

VINYL TO CD

Burning vinyl and cassette songs onto CDs



Before you begin: Here's a list of the gear and software you will need.

- A PC with a sound card. A

sound card is a circuit board inside the computer that lets it play stereo-quality sound. Most newer computers include a sound card or comparable built-in sound capabilities. You'll know you have a sound card if your PC has a jack where you can plug in external speakers and a microphone. Macintosh users: You have the required hardware built in.

- A compact disc-recordable (CD-R) drive. Computer stores sell external and internal CD-R drives, with prices ranging from about \$100 to \$400.

■ Blank CD-R discs, which cost 25 cents to \$2 each, depending on whether you buy individually or in bulk. For example, BestBuy.com sells a 50-pack of Imation CD-R discs for \$24.99 — about 50 cents a disc. A 100-pack was on sale in March for \$29.99, or about 30 cents per disc. Avoid recording music on Compact Disc-Rewritable discs. While these discs can be erased and reused, most compact disc players do not play the CD-RW format.

■ RCA-to-headphone cable, which sell for \$2 and up at RadioShack, Wal-Mart and other stores. The cable connects the record or cassette player to the PC.

■ Software. You'll need a program that will burn music from vinyl and cassettes to a compact disc. Most CD-R drives include such a program, but if you don't have one, MUSICMATCH Jukebox is an easy-to-use program that works with PCs and Macs. A free version is available at www.musicmatch.com. Musicmatch Jukebox Plus, which offers more sophisticated features and faster conversion between music formats, is available for \$19.95.

- A stereo receiver to amplify music transmitted to PC.

What to do

Once you have the gear and software assembled, follow these steps.

Launch



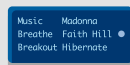
- Start MUSICMATCH or CD recording software on your computer.
- Attach cassette or record player to the PC through stereo receiver using RCA-to-headphone cable. The cable attaches to the stereo receiver's line-out jack and the computer's line-in jack. Some record players attach directly to PC line-in jack — no stereo receiver is needed.

Record



- Click record button on your recording software. MUSICMATCH, automatically sets record levels, which determine the volume and sound quality of the burned CD. Cassettes and vinyl should be recorded at 128 kilobytes per second with 16-bit stereo at 44.1 kilohertz. This is the minimal setting for a good quality audio CD.

■ Play the vinyl record or cassette, sit back and relax. The software will automatically record the music as an MP3 file. MP3 is a common format for recording digital music. After each song stops playing, listen to the recorded track to check quality and volume level.



- MUSICMATCH will set up a library of songs recorded from cassettes and vinyl. When you are ready to burn the songs on a compact disc, insert a blank disc in the CD-R drive. In Musicmatch, press the CD-R button to burn music on CD. The software will automatically convert the song to the digital format used to record songs on audio CDs.



Play

- CD-Rs usually hold 74 minutes of music. CD-R discs that hold up to 80 minutes of music are available but are not compatible with all recording software. CD-R drives record at different speeds. A 1X burner takes 74 minutes to record a full CD while a 4X burn does the same job four times as fast, in about 17 minutes.
- When the software prompts you, remove the recorded disc from the drive CD-R drive and play it with a regular CD player.

How to copy any music onto CD

Transfer your favorite vinyl, cassette and compact disc songs to custom-made, recordable compact discs, or CD-Rs with a PC and the proper hardware and software. Below is a step-by-step guide from experts on transferring records and tapes to CDs and duplicating CDs. Who are the experts?

- The folks at MP3.com music player Web site.
- Andrew McFadden, a California software engineer who offers CD recording advice at the www.fadden.com Web site.
- Bruce Fries, author of "MP3 and Internet Audio Handbook: Your Guide to the Digital Music Revolution" (\$24.95, TeamCom Books).



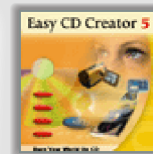
Can I copy a CD if my PC has just a CD-R drive?

- Load MusicMatch or another CD recording program.
- Insert the CD to be copied and transfer all the songs or individual tracks to your hard drive with MusicMatch or other recording program. Refer to the program's instructions. Your PC will need at least 650 megabytes of free space to store a 74-minute CD. Plan on allocating up to 1 gigabyte because CD copying creates a lot of temporary files, which eat up even more hard drive space.
- When the tracks are finished copying, remove the CD and insert a blank CD-R disc. Load tracks to be burned onto the CD-R into a playlist and click the record button.
- When finished, take the CD out of CD-R drive and play it in a regular CD player.

Where can you get CD burning software?



- www.musicmatch.com Offers MUSICMATCH Jukebox, a free program. MUSICMATCH Jukebox Plus, which burns CDs faster and creates customized radio stations of favorite songs, costs \$19.95. MUSICMATCH software works with Windows, Macintosh and Linux computers.



- www.roxio.com Offers Easy CD Creator 5 software (\$79.95 after \$20 mail-in rebate). For Macintosh, Roxio offers Toast software (\$89).

Additional tips

- Don't run other computer programs when burning CDs. Web browsing or other computing activities could disrupt recording.

- Software is available that not only burns music on CDs but also cleans hisses, pops and clicks from vinyl and cassette digital recordings. Cool

Edit 2000 is a \$69 Windows program available at www.cooledit.com. SonicFoundry offers its SoundForge program for Windows at www.sonicfoundry.com. For a list of Macintosh audio software, go to <http://shoko.calarts.edu/~tre/CompMusMac/>.

- Most CDs are protected by copyright laws. It is generally OK to copy songs from one CD to another for personal use, but it is illegal to copy CDs for resale.

CD TO CD

Copying songs from CD to CD



Duplicating CDs a snap if PC has both a CD and a CD-R drive:

- If your PC has a CD drive, a CD-R drive and software for copying from one CD to another, CD copies are easy. To copy the entire CD, insert it in the CD drive and put a blank CD in the CD-R drive. Follow the software directions to copy a CD. CD duplication software can be purchased from Adaptec (www.adaptecstore.com). PCs with Plector (www.plector.com) drives can use the bundled Discdupe utility to copy CDs. Other CD-R makers generally include their own duplication software.