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Positive Feedback ISSUE 65
january/february 2013



high fidelity cables



CT-1 Interconnects

as reviewed by Bruce Kinch





BRUCE KINCH'S SYSTEM

LOUDSPEAKERS
Amphion Xenon.

ELECTRONICS
Herron VTPH-1 tube phono and VTSP-1/166 preamplifier, and a Michael Yee PA-2 amplifier. Aqvox 2 Ci Mk II phono stage, Bent Audio TAP Transformer Volume Control, Bel Canto e.One M300 monoblock amplifiers.

SOURCES
Nottingham Analogue Spacedeck, Rega Planar 3, Thorens 121, and Logic turntables. Lyra Lydian Beta, van den Hul MC-10, and Grado Sonata cartridges. Modified Denon 2910 CD/SACD/DVD player. Cambridge Audio 840C CD player.

CABLES
JPS, van den Hul, Nordost Heimdahl, and Reality Cable interconnects. Eichmann Express 6 II, Nordost Red Dawn II, and Harmonic Zen speaker cables.

ACCESSORIES
An accumulation of the usual bricks, mats, cones and pucks.



For an audiophile such as myself, *The Rocky Mountain Audio Fest* is a calendar event akin to an annual pilgrimage. It's a rare chance to mingle with the minor gods of industry, three days of good, better, and (if only occasionally) awesome sound. I arrived this year with no agenda, and queued up in the hotel lobby to get my Press badge. The vast majority of demo rooms are upstairs in two towers, and crowds are already jamming the notorious elevators. I decide instead to hit the vinyl vendors in a ballroom off the lobby, but just as I turn to head back that way, I notice two rather normal looking people sitting at a table behind a few bits of shiny *wirey thingees* and a sign that says High Fidelity Cables. There are always a few such passive display tables in the lobby, mostly the print mags, DIY parts, *Audiogon*, that sort of thing. The crowds ignore them all early on, but I'm over-caffeinated and feeling chatty.

This is how I meet Rick (and Erin) Schultz. While the company name suggests a firm grasp of the obvious for an aspiring exhibitor at *RMAF*, the shiny bits turn out to be rather more than is at all obvious. Seems there are wee small magnets in the connectors, and Schultz happily makes his pitch. My main encounter with electrical theory was way back in Freshman Physics; I remember Ohm's Law and the Right Hand Rule if not much else, but I do know electricity and magnetism interact in various ways that activate the industrial world. Some of what he says is over my head, but the gist is he has the two working together in a novel (and patentable) way. Interesting, but then I'm not interested in tweak cables, especially at \$1600 per meter pair.

It's not that I've gone all Double-Blinder ala "any properly designed cable/amp/speaker will sound the same". My experience is that everything makes a difference, including the myriad permutations of conductor, geometry, dielectric, connectors, shields, treatments, etc. all legally available to the audiophile needing a quick fix. Most of them cost under \$1600, but all are more expensive than a normal person such as a spouse, CPA, or Internet Luddite would think reasonable. Like most audiophiles of a certain age, I have a box of twisted, braided, flat, round, solid, hollow, stranded, pure, plated, alloyed, cryo-ed, copper, silver, aluminum, non-metallic, and home-brew cables in

colors to suit any décor. Like the guy in "High Fidelity" whose LPs conjure up old flames, I can link each set to a system past. Each was acquired out of curiosity, optimism, or desperation. There are "Nationally Advertised Brands" and obscure Internet independents. Each made a difference, yes, but to be honest, a difference in some *character* of the sound—timbre, clarity, smoothness, extension—not a quantum leap in *quality*. As active components arrived in the system, part of the process has always been swapping cables around to find the best combination. Should the need arise, I could probably wire up a half dozen systems.

And if we're being honest, there's \$1600 many times over invested in that box.

Over the course of the show I passed the Shultz's table several times, with a nod and perhaps a few words. Nice folks. I was halfway through the weekend when the penny dropped. Shultz. As in Rick Shultz of Virtual Dynamics (not an obvious name for no-holds-barred hunky, pricy, and well-reviewed power cords and cables). As in Rick Shultz the Oddiophile of You-Tube fame (?). The recent economic meltdown apparently even reached chilly Alberta, Canada, and VD (aha!) seems to have been a yet another victim. So High Fidelity Cables may be in start-up mode, but this is not Shultz's first rodeo. As RMAF was shutting down, we had a chance to get into some details on the technology, and I agreed to take a listen for a possible review. As I had a suitcase full of vinyl, I asked Rick to send the samples.

Mr. Edison, Mr. Tesla, please welcome Mr. Shultz

You might not know that ol' Tom and Nicky had quite a kerfuffle about the [best way to transmit electrical current back in the 1880's](#). A/C versus D/C basically, from powerline distribution to household wiring, some big bucks and the industrial world at stake. Tesla ultimately more or less won, and so we have AC and DC motors, Heavy Metal bands, gender-blending, and hi-end audio.

