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Acoustic Revive RD-3 Disc Demagnetizer and RIO-5 II Negative Ion Generator

Sticks and stones . . .

As applied to *audio*, the prefix *ultra* implies hardware that is cutting-edge, often expensive, often effective, perhaps over the top, perhaps off the wall, and sometimes puzzling. For example, what is it about the compact disc, a digital medium with pits that are fixed forever, that could possibly benefit from demagnetization and negative ionization? And what was it about Acoustic Revive's RD-3 Disc Demagnetizer (\$399 USD) and RIO-5 II Negative Ion Generator (\$595), en route from AR's US and Canadian distributor, Lotus Group USA, that had me so eagerly awaiting their arrival?



To answer the second question, the designer of my Aurum Acoustics Integris CDP CD player, Derrick Moss, has made several suggestions for improving my sound system, most of which have been reliable. When a no-nonsense audio guy tells me that a digital disc demagnetizer makes a difference, I'm eager to check out the claim in familiar surroundings, regardless of my incredulity. Moss had replaced the CDP's magnetized disc clamp with a nonmagnetic design -- there's no point in demagnetizing a CD if its magnetic whatevers will be immediately regrouped by a magnetic clamp. (Moss has had no experience of the RIO-5 II.)



So what *is* this stuff?

The RD-3 Disc Demagnetizer has no moving parts and creates no heat. It has a red On/Off button and, next to that, a white button that activates the demagnetizer. A green LED fades to off after about 16 seconds, indicating that the process has come to an end. You then flip the disc and treat the other side. The RD-3 is recommended for use with CDs, CD-Rs, DVDs, DVD-Rs, and SACDs. For -R media, you first treat the blank, then the finished product.

The RIO-5 II Negative Ion Generator is more complex. Turn it on, and a halogen light and reflector illuminate a layer of pellets, and a fan runs for about 14 seconds. When you place a disc in the top of the RIO-5 II and

activate the generator, the fan comes on for another 14 seconds. The pellets, a little smaller than aspirin tablets, consist of a proprietary formulation of tourmaline and other minerals and ores. Acoustic Revive claims that the RIO-5 II discharges a greater number of negative ions than other generators that have been in use in room air-purifiers for many years. As for tourmaline, I recently saw in a catalog a hair-dryer that boasts tourmaline technology as its claim to superior performance. (For a more detailed explanation of what the RIO-5 II does, go to www.acoustic-revive.com.)

Lotus Group's Joe Cohen tells me that Acoustic Revive's products are the work of Ken Ishiguro, who joins an elite (in Cohen's opinion) of modest, soft-spoken audio innovators, of whom Japan has produced more than its share.

The (maybe) mysterious RD-3 and RIO-5 II

Why might a demagnetizer be capable of affecting a digital format's sound? A CD's silk-screened label can contain magnetic elements such as iron, nickel, and cobalt, and the aluminum data layer itself includes a considerably smaller amount of magnetic impurities. Further, aluminum is not without its own magnetic properties, however weak. I picked all this up from www.furutech.com. Furutech's RD-2 is identical in appearance to Acoustic Revive's RD-3. As I understand it, Furutech discontinued the RD-2, but they do provide a detailed explanation of what the product does on their website.

"First, it is thought that an iron ingredient contained in the printing ink of the label side of the disc is one of the causes of magnetizing discs. For example, iron oxide is used for red, yellow or brown ink, cobalt is used for blue or green ink and nickel is used for silver ink. These materials, iron, cobalt, nickel, are called ferromagnetic substances, and they are relatively easy to magnetize. Second, problems are caused by the use of aluminum used for the recording side of CD. Currently, the JIS (Japanese Industrial Standard) states that the purity of the aluminum used must be 99.0%. The other 1% contains ferromagnetic substances such as iron, nickel and cobalt. Aluminum is a weak magnetic material, so it is easily influenced by magnetism. CD players contain magnetic substances; when a disc is played, the rotation of the mechanism, magnet and motor generates a flux which quickly causes discs to become magnetized. The same problem occurs in CD-R, DVD and MD. In particular MD uses an iron ingredient for the Magnet Catch, so the influence of magnetism is increased. In the worst cases, it is impossible to read signals."

That's easy enough to understand, the bad translation notwithstanding. The mystery for me remains the role of negative ions. And so it shall remain -- the mystery, I mean. Being of a decidedly unscientific bent, I'm content to confirm by listening whether or not these devices work.

Just how much ferrous debris have you in that flapjack, sir?

Some audio components require lengthy break-in periods: a nuisance. The RD-3 and RIO-5 II do not, exactly. Joe Cohen recommends a ten-minute run-in for the RIO-5 II each time it's used. Owing to the heat it puts out, it's not a good idea to leave a disc in the RIO-5 II's cradle after the fan cuts out. The RD-3 is ready to go when turned on. My sole gripe is that the information accompanying the RD-3 and RIO-5 II is in Japanese. Cohen tells me that an English-language version will be available soon.

