

FROM STUDIO TO STREAMING

A Practical Guide to Music Recording, Licensing, and Distribution

by

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The prospect of releasing your first recording can be intimidating. Doing it well requires a significant investment of time, money, and effort, and for many, the most daunting aspect is simply not knowing how the process works. My goal in sharing the information below is to help reduce uncertainty and ease concerns. With a clearer understanding of the process, you can approach recording with greater confidence.

Let me start with a little background. In 1995, a friend and I started a small independent record label in Phoenix called Soundset Recordings. At the time, our focus was simple: we produced and sold a handful of guitar CDs. This was still the era before digital downloading and streaming had come into existence.

Around the year 2000, CD sales reached their peak. At about the same time, Napster introduced large-scale music downloading, and in 2003, iTunes brought paid digital downloads into the mainstream. CD sales began a steady decline. Then, in 2011, Spotify launched in the United States, and streaming rapidly became the dominant way people consumed music.

In the span of roughly twenty years, the recorded music industry essentially reinvented itself, and those of us working in it had to adapt quickly. As part of that evolution, Soundset became a subsidiary of Tresóna Multimedia, expanding its catalog to offer a full range of classical music recordings, from solo instrumentalists to orchestras, as well as jazz and world music in both physical and digital formats.

Despite the shift toward digital distribution and streaming, many musicians (most of the ones I work with, in fact) still value having a physical product. A CD can be sold at concerts, used for promotion, or simply given away. With that in mind, let's begin by looking at what it takes to produce a traditional compact disc.

Planning Your Recording

The first step is deciding what will go on your recording. Do you want a varied recital program, or something more focused, such as works by a specific composer, or a particular period, nationality, or genre? Ultimately, the artistic choice is yours. From a practical standpoint, however, themed recordings generally receive more attention.

Review publications such as *Gramophone* and *American Record Guide* are organized mainly by composer, and themed projects are more likely to be featured. General recital albums receive less visibility.

Once you have settled on your program, the next step is choosing a recording engineer. A good way to start is by talking to other musicians. Ask about their experience: were they happy with the result, and would they work with the same engineer again? Also ask about the recording venue. Was it in a studio or in a live space like a hall or church? Both can work well, but the sound can be quite different.

Next, listen critically to recordings you admire. Do you like a dry, intimate sound or one with more reverberation? Do you prefer a brighter sound or a darker one? Much of this can be shaped through equalization (EQ). A skilled engineer can tailor the sound to your preferences, but only if you can describe what you're looking for. Bringing reference recordings to your sessions is one of the most effective ways to communicate your goals.

Recording, Editing, Mixing, and Mastering

Commercial music production is generally divided into four stages: recording, editing, mixing, and mastering. Each stage is often handled by a different specialist, although in smaller projects one person may perform several of these roles.

The recording engineer is responsible for capturing the sound [Slide 2]. This includes choosing the right microphones, their placement, and the technical decisions that affect how the audio is recorded. For example, in a guitar recording, excessive fret or string noise may indicate that the microphones are positioned too close or that the frequency balance needs adjustment. These are issues you and the engineer should evaluate together.

A recording session also benefits greatly from having a producer. This is often someone you choose—someone who knows both the instrument and the

repertoire well. Throughout the session, both the producer and the engineer should keep a detailed record of every take: where it begins and ends, whether there were mistakes and exactly where they occurred. If a note is missed, for example, the producer should mark the measure and beat so the passage can be found quickly later.

The producer and engineer are also listening for unwanted sounds. Some are obvious, such as an airplane passing overhead. Others are much more subtle—a noisy air-conditioning blower, a cricket chirping in the corner, or even a slight nose whistle from your dry sinuses, not uncommon in the state of Arizona where I live. The key point here is that high-quality microphones are remarkably sensitive and often capture far more than you might expect.

At the same time, they are monitoring the musical performance for consistency. Has a string slipped out of tune? Has the tempo changed slightly between takes? Are there any musical details that could make editing more difficult during the mixing stage?

Most recording sessions involve multiple takes, either of the entire piece or of specific sections. The goal is to capture the best possible performance. Each take is recorded as a separate track in a multitrack recording system. During editing, the engineer aligns the takes on separate tracks, compares them, and assembles the best performances into a single seamless recording. The original takes are preserved, allowing changes to be made at any point if necessary.