Rick Shultz has invented and patented another way to manage the flow of electrons, which he calls Magnetic Conduction. Please, hold off the eye-rolling and snake oil snorts. Again, U.S. Pat. No. 8,272,876, look it up. You can read what he wants us *proles* to know at <http://www.highfidelitycables.com/technology.html>. If the plain English is still a bit diffuse, the plain Canadian analogy might be that it is easier to ski downhill with a secondary force (of gravity) than to ski cross-country on the flat. You can even glimpse something of where the idea came from on [YouTube](#). Obviously, the long cabin-fever Alberta winters had led to plenty of puttering about the lab, so the allusion to Edison is not without merit. Shultz employed magnets in some of his Virtual Dynamics designs, but the new products are altogether more sophisticated.

While the Virtual Dynamics gear could look like it would also be useful jump-starting the pickup on zero-minus mornings, the new cables are almost elegant (the teeth-gnashing and heel-stomping you hear is probably just Gabi over at Crystal Cables). Blame the change to the Schultz's move to Plano, TX, a suburb of bling-aware Dallas. These interconnects are slender, with a silvery woven shield inside a snug, thin plastic jacket, flexible but more springy than limp, and directional. The dedicated RCA plugs (XLR connectors are still in development) are 2-3 times longer than usual (I assume to house the *magnetry*) and chrome plated. I dislike them on two counts. First, the only Left/Right indication is a small pale gold or silver ring, and it is pretty dark behind my rack. Second, although Shultz maintains the RCA ground ring is machined exactly to official spec, it is a struggle to grip the smooth chrome connector and get the cables on/off many real-world RCA jacks. Inserting is easier than removing; for removal, I found it helpful to slip a small screwdriver between the plug and chassis and pry the suckers off. You have been warned. Fortunately, some red and white tape helped resolve both issues.

The "Pin-Lock" connectors are also complex and patent pending. Apropos the materials cost of \$1600 cables, there are 52 custom-made parts in each connector, or roughly 50 more than the RadioShack alternative. The center pin is actually split into 4 quarters, and compressed on insertion. The contact points are pre-dosed with a proprietary treatment for optimum conductivity.

A glance through any audio magazine confirms how easy it is to sell audiophiles on .99999% purity and precious metals, but you can't magnetize copper or silver. The CT-1 conductor needs to be magnetically permeable. I presume that means some form of mu metal. The wiki on mu metal suggests 77% nickel, 16% iron, only 5% copper, and 2% chromium or molybdenum, but I have no idea what is actually used. Mu metal in audiophile cables itself is not new, by the way. Back in the 80's, there was a buzz about the Lindsay-Geyer interconnects. Stiff mu metal conductors, cotton fabric jacket, minimal-metal connectors with wooden housings. They were notably resistive, but sounded quite good. I had a pair, long gone. The theory then, if I recall, was the mu metal avoided the skin effect issues of conventional conductors.

Two sets of CT-1 interconnects arrived a week or so after *RMAF*, shipped Priority Mail in plain wooden boxes. Unfortunately, one set had come loose in transit; no real damage, but I trust the production shipping containers will be better. The connectors were also quite dusty, which I assume has to do with the otherwise well shielded magnetic effects. Schultz had promised to put some burn-in time on them, but I let them cook a couple days on my Hagerman Frycleaner before plugging them in.

My current listening "room" is actually an area partitioned off from (but open to) a larger workspace and office in a finished basement—I usually play CDs while working on projects in the outer area. I ran one set of CT-1s from the Cambridge Audio 840C CD player to the Bent Audio TAP preamp, and the second set from the pre to the bel canto 150wpc monoblocks. The TAP is a transformer based passive attenuator, and extremely transparent to the source, but no longer made. Actually, I don't believe anything in my system is current manufacture. I'm not a professional reviewer with a stream of pricey loaner gear moving through. While the original MSRP of my installed gear is well north of \$10k, there are many audiophiles who would consider that amount a good starting point... per component. Likewise, that \$1600 was about right for 78" of wire. I would have to be persuaded.

About the third CD the morning after installation was *Jerry Garcia & David Grisman* (Acoustic Disc sacd-2, circa 1991). A good studio album but hardly audiophile, the principles' acoustic guitar and mandolin are panned left and right, Garcia's vocals centered, with only low-key double bass and percussion (hand drums, brushes, a bit of cymbal) and a dash of violin in the mix. I know it well, and am not above pickin' along on "Friend of the Devil" now and then. I just didn't expect to be distracted from what I was engaged in by what I heard coming around the partition, so I got up, walked around the wall and sat down.

What had distracted me was simply how "real" this familiar music sounded. By that, I mean it was—eyes closed—much easier to visualize the music making. Part of it was a surprising increase in detail, not just the actual musical information, but also the nearly subliminal finger/fret/plectrum noises, seat rustling, and subtle movements and modulations of instruments and voice, i.e., micro-dynamics. Sitting down, the second impression was of space—a broad and deep soundstage, populated with solid 3-dimensional images rather than cardboard cutouts. In *audiospeak*, "palpable". I played the disc through three times, changing out the interconnects to confirm what I was hearing was due to the CT-1s. Then followed a tour through a number of familiar CDs that played to the CT-1s' strengths. Guilty spatial pleasures like *Enya*, *Jazz at the Pawnshop*, and *Amused to Death*; Red Book resolution and imaging challenges from Harmonia Mundi, Reference Recordings, Mapleshade, Telarc and other audiophile faves. No pair or combination of other cables on hand came close to the pair of CT-1s in soundstaging, low level detail, or ambience recovery—including the XLR cables I had previously preferred over anything single-ended. That old set-up standard CD, the *Chesky Jazz Sampler and Test Disc*, was definitive. Never had the 80 ft studio sounded that enormous, nor the musical tracks as... musical. The Orquesta Nova musicians' "walk-around" my head (a figure-8 Blumlein mic, 2 speaker surround parlor trick) was an utterly convincing demonstration of phase coherence.

