Product Review

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Cables aren't something I go looking to review. Regardless of directional properties, geometry, reactive qualities, or dielectric constants, they're slippery any way you grab them. I mean, really, if you get right down to it, a lot of audiophile approved cables cost quite a bit of cash and, hopefully, give you close to nothing in return (nothing in terms of effect on the signal passing through them). A source (CD player) transcribes a signal from a medium (the CD). A preamp/processor provides switching and control functions, a power amp provides voltage and current gain, and speakers translate that electrical signal into air pressure waves. They all do *something* to the signal . Cables ideally do *nothing* to the signal but pass it through. And there's the controversy, because they actually still do something, even though it may be close to nothing.

One contingency claims that cables do not, under any circumstances, make an audible difference whatsoever, and to spend money replacing the ones that came with your $99 CD player is pure folly. There's also another camp that, while arguing amongst itself about the specifics of their sects, unites to convert those not fully convinced that special cables based on space-age, bleeding edge technology are the only true paths to the elusive specter of musicality. In their eyes, failure to acknowledge such obvious dictums stigmatizes oneself as an ignorant heathen, destined to go without true enlightenment. As you can probably already garner from these characterizations, my butt flops down somewhere between these extremes, not only because it fits my own experience, but also because, usually, the middle is closer to the truth.

Now one (including myself) can fling a pebble-packed snowball from either trench. I've heard differences in cable performance that I can't explain without resorting to abstract quantum physics or my imagination. From the other direction, I've seen many cable claims based on so much dookie, whose sonic performance mirrored their "creative engineering," i.e., they sucked. Ultra-high performance cable, costing tens of thousands of dollars, leaves me gasping hysterically. And so I've concluded that even though simple $10/pair interconnects and standard OFC (Oxygen-Free Copper) 12 gauge zip-cord won't kill you (and actually surpasses some very expensive stuff), one can do better when searching for the ultimate transmission of information between components and speakers.

This brings us to a question that we, as audiophiles, must ask ourselves in order to find our most "ideal" sound reproduction given our personal means and needs. What are we trying to achieve anyway? The most transparent cable sounds nice in principle, but sometimes a slight compensation (all cables act as filters more or less) can lend a Zen kind of balance, making the system as a whole that much more enjoyable. If it feels good, do it. Buy what you like, but don't get me involved in any hocus pocus.

So why did I call Kimber Kable and ask for a few review pairs of their new Hero Interconnects? I'll tell you a few reasons. They look cool, a previous experience indicated that they sounded fairly nice, they're not ridiculously expensive as far as audiophile cable goes, and they come with gorgeous RCA terminations made by WBT.

Let's start with those sexy WBTs. I quote, direct from the man at Kimber, who distributes WBT products in the United States:

"WBT-0147 Midline solder type "locking" RCA type plugs. $60.00 for all four connectors. This same connector purchased separately lists for $70.00 for four here in the states."

"WBT-0108 Top-line crimp type "locking" RCA type plugs. $120.00 for all four connectors. Same WBT-0108 purchased alone list for $140.00 for four here in the states."

They ain't cheap, even including the price break when purchased with the Hero. You can, if so inclined, consider the connectors an investment. In my opinion, they're the kind of connector one might decide to keep for life. They're the nicest looking, most functional, sturdy RCA connectors I've ever found. They'll grip the jack when locked down, but like a well-trained hunting dog, will release on command without protest. Other RCAs I've tried might have gripped like a pit bull, but wouldn't let go, and sometimes ripped off the input jack itself. I just don't want to subject my equipment to that.

The difference between the two, aside from a silverish finish on the 108 vs. 147 (the 147's anodized black can scrape off if severely abused, while the chrome of the 108 stands up to thrashing), is the termination method. While the 147 relies on solder to secure the connection, the 108 crimps. Contrary to what one might intuitively think, a crimp with sufficient pressure to maul the conductor forms a gas tight connection superior to soldering. Can you hear the difference? I don't know, but there's also another benefit. With a small torx wrench (which will run you about $2), you can modify your cable to suit your required length without the mess or hassle of soldering. I found that absolutely helpful while resizing and experimenting with this cable. But wait, there's more. Keep 'dem pants on, I'll get to that part.

The jacket itself is a plastic weave, chosen for electrostatic dissipation properties. I'm going to stick that one also in the I dunno file. I can't lend any insight into the effects of static electricity, so I'll refrain from making an idiot of myself. But, I would assume it is better to dissipate static charge away so that it does not end up in the conductors. Anyway, it does look nice. Quite chic.