Mastering is the final stage of audio production that ideally is done in a specialized studio designed for highly accurate listening **[Slide 3]**. At this stage, the final mix may receive subtle adjustments to the EQ, compression, and fades. Background noise can be reduced, dynamics refined, and the order and spacing of the tracks finalized. Whenever possible, I recommend having your recording professionally mastered. A fresh set of experienced ears often catches problems that everyone else has overlooked.

If you plan to release your recording digitally, there is one additional step to consider during mastering: assigning ISRCs to your tracks **[Slide 4]**. ISRC stands for *International Standard Recording Code*. Each track is assigned a unique 12-character code that functions as a permanent digital identifier for that specific recording. Think of it as a digital fingerprint. Streaming services and digital retailers use ISRCs to track usage, manage metadata, and ensure that royalties are properly credited.

ISRCs are assigned to individual tracks, not to an album as a whole. Each track has its own unique code that serves as a permanent identifier for tracking usage and ensuring proper royalty attribution across streaming, downloads, and broadcasts. As more recordings of the same repertoire become available, ISRCs ensure that each specific recording can be distinguished from every other version.

Unlike ISRCs, which identify individual tracks, a UPC identifies an album or other release as a commercial product.

You can obtain ISRCs through your country's official ISRC agency or through an authorized ISRC manager. If you're working with a record label, this is usually handled for you. Although ISRCs are essential for digital distribution, many mastering engineers also embed them in the metadata of physical CDs. While this isn't strictly necessary, it helps maintain consistency across all release formats. Alternatively, you can assign ISRCs later when you upload your recordings to a digital distribution service.

Copyright and Mechanical Licensing

Let's now turn to the business side of recording. These are the practical issues that can affect your budget, your timeline, and sometimes whether a project is released at all.

If the music you want to record is still under copyright, you cannot simply record and distribute it. In most cases, you'll need the appropriate license, and releasing copyrighted music without permission or a license can lead to legal problems. Copyright owners, publishers, performing rights organizations, digital platforms, and social media services all play a role in protecting copyrighted works.

Beyond the legal requirements, there's also a simple ethical principle: composers and other creators deserve to be compensated for their work.

One important rule deserves special attention. If a musical work has never been commercially released, you must obtain permission from the copyright holder before making and distributing the first recording. Always get that permission in writing. Without it, you could later be required to withdraw your recording from distribution.

Once a work has been commercially released at least once, however, you can generally make and distribute your own recording by obtaining the appropriate mechanical license and paying the required royalties.

Finally, don't assume that an older work is in the public domain. Copyright laws vary from country to country, and the date at which a work enters the public domain changes over time. Before recording any copyrighted music, verify its copyright status and determine what permissions or licenses are required.

For physical releases such as CDs, DVDs, and vinyl records, each copyrighted composition requires what is known as a “mechanical” license. The term *mechanical* dates to the earliest forms of music reproduction, including player pianos, phonographs, and later vinyl records and cassette tapes. Although the technology has changed dramatically, the name has remained.

Whenever you record and distribute a copyrighted composition that you do not own or control, you need a mechanical license. This applies even if the CDs are promotional copies or are being given away free of charge. Also remember that each copyrighted composition on your recording requires its own separate license.

In the United States, the royalty is based on the current statutory mechanical rate. As one example, if a composition is five minutes or less, the rate is now 12.7 cents per copy. Producing 500 CDs would therefore require a royalty payment of \$63.50 for that one work. Longer compositions are calculated differently. Instead of a flat rate, the royalty is based on the length of the recording, charged per minute (or fraction of a minute) for each copy manufactured. A recording that lasts five minutes and one second, for example, is rounded up to six minutes for licensing purposes.

If your recording will be manufactured and distributed in the United States, one of the principal licensing agencies is the Harry Fox Agency (HFA). Their online licensing service, Songfile, allows you to search for copyrighted works and, in many cases, obtain a mechanical license directly. Begin by searching for the title and composer. If the work appears in the database, you can usually complete the licensing process online.

One amusing, if somewhat frustrating, aspect of the system is its terminology. The industry often refers to any recorded musical work as a “song,” and any recording of music you didn’t compose as a “cover song.” That means Beethoven's Ninth Symphony is now a "song," and a new recording of it is a "cover." Most classical

musicians find this terminology a bit absurd (I certainly do), but that's simply the language the music industry has adopted.