High Fidelity includes a dedicated phono cable in their lineup, but I had not requested a sample. Still, just prying the CT-1 interconnects off the 840C and switching them to the Aqvox phono stage to preamp run was even more impressive than using them on CD. I had been putting together a VTA gauge from Home Depot hardware, using a scratched but otherwise clean 1s/1s Shaded Dog copy of LSC-2462, the Reiner La Mer/Don Juan, as a set-up test record. Sitting back as the stylus settled in the groove, I was

treated to a hemispheric, holographic soundfield of huge proportions, the instrumental choirs arrayed across the stage behind the plane of the speakers, beyond the room boundaries, precisely located and saturated with tonal color. From a disc that I had almost dumped at Goodwill, yet. The surface noise was there, of course, but spatially forward from the orchestra, and easily ignored. Many other records followed, all reflected the cable's detail/spatial characteristics to one degree or another, and while only a few could match that Mohr/Layton RCA recording, I decided I actually did like hearing Thelonius Monk's merged notes separated, beneath his near inaudible vocalizations, and above his foot pedal action, for instance.

Tonally, I *think* the CT-1s are pretty neutral. I hear no consistent emphasis in bass or treble, but both extend to the limits of my system (and hearing). In general, to get mid-range detail and texture, you need clean high frequencies. Many audiophile products, including cables, can take this too far, emphasizing leading edge transients and resulting in the audio equivalent of an over-sharpened jpg. Not so the CT-1s. The increase in detail is a matter of top to bottom clarity, not just a treble up-tilt. Given they passed more information than my other interconnects, it should not be surprising that every amplifier and speaker cable I tried with the CT-1s sounded different, ranging from too bright to too dull, and spatially from expansive to flattened. However, I was really not expecting that the 4 sets of 6" bi-wire connectors I have on hand would also sound different. I ended up with the Harmonic Zen Satori speaker cables with Ohno Continuous Cast copper jumpers from Audio Sensibility. Of course, High Fidelity Cables has some speaker cables in the works too...

The perception of an illusion of a representation of a reality.

With apologies to Winston Churchill, that's what I think the allure of "high fidelity" is about. Music itself is abstract; symbols on paper, impulses in the mind of the improviser. Performance (live or assembled in studio) is what makes music a reality. A recording represents the "organized sounds in time and space" as frequency, amplitude, and phase changes coded in tape, disc, or file. The playback system attempts to create an illusion of the musical event from just those electrical characteristics. The ear and brain of each listener define what is perceived as "real". We learn to recognize voices over a telephone, and can learn to enjoy amplified music in a raucous arena, AM radio in a car, MP-3s on an plane. But we know what a real voice sounds like, and when live music is being played behind an open window as we pass by. The music industry and the high-end audio community have endeavored to make music sound real since before the term "high fidelity" was coined. Revisiting a 1961 RCA recording can really make one wonder sometimes...

Once you acknowledge that cables can affect the perception of recorded sound, one has to decide what a significant difference is worth. To my ears, in my system, the CT-1s are the first cables to have improved the *quality* of reproduced sound to the degree audiophiles associate with upgrading active components and speakers, where \$1600 is not considered an unusual investment.

I can still think of a dozen reasons to not buy \$1600 cables, and my wife would surely have a couple more, probably involving legal matters and institutionalization.

I can only think of a couple of reasons to spend serious money on hi-fi cables.

1. Your wife's new Tesla will save all that gas money.
2. The cables make the associated equipment sound better, forestalling otherwise inevitable costly upgrades to electronics and speakers.
3. Life is short. If you can, do it. Food of love and all that.

There are of course other \$1600 tweak cables out there that might make a different difference, but Rick Schultz believes he has built a better mousetrap, and I'm just a poor church-mouse, but I'm persuaded. If you comfortably shop in that price range, High Fidelity Cables should be on your short list to audition. Actually, if you are comfortable at \$500 for cables, I think it's time to raise the ante. If \$1600 is an insult to

your \$100,000 system, you will be pleased to learn that there are also CT-1 Enhanced and CT-1 Ultimate interconnects at \$2800 and \$4900 per meter pair, respectively.

I will not review those, thank you very much.

But I am pleading for a phono cable and speaker cables. To be continued... **Bruce Kinch**

CT-1 Interconnects

Retail: \$1600 a meter pair

High Fidelity Cables

www.highfidelitycables.com

info@highfidelitycables.com

1-972-312-1902

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