

HOME DIGITAL FREE FOR ALL?

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With the introduction of domestic hardware, recording audio CDs has suddenly become a whole lot easier

Despite the fearsome and negative emphasis given by the record labels to the 'new' digital domain - recording in the home - consumer acceptance of advanced digital CD recording media is still in the fledging stage and does not justify the current record label paranoia, at least in the short term. Record industry fears about illicit copies, consumer fair use, home copying, intellectual property rights, watermarking and the Internet, reveal energy that would be far more productive if the self same energy would be used in enhancing digital replicated media sales.

Foremost in the consumer digital audio arsenal, the dedicated audio CD recorders using specially coded CD-R blanks and/or CD-RW blanks, do stand out. These are the ne plus ultra of home audiophile recording according to the remaining stereo/high fidelity magazines; the folding or rolling into other publications of the several failed stereo/hi-fi titles does indicate a significant shrinking of the dedicated audiophile population.

The special CD-R blanks used in home audio CD recorders are far more expensive than ordinary computer CD-R discs (which do not work in audio CD recorders) because the discs have a 'bounty' attached that is paid to the copyright owners for distribution to labels, artists, etc. It is, in fact, a pre-paid copy protection system, which permits the user to make CD copies without any other controls applied.

Curiously, of late the required use of special audio CD-R blanks for home audio CD recorders has been circumvented by many savvy audiophiles who have learned that with several of the audio CD-R models available today, there is an illegal 'fix' which allows the use of a conventional computer CD-R blank costing around one dollar instead of the $8/9 for the special blank. The finished 'bootleg' disc will play on a regular CD player in the same way as the specially coded audio blanks.

The fact that this is going on has not remained exactly a 'military secret.' Many of those who have discovered the 'trick', have been very vocal about how they have beaten the system. Some writers in consumer audio magazines have spread the news about their discovery to all of their readers. Electronics retailers, especially the so-called wholesale variety, have in some cases even posted these magazine articles next to their computer CD-R blank sections.

(Apparently, some computer CD-R blanks work better with this scheme than others.)

Record industry reactions to this 'fraud' have been duly noted as resembling a combination of outrage and more of that 'old time religion' of paranoia that so endears the record industry to the press. Yet again, 'this technology outrage', or 'that technology outrage' will destroy the western world's record industry.

Yet the reality is far from the perception, and CD-R recorders are far from being in the homes of most audio consumers, The 'trick' is not available on all models of audio CD-R recorders currently sold, and will clearly be fixable with an inexpensive microswitch on future designs.

It is patently clear that those companies making and marketing dedicated audio CD-R recorders will learn this particular lesson and modify their next models to prevent this avenue for misadventure. Also, consider that there are only five or so companies marketing these machines in the US, and what with Japanese corporate parental ownership, corporate interconnections in Japan and European and intra-company OEM practice, one could still say that only two companies, Philips and Pioneer (and their several divisions and/or related units), are actually heavily involved with manufacturing audio CD-R. Other companies are 'testing the waters', but to date they have not committed massive resources. Still, others are awaiting the arrival of DVD-R to jump into the marketplace.

One of the issues that continues to limit audio CD-R from going mainstream is price, but there are indications that this is moderating as we speak. It will not surprise anyone to find $400-$500 audio CD-R units in the shopping malls/high street stores after the beginning of next year.

Perhaps more daunting to the future of the CD-R is the record label ownership relationships with consumer electronics makers - no matter how tenuous - that continue to keep CD-R products off the market, according to some seers in the consumer electronics industry. One old industry hand notes, "Nobody speaks of this publicly, but the huge mainstream consumer electronic marketers such as Sony and Matsushita are related to, respectively, Sony/Columbia and the Universal/MCA/PolyGram record labels.

"Other similar company relationships in the two industries exist as well. No matter how minor the remaining investment and/or management connection might be, it provides in some cases considerable leverage for record label management to hold over the associated consumer electronic maker. Does this keep Sony and it's related holdings in Aiwa, or Matsushita as Panasonic, National, Quesar, Technics, Ramsa and related JVC, or Toshiba with its DVD relationship with Warner Bros. et al, from entering the dedicated audio CD-R marketplace? Nobody will say so for sure, but it is curious that even today recording audio CD-R has so few real patrons amongst the consumer electronic makers."