Kimber calls the stranding of the copper wire *Vari-strand*, which translates to different wire sizes used to make up the stranding of each conductor. Theoretically, this means that the smaller gauge wire, which would be less prone to a "skin effect" at HF (click here for definition) would act as a sort of bypass (like a bypass capacitor in a power

supply) to extend bandwidth. Usually, skin effect becomes more of an issue at radio frequencies, but it doesn't hurt to minimize it anyway. Nobody ever criticized much in the world of high-end audio for overkill. When you think of it, overkill, by high-end standards, is just right.

The copper itself, they call *Hyper Pure*, their trade mark for really pure copper, supposedly as pure as technology allows. Fine by me, can't hurt. So far so good, nothing kooky going on.

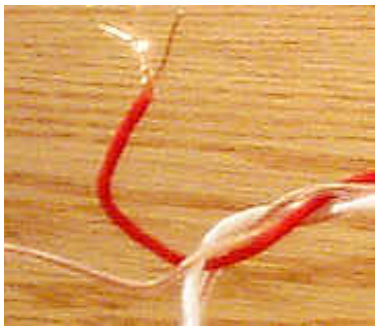
Each cable, whether balanced or single-ended, uses four conductors. Two are drain wires, and two "hot" signal carriers. The drain wires are insulated in what appears to be some sort of plastic, while the hot signal carriers are insulated by *Dual-density Teflon Composite (DTC)*, another Kimber trademark. Kimber claims a similar dielectric constant as Teflon, but with better electrodynamic properties. I don't know exactly what electrodynamic means beyond regular reactive qualities (inductance and capacitance). Teflon is one of the best insulators, but it can also corrode copper. The DTC's inner dielectric is made from another polymer, and so may protect the copper from corrosion. Silver plating works too. I would have liked it if the drain wires, which act as the return path, also used the same Dual-density Teflon Composite, since it would ensure an identical impedance on the return path and possibly even greater noise rejection, but it would probably jack up the price too.

These four wires are then wound in what Kimber calls a *GyroQuadratic* geometry. No, nothing to do with quadratic equations. Imagine a single twisted pair. Twisted pair geometry, which resembles the Helix of DNA, provides very good noise rejection because the two conductors are never parallel. A pair of parallel conductors, such as a 300 Ohm dipole, make very good antennae for the very same reason, but with opposite effect. That's why they are used for antennae. For audio interconnects, though, picking up RF or any noise is a bad thing.

A popular alternative to twisted pair is a single conductor that uses a shield as a return path (ground), such as 75 Ohm coax cable. This geometry tends to have lower parallel capacitance, and hence, greater bandwidth. However, when using the shield as the return path, noise absorbed by the shield dumps onto the ground of the receiving input, which introduces noise in the voltage potential difference between the "hot" and ground, which then manifests as noise in the signal. Not good for audio either.

Shielding a twisted pair may reduce noise pickup, but, in addition to increasing the total capacitance of a twisted pair, if the shield isn't grounded properly, it can also dump the noise into the signal the same way a coaxial cable can. Besides, no shielding, short of metal conduit, will do anything for lower frequency noise, like 60 Hz AC line hum. So, all in all, unshielded, twisted pair is generally a safe bet, especially for unbalanced

connections that don't have the inherent noise rejection of balanced inputs and outputs. Twisted pair geometry works for the phone companies who run miles of cable that just beg for noise pickup!



Kimber takes it a step further, doing the twisted pair thing twice, but counter-rotating the first pair with the second, so that all four conductors avoid parallel paths at any point. It's quite simple, but just as ingenious.

For a balanced application, the normal and inverted signal each have their own return/ground wire. If the balanced cable used only a single ground wire, that wire could be more parallel to each of the hot conductors, possibly inducing more noise. At the same time, though, so long as the effect were equal in amplitude and time, the balanced input would cancel it. But, as cancellation can't be absolutely perfect, why not avoid it (noise) in the first place?

In an unbalanced application, what we've got are double runs without sacrificing the noise rejection of a single twisted pair. There is a cost, but with that cost comes two benefits. The cable benefits from both halved resistance and halved inductance. These properties, in series with both the input impedance, usually have more of an effect in speaker cable where their magnitude is proportionally greater in comparison with the load. But, in any case, resistance may lower current delivery and inductance limits high frequency extension.

The cost of doubling the conductor runs is doubling the capacitance of that single run. Since that capacitance runs parallel to input impedance, it will combine with the relatively high output impedance of a source component to essentially shunt higher frequencies to ground. Since the bandwidth limit of the interconnect cables, in classical electronic theory, is dominated by this capacitance and the output impedance of the source, the greater the capacitance, and the greater the output impedance of the source component, the greater the high-frequency roll-off. Is this bad? Maybe, maybe not.