As an example, a search for the copyright status of Manuel Ponce's *Sonata III* produces a listing confirming that the work is registered and can be licensed through HFA [Slide 5]. One important detail is that you cannot finalize the license until you know the exact duration of your recording, since the royalty is calculated from both the playing time and the number of copies you plan to manufacture.

Not every copyrighted work is licensed through the Harry Fox Agency. This is especially true of newer music, smaller publishers, foreign publishers, and much of the guitar repertoire. In these cases, you'll need to contact the composer or publisher directly. Some larger publishers, such as Peer International Corporation, also prefer to handle licensing themselves rather than through HFA.

Another option is to use an independent licensing service such as Easy Song Licensing (easysong.com). According to its website, the company can "obtain 100% of the rights you need to release any cover song," often within one or two business days [Slide 6]. If the licensing process feels intimidating, or you simply don't want to spend time navigating it, this can be an excellent alternative. I've used their service myself and have always found it efficient and easy to work with.

Easy Song Licensing can also assist when a copyright owner is difficult to locate. In some situations, they can file a **Notice of Intent**, which allows the licensing process to move forward while royalties are held until the rights holder has been identified.

Physical vs. Digital Distribution

The discussion thus far has focused primarily on physical releases such as CDs and vinyl records. Digital distribution follows a somewhat different licensing model.

For physical releases, artists or record labels generally obtain mechanical licenses before manufacturing copies of copyrighted works. By contrast, when recordings are distributed through major streaming and digital distribution platforms, the licensing and royalty process is typically administered through the digital distribution system rather than by the recording artist. As a result, artists generally do not obtain individual licenses for each copyrighted work when releasing music digitally through these services.

Instead, digital releases are typically delivered to streaming platforms and online music services through a record label or a digital distributor (sometimes called an aggregator). Record labels generally oversee this process on behalf of their artists, while independent musicians may work directly with distributors such as CD Baby or other services that accept independent submissions. These organizations deliver

recordings to platforms such as Spotify, Apple Music, Amazon Music, and YouTube, while also managing much of the associated metadata, royalty reporting, and payment processing. They also assign or manage the ISRCs for each track if they have not already been embedded in the recording metadata.

Although the mechanics of distribution differ, the underlying principle remains the same: composers and copyright holders are entitled to compensation whenever their copyrighted works are reproduced or distributed. Understanding the distinction between physical and digital distribution helps musicians choose the most appropriate release strategy while ensuring that they meet their legal obligations.

Graphic Design and Packaging

Most musicians understand that recording engineers and editors charge by the hour, so careful preparation before a recording session helps keep costs under control. The same principle applies to graphic design, although it's often overlooked. As a result, Graphic design is one of the areas where recording projects frequently incur unexpected expenses.

Unlike editing a word-processing document, revising a professional design is rarely a simple matter. Programs such as Adobe Photoshop and Adobe InDesign use layered files, so even small changes to text, images, or page layout can require extensive revisions throughout the design. As a result, changes that seem minor can quickly become expensive.

For that reason, try to have as much of the project finalized as possible before design work begins. Choose your cover image, decide on the album title, and complete all the accompanying text: including program notes, performer biographies, acknowledgments, recording credits, and any other material that will appear in the package. The more complete these materials are before the designer begins, the smoother, faster, and less expensive the process will be.

Artists should also stay actively involved throughout the design process. Artwork is often the first thing a potential listener encounters, and it plays an important role in creating a strong first impression. The finished design should accurately reflect both the artistic character of the recording and your professional image.

Finally, don't overlook image rights. Before using any photograph or artwork protected by copyright, obtain permission from the copyright holder. Some images require licensing fees, while others may not be available for licensing at all. Never assume that an image found online is free to use.

There are many royalty-free or low-cost image options available online. However, the term *royalty free* does not necessarily mean *free of charge*. It simply means that, once licensed, the image can be used without paying ongoing royalties. Always read the licensing terms carefully. Even when images are available for free download, their use is governed by specific conditions that must be followed.

Another place to look for images is online marketplaces such as eBay, where it is often possible to find vintage prints, postcards, magazine advertisements, and other printed materials that may be suitable for album artwork. These can be scanned and creatively adapted for use in a CD design, providing distinctive visual options that are not commonly used in contemporary work [Slides 7, 8, and 9].

Before the design process begins, you should also decide on the type of physical packaging you want for your CD and select a manufacturer. This is important because each packaging format, such as a jewel case or Digipak, requires a specific design template. Manufacturers typically provide these specifications, and your graphic designer will need them from the outset to ensure that the artwork fits correctly and does not require costly revisions later.

