

# FURUTECH

Stereophile – Michael Fremer  
Ag-12 Phono Cable Review  
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*“The award for best performance and highest build quality at the lowest price goes to the Furutech AG-12.”*

**Y**ou couldn't pay me enough to conduct a shoot-out of 12 DIN-to-RCA phono cables. I did it anyway. Why? Because the cables were *there*, as was the SME 20/12 turntable, returned from its recent photo session for the cover of the May *Stereophile*. The SME's exposed DIN jack made switching among the candidates relatively painless.

More DIN/RCA cables are available today than are brands of tonearm that require them: SME, Graham Engineering, maybe a few others. No slight to Graham, but clearly, the large worldwide constituency of SME arm owners provides the greatest aftermarket opportunity for cable manufacturers, so it was only appropriate for the shoot-out to use an SME tonearm mounted on an SME table.

Why should this interest owners of tonearms with RCA jack terminations? I did have RCA/RCA versions of some of these cables, and the results were identical.

The cartridge was Sumiko's new, thoroughly agreeable Palo Santos Presentation (\$3500): a low-output moving-coil motor mated to an open-bottomed, wooden body that produces a detailed yet warm, inviting sound (review next month). The phono preamp was the Manley Steelhead. Preamplification was the darTZeel NHB-18NS; power amplifier was the Musical Fidelity Titan that I reviewed last month, and speakers were the Wilson MAXX Series 3, which I will be reviewing in the September issue.

My reference recordings were Eva Cassidy's version of Sting's "Fields of Gold," from the superb Hoffman/Gray remastering of her *Songbird* album (LP, Blix Street/S&P); the Modern Jazz Quartet's version of Duke Ellington's "It Don't Mean a Thing," from the mid-1960s live album *European Concert* (LP, Atlantic); and "The Loner," from a test pressing of Reprise's recent reissue of Neil Young's eponymous solo debut (LP, Reprise RS 6317).

The Cassidy track features a brilliantly recorded, immediate-sounding vocal with exacting sibilants, a carefully applied backdrop of digital reverberation, and an acoustic and an electric guitar. The MJQ

## A Dozen Phono Cables

track, recorded live in Scandinavia, is particularly tricky: John Lewis's subtle piano and Milt Jackson's cool, bell-toned vibraphone are set against Connie Kay's shimmering cymbals and Percy Heath's elegantly simple bass lines, which occasionally seem to strike a sympathetic note with the hall's acoustics.

In fact, the MJQ track was a painful choice. When I was home from college back in 1966, I was playing not the Stones or the Animals but "It Don't Mean a Thing," from *European Concert*—and not all that loudly, either. But the door to my room was closed, and I couldn't hear my father calling me. He threw open the door, ripped the record from the Dual 1009SK turntable, and broke it over my head, using so much force that the thin disc of flexible vinyl broke in two. So if you wonder about my vinyl obsession, you need look no further than that episode. I got even with him big time, and continue to do so with every LP I add to my collection.

Each cable was burned in with an Audiopharma Cable Cooker for 24 hours, then took another 30-minute hit just before being auditioned. Along with listening and taking notes, I recorded each phono cable's performance at 24 bits/88.2kHz using my BPT-modified Alesis Masterlink hard-disk recorder (decoded by the dCS Scarlatti's DAC), so that I could later easily compare my notes with a second listen.

### Contenders

Here are the dozen phono cables I listened to, in alphabetical order:

<b>Crystal Cable</b> Micro	\$850/m
<b>Crystal Cable</b> Ultra	\$3750/1m
<b>Esoteric</b> 8N	\$2200/1.2m
LE Reference	(uses 99.999999% pure copper)
<b>Hovland Music</b> Groove 2 (new)	\$935/1.25m
<b>Hovland Music</b> Groove 2	(original, discontinued; used as reference)
<b>Kubala-Sosna</b> Emotion	\$3000/1.25m
<b>Furutech</b> Ag-12	\$429/m
<b>Momentum</b> Signature	\$449/m



Esoteric's 8N Reference is the winner!

