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## Are CD Players Finally Delivering What They Promised All Along?

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The death knell for the relatively short-lived compact disc has been tolling for a few years now. Pundits, even within these very pages, have been predicting the end of traditional music software at every opportunity, saying that all of us, not just dorm-bound college kids, will soon be buying all of our music as online downloads instead of on little shiny silver discs or vinyl platters.

I doubt there was much made in the media of the Edison cylinder's demise, but we did hear similar hurrahs a couple of decades back when the LP's coffin was having its last nail driven in. However, since there are more turntables on the market today than 20 years ago, the LP can steal Mark Twain's famous quote, "The rumors of my death have been greatly exaggerated." And as for the CD, don't start playing any requiems just yet—sales may be dragging, and you might not be able to find a CD-only player at your local big-box electronics warehouse, but trust me, we are only now beginning to get anywhere close to the original promise of Sony and Philips: Perfect Sound Forever.

And while it is still far from perfect, the potential for decent musical sonics from even average CDs has never been greater. Advancements in microchip technology, software design and vibration control all combine to extract higher quality sonics from CDs than we experienced from players of just a handful of years back.

Don't toss out those dusty old CDs just yet (though I know people who already have, after loading their collection onto an iPod!), because there will always be better and better players debuting in the marketplace. And though the CD will probably never sound as truly musical as good vinyl (hold the tomatoes), today's CD sound is better than ever.

That the "perfect sound" of the digital format was not exactly so perfect became apparent to critical audiophiles in the early days of the CD, and the push was on for a better CD player. Initially, "modders" scattered around the country would tinker with existing players of all types to improve various resistors, capacitors and other components within the player to gain slight—but noticeable—improvements in the sound



*Classé Audio CDP-102 CD player*



*Rotel RCD-1072 CD player*



*Rega Saturn CD Player*

of stock players.

Eventually, it was decided that the main culprit for the grating, etched sonics of early CD spinners was the component of the player that converted the digital information harvested from the disc back into the analog signal heard through the speaker. Unfortunately, the basic "Red Book" CD standard was rushed by Sony and Philips into finality without properly considering its limitations. It presented a woefully inadequate sampling rate; that is, it could never sample a smooth, musical waveform more than about 14,000 times per second, a fact we now know grossly underrepresents the true nature of music. But the frequency spectrum of the CD was also limited on the top end to about 20KHz, and since those crafty engineers assumed no one could hear frequencies higher than that, it really didn't matter to them, which we now realize also does little justice to the true nature of the music.

In time, intrepid audio designers began assembling proprietary outboard digital-to-analog converters (DACs), initially to mate with stand-alone CD transports. Later they would be usable with just about any serious CD player on the market. As long as the player had digital outputs, you could immediately improve its sound with the addition of one of these very expensive units—I seem to remember the first Mark Levinson DACs were tagged at, or well over, \$14,000. Ahhhh, but the sound was glorious!

Now outboard DACs are everywhere and available to fit any budget, but if these improved circuits had been incorporated into the players to begin with, they would be unnecessary add-ons. And if the Red Book standard had been engineered properly to begin with, perhaps they would never have had to be developed in the first place. Unfortunately, since their introduction, it's been a constant struggle to get really good sound out of those little silver discs.

All of this is not meant to ignore the fact that there have been some good players out there since the second epoch of CD playback, but the pricing of those machines has been, well, steep, steep, steep: the Linn Sondek CD12 sold for about 20 grand, for example. But the good news is, with advanced engineering, even today's affordable players can sound quite wonderful.

Case in point: Rotel (rotel.com) was one of the pioneers in better-sounding yet affordable players back in the early '90s. Several incarnations later, it produced the RCD-1072 (\$699), a hefty machine that, right out of the box, demands respect and attention. Its rock-solid, ultra-thick aluminum face plate is functional as well as impressive visually—the extra rigidity helps create a very stable chassis in which the player operates in a more vibration-free environment, and that translates into better sound. Rotel also spared no expense, at least within the budget for this machine, in selecting premium parts for all the circuitry inside the machine, putting great emphasis on the power supply—the stuff that feeds all the individual circuits their electrical juice—as well as choosing the latest Burr-Brown digital chip. In addition to offering excellent standard sound, the chip features HDCD decoding for those few discs encoded with this seemingly forgotten sonic-improving feature.