In my view, Digipaks are generally the preferred option. They are more durable than standard jewel cases, lighter in weight, and easier to ship and transport. They also come in a variety of configurations, including two-, three-, and four-panel formats, with options for booklets and pocket inserts. The best choice depends on how much material you plan to include, such as program notes, biographies, photographs, recording credits, and acknowledgments. However, it is worth keeping in mind that additional panels and pages will increase manufacturing costs.

Fortunately, it is no longer necessary to include all this material in the physical package itself. Many recordings now include only essential information in print and direct listeners to a website or QR code, where more extensive program notes, biographies, photographs, and other supplemental materials can be made available.

For projects with more limited budgets, less expensive packaging options are also available. These include slim jewel cases, paper sleeves, and folded paperboard wallets, which eliminate the plastic tray entirely.

Manufacturing

Manufacturing costs vary depending on both the production method and the type of packaging selected. Commercial CDs are produced using one of two methods: replication or duplication.

Replication is the industry standard for larger CD production runs. A glass master is created, and the discs are physically pressed from it. The artwork is then printed directly onto the disc using silkscreen or offset printing. Although the initial setup costs are higher, replication becomes more economical as production quantities increase.

Duplication, by contrast, involves burning audio onto recordable CD-R discs. Artwork is typically applied either through adhesive labels or, more commonly today, direct printing onto inkjet-printable discs. Because it requires minimal setup, duplication is generally the most cost-effective option for smaller production runs (typically fewer than about 300 copies).

Historically, duplicated CDs had a reputation for inconsistent playback on some disc players. However, advances in recording media and duplication technology have significantly improved their reliability. High-quality duplicated discs are now compatible with virtually all modern CD players and are often visually indistinguishable from replicated discs.

If you are working with a record label, it is worth asking whether they recommend a particular manufacturer. Many labels maintain established relationships with companies that consistently produce high-quality results at competitive prices. If you are producing independently, it is advisable to request samples and customer references from several manufacturers before deciding. In practice, both product quality and customer service can vary considerably between providers.

In my own work with Soundset Recordings, I have had consistently good results with New Cyberian Systems in San Jose, California. Their pricing is competitive with other reputable manufacturers, and while less expensive alternatives exist, differences in quality are often noticeable. Compared with some budget providers, their Digipaks tend to use heavier paperboard, are manufactured to a higher standard, and provide more consistent color reproduction.

One feature I have found particularly useful is New Cyberian's online pricing calculator, which allows you to compare production quantities and packaging options before placing an order [**Slide 10**]. Because a significant portion of the cost of replicated CDs comes from the initial setup required to create the glass master, the difference between 500 and 1,000 copies is often smaller than expected. However, packaging choices—such as booklets, multi-panel inserts, and other design elements—can have a substantial impact on the final cost.

Even if you ultimately choose a different manufacturer, using a pricing tool like this can be extremely helpful in planning and establishing a realistic budget.

Conclusion

Although compact discs continue to serve a role for many performers, particularly as merchandise sold at concerts and as promotional material, their importance in the marketplace has steadily declined. One early indication of this shift was the bankruptcy of Tower Records in 2006. Since then, the widespread adoption of digital downloads and, more recently, music streaming has fundamentally changed the way audiences acquire and listen to recorded music.

Other technological changes have reinforced this trend. Apple no longer includes optical disc drives in its computers, most automobile manufacturers have eliminated CD players from new vehicles, and many consumers no longer own equipment capable of playing compact discs without purchasing an external drive. As a result, CDs have become a specialized product rather than the primary format for music distribution.

For independent musicians, this changing landscape presents both challenges and opportunities. An increasingly popular alternative is to offer download cards or gift cards that provide access to digital recordings while eliminating the expense of manufacturing physical CDs. These cards can be attractively packaged with artwork, program information, the artist's biography, and even a space for a personal signature, allowing audiences to purchase a tangible keepsake while receiving the recording digitally.

Ultimately, successful recording projects require much more than a strong musical performance. They demand thoughtful planning, technical understanding, legal awareness, careful budgeting, and the flexibility to adapt to an industry that continues to evolve. While the technologies used to record, distribute, and promote music will undoubtedly continue to change, these fundamental principles remain constant. Musicians who develop these skills will be well prepared to bring their artistic work to an ever-changing audience.