<b>Synergistic Research</b> Tricon Analog	\$900/m
<b>TARA Labs</b> Zero GX	\$3800/m
<b>van den Hul</b> Orchid (PVC-free)	\$679/m
<b>van den Hul</b> D-501 Hybrid (halogen-free)	\$450/m

(stock cable supplied with SME 312 tonearm)

None of these cables is cheap, and all are well-manufactured using premium parts. The angled DIN plugs were mostly either from SME or Cardas (some, like those on the Furutech and Esoteric cables, are proprietary), while the RCA plugs were sourced from a variety of top-shelf manufacturers or were also proprietary. Internal wiring varied as well, but rather than prejudice my responses and perhaps yours, I chose not to inform myself about whether the conductor itself was silver, or copper, or both—or some other material, for that matter—or how it was constructed. Nor do I have the space here to delve into all that. The information is easily found online.

First of all, there were audible differences among and between all of these cables, both when I listened to them playing LPs "live," and then again when I played the digital recordings I'd made of them. The differences weren't monumental, but they were significant. Enough to warrant an expenditure of hundreds, perhaps thousands of dollars? Your call.

Could I tell one cable from another in a blind test? I wouldn't bet on it, but

there were differences that made a few of them seem to excel—at least in the context of *this* front end in *this* system. When it comes to reliably transporting ultralow voltages from a cartridge's pins to a phono preamp's inputs, if you've already dropped a load on a turntable and tonearm and cartridge, skimping on cables is out of the question.

### Dwelling on Cassidy's voice

The Esoteric 8N LE Reference, up first, handled Eva Cassidy's sibilants cleanly, without smearing or accentuation. In that regard it was among the best, if not *the* best: ultraclean, yet precise and extended on top. The middle range of her voice was rich, smooth, and coherent. As she went into her lower registers, there was none of the bloating or spatial confusion that some of the other cables produced. Cassidy's voice was, at all times, cleanly separated from the reverb's low-range warmth. Her image, pleasingly compact and three-dimensional, remained intact and fully formed regardless of what range she sang in—and that wasn't the case with every one of these cables.

Overall, the Esoteric's ideal balance of attack, sustain, and decay produced a vivid, three-dimensional picture that was tonally and physically inviting, and a clear improvement over the stock van den Hul cable SME provides, especially in terms of midband resolution.

TARA Labs' Zero GX was slightly tipped-up on top compared to the Esoteric, with greater accentuation of the sibilants, a noticeably more pronounced expression of the reverberant field, and a less generous midrange projection that gave the voice a slightly recessed and distant quality.

The acoustic and electric guitar attacks were more pronounced and precise, and were accentuated relative to the sustain, producing exceptional detail, though the "edge" emphasis was at the expense of both the instruments' and the singer's bodies. The result was a somewhat recessed, analytical picture somewhat bereft of physicality, pressed farther back in space compared



Best Value goes to Furutech's Ag-12 for its high build quality and performance at a reasonable price.

to the Esoteric (and some of the other, more midrange-rich cables). The TARA would definitely be a good choice for detail devotees, especially if your cartridge or phono preamp is on the rich side.

The Furutech Ag-12 more closely resembled the Esoteric tonally, with superclean sibilants, a rich midrange, and great warmth evident in the reverberant field's lower registers, again with the vocals and reverb not blending together and causing bloat. The picture was not quite as spacious or well defined, however, nor was it quite as extended on top. The Furutech was like

the Esoteric's little brother.

Kubala-Sosna's Emotion accentuated the midrange and upper midbass, and thus Cassidy's voice was projected noticeably forward in the mix, producing a pleasing, velvety, reach-out-and-touch-it image, though in her lower register the reverb and voice occasionally seemed to beat against each other, growing the image size and occasionally causing it to dissolve in the reverb. Transients were slightly softened compared to the cables with the fastest attack, producing a lush acoustic guitar and a somewhat plush electric one. The K-S Emotion sacrificed some transient detail and speed for the sake of lushness and rich physicality, and will better complement lean, detailed cartridges than those that sound warm and rich.

