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HEADLINE: THE SEARCH FOR THE DIGITAL RECORDER

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BODY:

THE COMPACT DIGITAL disk player is a sweet note in an otherwise flat home audio market. Despite prices averaging about \$500, the players sound so good to music lovers that sales of digital audio equipment should top \$200 million worldwide this year. The machines, made by companies such as Sony and Philips, play 4.7-inch hard disks engraved by lasers with a musical computer code that the players translate back into music. But the machines can't record music digitally, and no one is selling a consumer product that can. Such a product would appeal to music buffs, and could conceivably revolutionize the way music is sold.

Now some audio experts believe a company that went public last year at 2 cents a share has a shot at this market. Compusonics, based in Denver, has invented a digital machine that records music on ordinary magnetic disks. Some experts think it offers the same clarity and fidelity as laser-disk players.

Compusonics is the brainchild of David Schwartz, 36, a computer engineer and amateur musician. His company has just begun to sell a \$35,000 digital recorder to the professional market. One of the system's virtues is that it speeds up the process of editing sound. Music recorded digitally can be cued on a disk and called up almost instantly, without all the rewinding necessary with tapes. The professional model uses a hard disk, but next spring Compusonics plans to launch a \$1,200 digital recorder for the home that will make recordings on a floppy disk.

The technological hurdle was finding a way to pack a lot of music on a magnetic disk. When translated into computer lingo, music is so data-intensive that one side of a typical floppy could hold only about four or five seconds' worth, and a hard disk about 20 minutes. The patented Compusonics system uses a kind of electronic shorthand. A long note from a flute, for example, or a few seconds of silence, becomes a computer symbol that takes up less room on a disk than the whole stretch of sound or silence. Compusonics has put an hour of music on a hard disk and three minutes -- which it hopes to raise to 45 -- on one side of a floppy.

Stephen Booth, who reviews audio equipment for Popular Mechanics , says, "I'm impressed with the technology." But the Japanese are skeptical that Compusonics can get all that music on a floppy disk without losing quality. Manufacturers such as Sony are leaning toward digital cassette tape for





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recording. Compusonics wants to win audiophiles before the Japanese decide to go with digital tape. To make its floppy disks the standard, the company plans to license the technology cheaply to other manufacturers. Next year McIntosh Laboratory Inc., a manufacturer of high-quality amplifiers, will build floppy disk recorders based on Compusonics' technology.

If the technology does take hold, future applications could be dazzling. Compusonics is talking to AT&T about setting up a service that would enable record companies to sell direct to consumers over the telephone. Symphonies, ordered by credit card, could travel digitally over phone lines into homes to be recorded by Compusonics' machine. Movies, which can also be recorded digitally, might be sent the same way. Enough speculators have been taken with these prospects to push Compusonics' stock up 525% to a recent price of 12 1/2 cents.

GRAPHIC: Picture, Schwartz with floppy disk and recorder, MICHAEL SIMPSON

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