Early in my cohabitation with the RD-3, which I tried before looking into the RIO-5 II, an idiotic analogy sprang to mind: I'm in a hot shower, preparing to shave with a fresh Gillette blade. All right, so *you're* in front of the bathroom mirror. Either way, we've lathered our faces with rich, warm soap, and the shave is effortless -- moist, heat-softened whiskers succumbing to fresh blades, cheeks as smooth as a baby's butt. Having done the RD-3 drill -- label side down till the green LED goes out, label side up, ditto -- I immediately heard a difference. The sound's shimmer and shine remained. What had departed was the grit. Remember, this was early in my exposure to what has since proved itself a remarkable accessory. Many of the discs I've treated with the RD-3 have ascended from good to better.

Did I say "many"? As is often the case, perceptions of difference depended on the recording. The first of

several positive impressions: A nicely produced disc of orchestral works by Thomas Adès, a young British composer with a taste for lively scoring, has soundstage depth that extends well beyond the wall behind my system. After the Revive treatment, that illusion of depth was more pronounced. In general, soundstages became more coherent, with a similarly diminished sense of constriction.

That day's mail produced a promo disc of Handel's *Concerti Grossi*, Op.3, performed by the London-based Academy of Ancient Music, Richard Egarr conducting [CD, Harmonia Mundi HMU 907415]. Serendipity! Baroque music performed on period instruments produces a thinner, brighter, top-tipped sound. I played the disc without treating it with either device. The first track sounded good, if a bit grainy, and the soundstage dimensions were all right too. I then treated both sides of the disc with the RD-3, and there was no denying the difference. The strings, while retaining their characteristic brilliance -- if anything, that brilliance became more apparent -- had lost their gritty edge. The soundstage was enlarged in a way difficult to describe. Let's just say that my speakers now seemed more like freestanding sculpture than sources of sound.

Treating the disc next with the RIO-5 II, I detected a difference even more difficult to put into words, but it was there. The soundstage width increased by another degree, which is perhaps only to say that the speakers now figured even less as sound sources. The RIO-5 II also added a touch of liquidity to the midrange.

Later still . . .

My perceptions of improvement moved from strength to strength, and a Delos CD offered perhaps the most rigorous test yet of the RD-3 and RIO-5 II's synergistic contributions. John Eargle is one of the world's premier recording engineers of large orchestral works. Delos DE 3078 features his tapings of the Seattle Symphony under Gerard Schwarz's direction in Barber's *School for Scandal Overture*, Gershwin's *An American in Paris*, and Bright Sheng's orchestration of Bernstein's *Arias and Barcarolles*, with mezzo-soprano Jane Bunnell and baritone Dale Duesing.

Eargle's recordings are sweet where they need be, likewise biting, and always dynamic and spacious. Here, it wasn't so much removal of grit as improvements in the shaping of the soundfield, expanded dynamic range, and extension of the music's low end. Again, the RD-3 seemed to obscure the speakers' role in the size and coherence of the soundstage.

I went next to a fine recording of a jazz trio, *West of 5th*, with pianist Hank Jones, bassist Christian McBride, and drummer Jimmy Cobb [SACD/CD, Chesky SACD313]. I'm not the first to praise Chesky Records' production values, but this was a lovely-sounding disc even before the Acoustic Revive treatments. I played track 1, "On Green Dolphin Street," treated the disc with the RD-3, played it again, then put the disc through the RIO-5 II drill and played it yet again. A curious thing happened: Jimmy Cobb's drum kit, which had originally sounded a little too far to the right for a tight-knit trio, had moved to the left! It wasn't that the drums' image now dwelt between the speakers, exactly, but I was now hearing a beautifully enclosed spread -- pretty much, I suspect, what recording engineer Nicholas Prout had intended to capture with his single-point microphone.

I haven't been able to reproduce the space-shifting drum-kit effect with other small-ensemble jazz discs, but it was interesting that, CD after CD, the Acoustic Revives seemed to help recordings achieve their home-playback ideal: wide and deep where appropriate, intimate likewise, meticulously dynamic, and harmonically rich. I should mention here Joe Cohen prefers treating only a disc's label side with the RIO-5 II. I've experimented, and agree that treating both sides with the negative-ion generator perhaps overdoes to a slight degree the difference the RIO-5 II makes.

I then treated, with both the RD-3 and RIO-5 II, a 1985 compilation of analog recordings from the mid-1960s of works by Benjamin Britten: the *Cello Symphony*, *Sinfonia da Requiem*, and *Cantata misericordium*, the composer conducting the English Chamber Orchestra, New Philharmonia Orchestra,

and London Symphony Orchestra and Chorus, with cellist Mstislav Rostropovitch [CD, London 425 100-2]. It's amazing to hear a composer who is also a skilled conductor direct his own music, and Rostropovitch is a superb cellist who has done more for living composers than any superstar instrumentalist I can think of. And for their period, these are exemplary recordings. In short, this CD is one of the treasures of my collection. Anything that gets it to sound better -- more lifelike, more dramatic -- stays in my listening room. With the Acoustic Revive treatments, I heard an uptick in those golden-oldie qualities we music-loving sound freaks cherish.