The original Hovland Music Groove 2—once my reference—was relatively warm and slightly soft, like the Kubala-Sosna, but with less midrange "push" and a cleaner, faster attack. It produced vocals that most closely resembled the Furutech, with cleanly rendered sibilants. Its strong suit was a pleasing overall balance.

Hovland's *new* Music Groove 2 pro-

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duced big improvements in detail, lower-midrange clarity, and cleanness of attack over the old model, consistent with what Luxman importer Philip O'Hanlon and I heard last year, when we compared the old and new Hovlands in RCA/RCA configuration used between the TLA transformer and phono preamp. The Hovland produced a pleasing, well-balanced picture that combined clean attack, precise sibilants, midband richness, plenty of body, and long, detailed decays. An all-around excellent performer.

The Crystal Cable Ultra delivered a unique tonal balance that was slightly forward in the upper mids and slightly dark in the lower midrange. The result was a pleasing immediacy that "looked" like a black-velvet painting. Cassidy's voice was somewhat recessed in the middle, with the breathiness and sibilants accentuated but not smeared. The Ultra was the "anti-Kubala-Sosna," sucking in where the K-S pushed out. It's also very stiff, and not recommended for use with



The Cable Survey Sweet Spot: Hovland's Music Groove 2 (foreground) and Synergistic Research's Tricon Analog.

suspended turntables.

Synergistic Research's Tricon Analog produced pleasingly lush but detailed and well-controlled vocals, clean sibilants, and an ideal balance of direct to reverberant sound. The overall picture coherence was outstanding, and for whatever reason or reasons, Cassidy's emotional outpouring was more immediate through this cable, which seemed to express more of what her vocal cords were doing than did any of the others. I reacted really positively to this one. Like the Hovland, the Tricon Analog was an all-around excellent performer.

## CONTACTS

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**Esoteric**, a division of TEAC America, Inc., 7733 Telegraph Road, Montebello, CA 90640. Tel: (323) 726-0303. Fax: (323) 727-7656. Web: [www.teac.com](http://www.teac.com).

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**Hovland Company**, 1545-A Pontius Avenue, Los Angeles, CA 90025. Tel: (209) 966-4377. Fax: (209) 966-4632.

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**Kubala-Sosna Research LLC**, PO Box 505, Cedar Knolls, NJ 07927. Tel: (973) 993-1952. Fax: (973) 538-5615. Web: [www.kubala-sosna.com](http://www.kubala-sosna.com).

**Momentum Cable**, Web: [www.momentumcable.org](http://www.momentumcable.org).

**Synergistic Research**, 17401 Armstrong Avenue, Suite 102, Irvine, CA 92614. Tel: (800) 578-6489, (949) 476-0000. Web: [www.synergisticresearch.com](http://www.synergisticresearch.com).

**TARA Labs**, 550 Clover Lane, Ashland, OR 97520. Tel: (541) 488-6465. Fax: (541) 488-6463. Web: [www.taralabs.com](http://www.taralabs.com).

**van den Hul**, The Netherlands. Web: [www.vandenhul.com](http://www.vandenhul.com). US distributor: Bluebird Music Ltd., Toronto, Ontario, Canada. Tel: (416) 638-8207. Fax: (416) 638-8115. Web: [www.bluebirdmusic.com](http://www.bluebirdmusic.com).

The van den Hul Orchid produced a stark contrast to the Synergistic, and I'd wager I could tell one from the other in a double-blind test. The Orchid was dry to the point of being parched, bright, and lacking in harmonic richness. Sibilants were accentuated and slightly harsh, and the balance favored vocal cords over body cavity. Detail came at the expense of colors and textures. The Orchid was all about the hard outer surface, and not at all concerned with the gooey center. My least favorite cable in this test, it reminded me of the months I had the Continuum Audio Labs Caliburn turntable wired with Nordost tonearm wire.

Crystal Cable's Micro was similar to their bigger Ultra, but on a less generous scale, with less of the dark quality in the lower midrange. This seemed to tip up the cable's overall personality to produce an overall brighter, leaner, but less-closed-in sound that some might prefer to the more expensive Ultra. I did.