Despite the current resurgence in MiniDisc acceptance - with portable player/home recorder combinations priced just below the $500 point - the audio recording CD-R still serves the consumer more appropriately. Certainly, the lack of MiniDisc acceptance by the world's auto makers means that the making of personal compilation

collections on disc for car playback (which remains the number one reason for home copying according to several recent studies) is far better served by CD-R than by MD.

MD players have to connect to the automotive sound system either with cassette adapters that feed the playback head, or with miniaturised FM transmitters to the car's receiver if CD equipped. In either case, the audio quality of the programme transfer is problematic. CDs, on the other hand, are becoming the dominant format in cars as new vehicles replace older cassette equipped automobiles. So, in theory at least, the use of audio CD-R recorders more directly fits the definition of a late 1990s lifestyle product.

The wonderful world of the recording CD-R for computers is for many audio users anything but. The standing joke about turning audio files of any kind into a finished CD-R or even CD-RW is that, "It has created more coasters for drinks than all of the plastic manufacturers in the world."

First, audio recordings completed on RW blanks rarely read properly on consumer audio CD players. The problem with CD-RW is the erasability characteristic that is the hallmark of the RW disc, which produces changes in a dye layer that is frequently too feint to reproduce conventionally.

Some completed CD-Rs also exhibit the same characteristic of relative invisibility when played back on home CD players. This is a problem that many users find with CD-R blanks from some blank media makers when using CD-R drives from certain consumer electronic manufacturers installed in some Wintel and/or Mac computers using various recording CD software and then played on various consumer audio CD players. well you get the point. It is probably easier for epidemiologists to trace an outbreak of Yellow Fever in New York City to a particular neighbourhood than it is to isolate the specific problem factor in an unplayable CD-R.

Of course, all of this assumes that the CD-R recording process was successful in the first place. The effort and the number of specific steps needed to successfully cut an audio CD-R are probably the most demanding and the most complicated in terms of the various tasks performed on computer. Even knowledgeable computer users, who have successfully created data CD-ROMs on the same CD-R drive with the same enabling software, frequently report a significant learning curve to produce acceptable audio CDs.

Now the bottom line here is that audio CD-R recording is not exactly thriving, but is succeeding. While this is not going on at a rate that is significantly threatening either pre-recorded media replicators or record labels, at least in the short term; in the long term audio CD recording will grow much more slowly against the expected rate of adoption for the audio recording DVD. Computer CD-R recording, meanwhile, is thriving, and will continue to grow until the computer DVD-RAM hits the streets.

However, the more important point is that, according to several studies, people use the ability to record an audio CD (especially with CD-R audio decks) to create a compilation disc for automotive use, for parties, for portable CD players, etc. Although Philips is introducing a dual drive audio CD-R recorder to allow simple direct copying CD-to-CD, there is little logic to creating one's own CD copy

by recording. Assuming that the 'trick' which allows the use of cheap blanks is stopped, the $8 or $9 pre-paid copyright fee discs would make little sense in copying a CD. Adding a jewel box and clumsily photocopied promotional booklet just seems redundant when a new CD disc is available at retail for $12 to $15.

Recording data CDs on a computer drive has been a successful and growing mode of data backup and data transfer, while making audio recordings on a computer has been a frustrating experience for many. Of course, professional grade CD recorders with built-in driver software and hard drives do provide a useful tool for those working in pro audio, but their $2,000-plus price tag (which also applies to pro audio CD-R recorders), leaves them a long distance from the consumer marketplace.

The last issue to consider is that of the Internet digital download industry which has so polarised the record labels into action on the copyright and watermarking front, and still needs a mass market viable recording format to thrive. Without any storage capacity, the dedicated audio CD-R recorder is not that machine. Connecting one to an Internet-linked computer via the usually compromised (due to cost) digital-to-analogue converter chips or audio boards found in most PCs and Macs, offers no solution either for the audio CD-R.

Trying to create a CD via a downloaded stored 'image' of an album can be done, but it is a time consuming and error-prone experience with a CD-ROM recorder connected to the computer. This arena, too, will probably have to wait for the arrival of recording DVD-RAM.

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