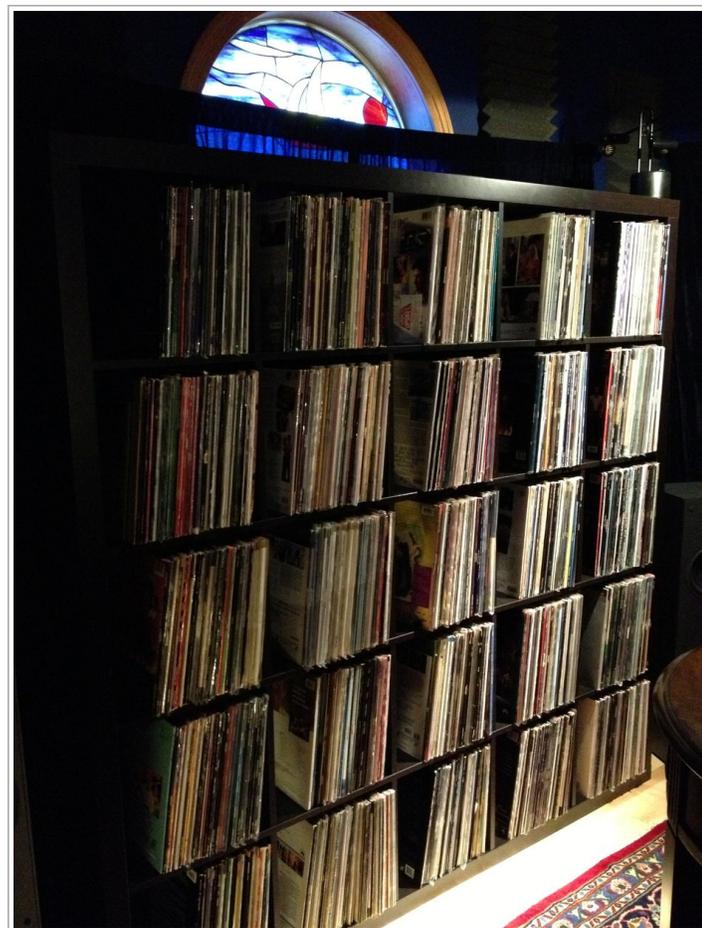


## LASERDISC MEDIA STORAGE SOLUTIONS BY INVENIO

### Laserdisc Media Storage Solutions by invenio

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## Tips and Tricks

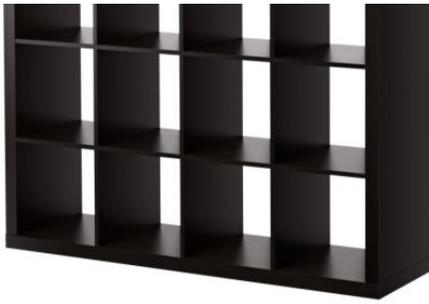
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I decided to write an article about a topic that all laserdisc collector fans have to deal with at one point or another. Most discussions concerning collecting laserdiscs focuses on what titles are in one's collection, picture and audio quality, or where to find the best deals. Once we actually acquire our treasures, little discussion is given regarding their storage. However, this is a very important issue as your laserdisc will spend 99% of its life in a storage location. We have (sadly) passed the point where all our disks are at least a decade old and some over three times this age. Disks and their cases will degrade over time whether we like it or not, but we can take steps to minimize the natural aging process so that we can enjoy this hobby for decades to come.

I will freely admit that I have gone through multiple storage solutions and only recently found what I consider a rather good compromise on function and esthetics. But we are getting ahead of ourselves. Let us start at the beginning by establishing the basic rules of storage. Generally, you want a low humidity, relatively cool, and dark environment. What

the heck does that mean? Well, there are not a lot of "official storage" recommendations for laserdiscs per se, but there are actual established standards for optical storage media such as CD and DVD. The ISO 9660 standard specifies a stable room temperature of 18 - 23 °C (64 - 73 F) with relative humidity of 30% to



50% is best for optical storage [1]. Although different technology than laserdisc, this is a reasonable goal for related optical media. Some dealers recommend humidity even lower at 35% or below [2]. Needless to say, your basement is not an ideal location to store discs unless you have a heavy duty dehumidifier running all the time to keep the humidity very low.

In addition to temperature and humidity recommendations, I would strongly suggest not storing them where they would be exposed to direct sunlight. Direct sunlight can cause significant heating. Also, with time direct sunlight will fade the

ink that is used to print the cover jackets. By keeping the disks out of direct sunlight you will also minimize daily temperature variations that can breakdown the glue that holds the cardboard covers together.



So now that we have defined the optimal environmental conditions. Let us briefly discuss storage orientation. Laserdiscs should be stored vertically to prevent warping of the disk. If the disk becomes warped, it will make it difficult for the laser in your player to track properly. Ultimately, the tracking can fail all together which would make the movie un-playable. Warping can also lead to extra vibration when the player spins the disk at high rates (close to 2000 RPM's). Due to the sheer size of laserdiscs, this can be significantly more pronounced than in other media such as CD, DVD, and Blu-ray's. Do not "pancake" pile the disks on to of each other. The heavy weight of the disks can warp those underneath. So upright vertical storage is ideal.

The last big question is, "what to put the laserdiscs on for long term storage?"