Like other Rotel machines we've tried before, this one was a snap to hook up, and performed like a champ throughout the audition process. "Freddie Freeloader" from Don

Byron's joyful Ivey-Divey CD features Byron on clarinet, Jack DeJohnette on drums and Jason Moran on piano. Well, I'm a clarinet nut and the Rotel fed me a highly accurate woody read of Byron's fine tone, as well as a perfectly punchy, snappy portrait of DeJohnette's always perfect drumming, replete with his unique cymbal shimmers and ultra-dry rides. Very cool indeed.

Kip Hanrahan, a former part-time stagehand in New York City theaters, produced some of the most vital and interesting jazz/world music recordings of the early 1980s, featuring Steve Swallow, Teo Macero, Ricky Ford and Jerry Gonzalez, among others, all backed by a crack Cuban and Haitian rhythm section—with Jack Bruce handling the vocals. His discs are heavy with thick percussion textures hard to hear properly on run-of-the-mill gear. But the Rotel negotiates all the complex passages with ease so that the Cuban clave and the Haitian kompa on *Desire Develops an Edge*, for example, can be discerned and appreciated, not just on a musical level: The infectious rhythms come across strongly enough to make you wanna get up and shake it. If your budget is limited and you need a new CD-only player, the Rotel is a no-brainer solution to the question of what to buy.

Classé Audio ([classeaudio.com](http://classeaudio.com)) is a Canadian company renowned for high quality, sturdy equipment admirable for its astonishing heft—really overbuilt, but done so with the goal of longevity as well as exceptional sonics. A Classé amp is one your kids will enjoy long after you've gone marching in with the saints.

The current offerings in their Delta series are no exception. When I took the CDP-102 (\$4,000) out of the box, I thought I was lifting a heatsink-laden amplifier. It is that heavy, 27 pounds to be exact, or 25 more than my mass-market DVD player. The chassis seems like it's carved out of a solid chunk of aluminum, though they tell me it is molded aluminum. The player sports a unique touch-screen control panel that is a breeze to learn and offers great flexibility in tailoring the operation of the machine to your personal needs. The player will read just about anything you can feed it, including CD, CD-R, CD-RW, DVD-Video, DVD-Audio, DVD-R, DVD-RW, DVD+R, DVD+RW, MP3, WMA, dts-CD, Video-CD and S-VCD. Though it can read DVDs, it is not really designed as a DVD player; the emphasis is on the CD playback quality. However, a video output will allow for moderate-resolution DVD video playback with fantastic two-channel audio reproduction.

Listening to that same Hanrahan disc through the Classé I was able to get just a bit more into the complex instrumental tapestry: more punch, more definition, more clarity than the Rotel. But that is to be expected at this price. The design and physical presence of this player reek of quality, which it surely delivers. I played a wide variety of discs without a hitch and even watched part of a favorite flick on the little touch screen. On disc after disc, I was impressed by the authority of this player and its ability to resolve the smallest details in the music with aplomb. I was equally impressed by its bass reproduction, a quality many players scrimp on for some reason; bass was always taut and tuneful and in just the proper proportion to the rest of the mix.

By the way, the industrial design of this unit is stunning, and when mated with other Classé components, presents an impressive stack of gear; we'll examine the Classé integrated amp in a future column.

Roy Gandy of Rega turntable fame (rega.co.uk) entered relatively late into the CD player field—Rega's first player only came to fruition in the mid 1990s—because he decided it was a pot not worth jumping into without proper research and preparation. Then, after the astonishing success of the Rega Planet and Jupiter players, Gandy resolved to do better. Actually, the withdrawal of Sony and other big boys from the dedicated CD player market forced Gandy's hand.