Janáček's opera *The Cunning Little Vixen*, with Sir Charles Mackerras conducting the Vienna Philharmonic, is a 1981 digital production [CD, Decca 417 129-2]. Treated by the RD-3 and RIO-5 II, it, too, sounded more dramatic and lifelike. The opera is a masterpiece and Mackerras is one of the best Janáček conductors in the business. Again, highest marks to peripherals that can bring the music closer to my emotional core.

Both are great; how do they differ?

If you can afford only one of the Acoustic Revives, I'd go with the RD-3, which made the more obvious improvements during my listening sessions. In its subtly different way, the RIO-5 II embellished those improvements.

Returning to Rostropovitch and Britten (now at the piano), this time on a 1961 recording of the composer's Cello Sonata, Op. 65 [CD, London 421 859-2], the RD-3 brought a heightened sense of drama and dimension to what moments earlier had sounded dynamically and spatially smaller. These weren't "Oh my God!" differences, but were noticeable enough to make my acquaintance with the RD-3 an elevating event.

After I'd treated the disc with the RIO-5 II, the sonata's fourth movement, *Marcia*, sounded a little sweeter in the midrange and a little more spacious. It's important to note that this recording was made nearly half a century ago. I did not succeed in bringing the performers into my listening room, but I did improve the sound of a historically significant release.

The last test was the most interesting. Saxophonist, composer, and conductor Norbert Stein's *Graffiti Suite* is big-band jazz of a modernist, dissonant character, performed by the NDR Bigband [2 CDs, German import, PATA 18; www.patamusic.de]. It's arresting stuff, and of particular importance to this report is the production by NDR Hamburg, which, in terms of air and ambience, sounds almost anechoic. Killer bass, ripsaw brass, punch enough to knock out a tooth, all tightly wrapped in its peculiarly restrictive space. I've been making the point that the two Acoustic Revive accessories exercised a positive, synergistic effect on soundstage dimension and spaciousness. What effect did they have on a recording that goes out of its way to minimize airiness?

The operative word: *dramatic*. The NDR Bigband gained in drama and immediacy. Neither the RD-3, nor the RIO-5 II as a follow-up, created a silk purse, but they did bring a spatially tight production closer to where I respond. These entirely engaging accessories did *not* operate as redundancies, and here's where my fingertips become tongue-tied. What the RD-3 accomplishes the RIO-5 II embellishes. That's the best I can offer.

Other voices, other rooms

I treated with the RD-3 and RIO-5 II a CD-R from a friend in Cornwall. Before she retired, soprano Dorothy Dorow was often asked to perform the music of living composers. For but one example, Luigi Nono wrote *Canciones de Guiomar* for her in 1962-63, to a text by Antonio Machado. Dorothy tells me that, among others, Giacinto Scelsi, the nutcake Italian count who wrote astonishing music, tried hitting on her (unsuccessfully) with his stock-in-trade mesmeric gaze.

Dorothy Dorow Sings Schönberg offers two works with orchestra and the *Cabaret Songs*, which Dorothy performed (for this event) in 1988 with the Dutch pianist Tan Crone. The sound is nothing to write home about, but the *Cabaret Songs* emphasized the RIO-5 II's contribution to the two-part Acoustic Revive drill, a contribution I rate as superb. This time I'll replace *dramatic* with *lifelike*, though in this context the two words effectively signify the same thing. The impersonation of reality by the soundstage and its contents improved remarkably. Dorow's noticeably richer voice was more clearly "there," as was Crone's now more dynamic piano. Why Joe Cohen was especially eager for me to try the Acoustic Revives with a CD-R was no longer a mystery, even if what the RIO-5 II actually *does* to such discs remains in that category. Whatever, those intangible negative ions are worth their weight in 24-carat quarks.

I was less sanguine about the ARs' effect on DVDs, but no surprise there. My meticulously assembled, very-high-end audio system resides in the living room; a garden-variety TV and DVD player, cable box, and tangle of throwaway jumpers occupy another room. You can guess where this is going.

I played a DVD of Kaija Saariaho's opera *L'Amour de loin* [Deutsche Grammophon B0004721-09] in three stages: no treatment, RD-3, RIO-5 II. After the disc had received both Acoustic Revive procedures, the picture's colors were perhaps a little richer and smoother. With respect to definition, it was more difficult to say. I'd be much happier declaring this part of my comments a nonstarter.

Here's what I *can* say: The Acoustic Revive RD-3 Disc Demagnetizer and RIO-5 II Negative Ion Generator worked remarkably well with quality components. And they're staying right here.

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Acoustic Revive RD-3 Disc Demagnetizer
Price: \$399 USD.
Acoustic Revive RIO-5 II Negative Ion Generator
Price: \$595 USD.
Warranty (both): Two years parts and labor.

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