The answer to this question will depend on many factors including how many laserdiscs you have, esthetic appeal, and cost considerations. Any major retailer in your local town probably sells "media racks." However, I have found that these cheap solutions are almost always geared to CD/DVD storage and are not adequate for the large size and heavy weight of laserdiscs. There are however, multiple options available and often looking for "vinyl record storage" yields good results. There are primarily three types of storage racks. Plastic, metal, and wood/composites. There are pros and cons to all these and I shall try to summarize these. Of course, each storage rack is unique so there will be variation.



#### **Plastic-**

Pros=cheap, often stackable, light and easy to move around, many models and designs available.

Cons=very weak, prone to warping, unstable. Looks cheap.

I have to be honest, these are my least favorite. When my laserdisc collection reached a few hundred I bought some plastic shelving units that had "weight limits" of several hundred pounds. Nonetheless, after a few months they began to severely warp and this would put significantly more pressure on the corners of my slip cases. If you decide to go with plastic, I would try to keep the shelf width to a minimum and reinforce the shelf with with a piece of wood or other item so that the shelf remains flat when under pressure.

#### **Metal-**

Pros=Very strong, multiple designs, can have wide shelves.

Cons=more expensive than plastic, shelf can damage laserdisc cases, esthetic appeal makes it limited.

Metal shelves are the strongest storage option. A good industrial shelf can handle many hundreds of pounds without difficulty. You can also have rather wide shelves without the need for supporting structures that you need with plastic or wood that will prevent warping of the shelf. Be extra cautious with metal shelves that do not use sheets of metal as the wire mesh can put pressure points on the covers. In this case, putting a flat/firm covering on the shelf may be prudent.



#### **Wood/Composite-**

Pros=esthetically the most appropriate in living



spaces. Minimal warping with narrow shelves. Wide price range.

Cons=heavy, wide shelves can warp. Wide price range.

Wood/composite shelves are an excellent choice if you are going to have your laserdiscs stored in a location where people might see them. You probably don't want an ugly metal shelf sitting in your living room. However, a nicely finished wood shelf can complement your furnishings. Price ranges from rather inexpensive to custom made storage that can cost \$1,000's for even a small unit.

My current setup utilizes a simple dark utilitarian case that most likely was designed for vinyl storage. I

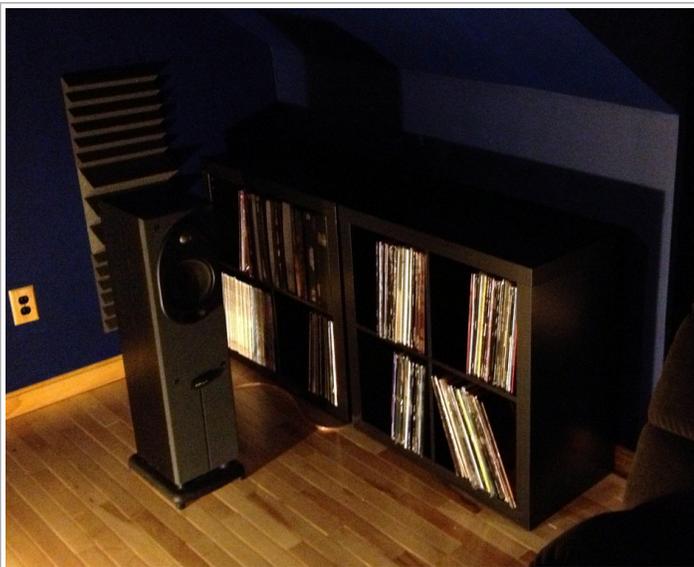
ultimately decided to go with this design as there are multiple matching units of different sizes, a sturdy design, and they fit the esthetics of my home theater room. It was rather inexpensive and sold by Ikea [3]. I own their largest unit which is a 5x5 shelf system, four of their 4x4 units, and two of the 2x4 units (which are stored for future use when the collection grows). My room has unusual height and width requirements due to sloped ceilings so it was important that I could store the discs in the back of the room with variable heights. In the large unit, I had well over 1,000 discs stored and there was no sign of warping of the shelves. The unit was very stable. I recently added the four 4x4 units in the back so that I could more evenly spread out the collection and allow for addition of more titles. The room is dark without any direct sunlight, I run the air conditioning in the summer time to have temperatures moderate and keep low humidity in the house. The winters are inherently dry and I heat the room to keep it a constant temperature in the mid 60's F.



Prior to this I experimented with plastic shelves and that proved to be a big mistake. The shelves began to warp almost immediately which would put excess pressure on the corners of the laserdisc cases.

They were rather unstable after the height of 2 vertical rows and tended to wobble with even slight pressure. They are very cheap, but frankly, I would discourage the use of similar shelves unless absolutely necessary. Do not be fooled by the high load capacity that the manufactures list for these products; they do not maintain their shape with these kinds of loads. I now have retired these to my basement and use them for general light storage.

There is no one "perfect solution" for storing laserdiscs. However, if you follow the storage recommendations stated above you will maximize the lifespan of your collection and have an opportunity to enjoy viewing for decades to come.



- 1) <http://www.cllr.org/pubs/reports/pub121/contents.html>
- 2) <http://dadons-laserdiscs.com/laserdisc-blog/preservation-laserdisc-collection>
- 3) <http://www.ikea.com/us/en/catalog/products/00208646/#/60208648>

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