A lack of CD-only chipsets—these days, the major manufacturers are only interested in DVD-related stuff—compelled Gandy and other manufacturers to look elsewhere for their raw materials, because only that very small handful of producers has ever made the chips that control the reading and conversion of the information contained on a CD. Gandy partnered with an unnamed British firm to create a new way to read and play CDs via totally new software and memory functions. Gandy says the typical chip in the typical CD player has a memory of about 37K, while the new device Rega now uses operates with 20Mb of computer-class memory. This allows the player to read the entire disc's digital profile before playing. in order to choose the proper error correction method, among other things. All in all, this is the first major rewrite of digital processing software since the medium's first days, no minor achievement, to say the least.

"Everyone has used some form of the original Sony and Philips chipset," says Rega's U.S. importer Steve Daniels. "This is the first fundamental change in the way CDs are read since then."

We've already discussed how Rega's new technology is addressed with its entry-level Apollo player (\$995), and then along comes the Saturn (\$2,395) which, pun intended, draws very big rings around its sibling and all other players most of us can reasonably afford. Outwardly, it resembles the Apollo, but its guts are significantly reinforced: instead of one DAC chip, it uses two: one for each channel. It employs more and much beefier power supplies for each of the player's functions, better isolating the power needs of the transport, the digital processing, the display screen, etc., from one another: cleaner juice means cleaner sound. Plus, the Saturn utilizes higher quality components in several other critical locations of its circuitry. Is it worth the extra 14 semi-large?

Yes, yes, yes. Gandy, a vinyl guy forever, obviously wants his digital devices to approach his legendary turntables as faithfully as possible. With the Apollo he got pretty durn close. With the Saturn, well, he might just have hit the bullseye.

"We took the Saturn on the road to our dealers and let them compare it to other much more expensive players," reports Steve Daniels, "and the Saturn always bettered those players. The dealers were hard to convince at first that it could be that much better than the Apollo and worth the extra money, but when they heard the Saturn, they were sold."

Like the Nottingham LP playback system reviewed a few months back, the Saturn provides a black, velvety background for the music, i.e., sheer silence behind the music, the singer, the horn. One of my standard component evaluation discs is singer Ann Dyer's *When I Close My Eyes*, a very nifty, spectacularly recorded disc from this somewhat esoteric San Francisco Bay area singer. Played on the Saturn, Dyer and band hang magically in the air between the speakers. When I close my eyes, she might as well be in the room, it is that spooky. None of the usual digital issues are present, yet

rather, we are offered some hauntingly intoxicating music and singing in a non-fatiguing, nearly analog-like presentation; Dyer's instrument becomes fun and easy to listen to, and it becomes difficult to let the disc stop spinning.

With the Apollo I auditioned Randy Newman's latest outing, his Songbook. For a more interesting test, I pulled out his 1972 classic, *Sail Away* (with Ry Cooder and Van Dyke Parks, among other greats, in the band) to see how the Saturn could deal with a more typical older recording. As I listened to cut after cut, I found it far more enjoyable from a performance standpoint because the analog recording technique captured more of the feeling of the session than do the newer digital versions of some of the same material. Again, listening through the Saturn, I felt like the music was "playing just for me," to quote Newman's "Lonely at the Top." Nuances of instrumental timbre, especially the piano, were transmitted perfectly with superior musical realism.

But regardless of the disc, the Saturn surpassed just about every other digital playback system I've heard before—maybe not better on every single checkpoint, but on a purely musical level, it would be hard to beat this machine. But damn, the rumor is that Gandy has an even better player on the drawing board. How it can exceed the Saturn is difficult to fathom, but it is hoped that we'll get to find out soon. In the meantime, this Saturn rockets ahead of the competition, and I can't wait to put one in permanent orbit around my house. I'll leave the downloads to the kids in the dorm across town.

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