layer is applied and the discs are printed with artwork.

Duplication - Starting with pre-manufactured blank recordable discs, the data is "burned" onto the discs one at a time. The process takes several minutes per disc depending on the speed of the recorder and the amount of information you are recording.

Does It Matter?

Some people will tell you not to duplicate audio or video but only replicate. Others say there's no difference at all. There is no data difference between a processed duplication and a glass mastered replication disc.

Duplication - Starting with blank media, your discs are duplicated by "burning" your data onto them. . . .

- Ideal for short runs
- Fastest turnaround
- Some drives cannot read recordable media

Replication - Starting with a glass master, your discs are replicated by "stamping" your data into molten plastic as they are molded. . . .

- Ideal for large runs (1000 units +)
- Longer turnaround vs. duplication
- Compatible with all discs.

But, there are some differences and sometimes they do have an impact. The reality has more to do with the playback equipment than the manufacturing process. Older, “set top” DVD players (hooks to your TV) sometimes have problems playing duplicated discs but rarely have problems with replicated discs (rarely doesn’t mean never).

Industry experts estimate that among the current installed drive base (computers and players) about 98% of the CD players will play duplicated CDs, and about 90% of the DVD players will play duplicated DVDs. Recordable media is somewhat vulnerable to sunlight.

Printing

No matter which way you go, your discs should have a label. Why? So people will know which side is up and which side is the read side of your disc. Replicated discs are typically silk-screened. Duplicated discs are usually either thermal printed or paper labeled. Most of our clients are doing small to mid-sized runs (less than 500 units) so these discs are duplicated.

The ultimate decision is yours of course as to whether you’ll have your discs replicated or duplicated. You’ll have to weigh the larger up front cash commitment with replication vs. your ability to sell your product and the potential differences between replicated and duplicated discs.