Momentum's Signature cable was subtle, producing a great deal of delicacy and detail, accentuating somewhat the sibilants and the reverberant field,

but keeping them very clean. It did a good job of differentiating the textures and attack characteristics of the acoustic and electric guitars. Cassidy's voice was slightly on the thin side, presenting more mouth and vocal cord, less chest. Overall, it was similar to the Crystal Micro.

The van den Hul D-501 cable supplied with SME's 312 arm was fuller, richer, and far more listenable than vdH's Orchid. It couldn't match the detail and spaciousness of some of the best performers, and it slightly softened the acoustic guitar's plush yet detailed attack, yet overall tended to sound a bit recessed and sterile in the midrange.

The highest-performing cables reproduced Cassidy's voice coherently and consistently in three dimensions, creating an illusion of the singer in front of me. The worst ones produced a thin picture of her throat and mouth, submerging and obscuring the lower registers into a reverberant mush shared with the guitars: no illusion of a real person singing.

#### Modern Jazz Quartet: "It Don't Mean a Thing"

The results with this recording were

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remarkably consistent with the Cassidy findings. The cables that couldn't produce a coherent vocal, and created lower-midrange confusion, did the same with the Modern Jazz Quartet recording.

The cooler cables, like the vdH Orchid and the Momentum, accentuated the vibes' attack and missed some of the warm, shimmering bell tonality of that instrument. The cool cables also diminished the true color of Connie Kay's cymbals, turning the sound of bronze into a somewhat harsh, bluish-sounding ooze, and producing handclaps that sounded less like flesh than like rain on a tin roof—at least through my system.

John Lewis's delicate keyboard counterpoint to Jackson's melodic vibes were rendered with varying degrees of textural, tonal, and harmonic clarity by the Esoteric, TARA, Furutech, Kubala-Sosna, Hovland Music Groove 2, Synergistic, and Momentum cables. All were credible. Each of these cables was also capable of cleanly rendering Percy Heath's pluckings of his bass, and keeping in the lowest frequencies from sinking into the hall acoustic.

The cables that performed best in

this test produced a convincing rendering of the MJQ recording—one I hadn't played in a number of years. I was surprised by how good this recording could sound, its many "anomalies" turning out to be issues of reproduction, not of the recording itself.

Within a spacious hall setting, the better-sounding cables produced solid, three-dimensional images of the four musicians standing and sitting in a semi-circle: John Lewis, center-stage right; Milt Jackson, center-stage left; Connie Kay, just to the left of Jackson (the drums on some tracks widen unnaturally across the stage width); and Heath dead center.

Lewis's piano is down in the mix relative to Jackson's vibes, especially when all four are swinging. Each keystroke should be clean, and the resulting harmonic overtones should sound distinctly like a piano: with a crisp, percussive attack, a rich sustain, and a short, round decay. The better cables managed this. The lesser ones softened the transient and/or lost the harmonic structure in the hall reverb.

#### And the winners are . . .

If I had to rate these cables on the SME

312 tonearm, using the Sumiko Palo Santos Presentation cartridge in my system (and I know you want me to), I'd put the Esoteric 8N LE Reference at the top overall, followed closely by Hovland's new Music Groove 2 and the Synergistic Research Tricon Analog, then the TARA Labs Zero GX, the Kubala-Sosna Emotion, the Furutech Ag-12, the Momentum Signature, the Crystal Cable Micro, the Crystal Ultra, the van den Hul D-501, and, last and least, the vdH Orchid.

Two caveats: With a system or cartridge that sounds somewhat recessed or thin in the midrange, the Kubala-Sosna Emotion would probably be near the top of this list—as would the TARA Labs Zero GX, with a system weighted toward the midband.

The sweet spot in all of this, and the cables that, I predict, would work well in *all* kinds of systems, would be the Hovland Music Groove 2 and the Synergistic Research Tricon Analog, both of which cost under \$1000 and are also available in RCA/RCA configuration. The award for best performance and highest build quality at the lowest price goes to the Furutech Ag-12. ■