Double Duty

Cables are funny accessories. A marginally capacitive cable may tame bright sounding systems while still maintaining extension beyond the range of human hearing by introducing a slight taper and phase shift, which may then complement the system as a whole, especially since many speakers have a rising on-axis response in the treble before ultimate roll-off. In addition, this capacitive property can shunt, to some extent, RF noise generated or picked up by CD players or preamps along the way. Some might consider RF rejection more important than a slight loss of ultrasonic bandwidth. Essentially, cables can be used as filters. It's not an appealing idea to some who consider themselves ultimate purists, but if they choose, nobody's forcing anyone to use anything, except maybe the FCC.

There is, though, a problem in depending on the filtering abilities of a cable. Without knowing the characteristics of the entire system, it's unpredictable. Change the length, you've changed the filter. Change the source, you've changed it again. Because of this, overly capacitive cables might inadvertently suck all the life out of your treble. In my opinion, that's a bad thing. So what you're probably wondering is, how did our Hero do in listening tests? Our Hero can gracefully swing both ways, if persuaded.

Evaluation Setup

Before we get into the sonics, I'd like to explain that I did everything reasonably possible to avoid giving the Hero a fair shot. What kind of Hero thrives without the odds against him anyway? I compared 2-meter lengths of Hero against half-meter lengths of DH labs Silver sonic. The Silver Sonic, is a foil shielded (properly grounded at the source end by yours truly,) twisted pair of Teflon-insulated silver conductors. All in all, pretty plain Jane, with good bandwidth and good noise rejection. Running very short lengths of it, I've tried to come as close as possible to nothing as one can reasonably expect. I would have liked to compare the Hero to the ultimate reference, nothing, but I couldn't find 4 pole, two position switches at a reasonable cost in time for the review. Sorry about that.

The other feature which our Hero had going against it was my passive attenuator. Without any buffer stages, the virtual output impedance of the potentiometer simulated between 30 and 20 k-Ohms (most preamps have output impedances in the range of 100 ohms to 1 kohm, a couple even as low as 10 ohms) at my preferred listening levels. Less important, but still consequential, is the fact that the input impedance at the attenuator was about half that of what most preamps would provide, increasing any possible effects of resistance and inductance. Enough of this banter, the sound, the SOUND!

Listening Tests

Noise rejection was excellent. Even draping the excess length through a multitude of power cords didn't elicit any hum or buzz. Our Hero gracefully maintained quiet in the electronic background, a feature I could only really appreciate in the middle of the night when my neighbor's gardener wasn't gunning his gasoline-powered leaf blower. They should really outlaw those things.

I switched back and forth between the Hero as shipped and my DH labs, and pretty immediately (within two back and forth cycles) noticed a warm, pleasant, finely textured character . . . for the most part, transparent in the most appropriate sense of the word. The highs did lay a bit back, but not in the extreme way that robs the music of vital detail. It just made some of my bright recordings a little more pleasant, focused the center stage a tad, but slightly nudged out a sense of airiness in my best recordings, possibly features affected by the higher total parallel capacitance. This configuration might suit a whole lot of people. A friend changed out some more expensive interconnects for a pair of 2-meter Heros, with the WBT-0147 connectors, and found the change a great benefit. Previously, the sound of his system had been hard, metallic,

and altogether, in my opinion, utterly disgusting. After fitting the system with a pair of Heros, the high frequencies became almost feathery soft and light, but without a loss of detail. Considering that the system's total retail worth exceeded $15,000, the price of the cable, given the dividends, could be thought relatively inconsequential.

Let them eat cake!

But still, with the mid-line WBT-0147 connectors, you're looking at $160 for a 2-meter pair. You can get some good food for $160. And, as cables sometimes act unpredictably from system to system, perhaps, after buying these suave numbers, and living with them for awhile, you change your mind. Now, hypothetically, you want to go for the more airy, extended sound with the more expansive soundstage, but still want to avoid that tinny, artificially bright irritation. If that's the case, you're in luck. No harm, no foul.

While pondering my empty moments, I wondered about pulling out the grounding wires, eventually did so, and split the pair of "hot" conductors. Using one as ground, we ran a twisted pair of *Hyper Pure*, *Vari-strand*, *Dual-density Teflon Composite* insulated conductors, sans shielding. Guess what. I got back the airiness and expansiveness but sacrificed, to a small extent, the soft, warm character and pulled-in focus. So? You can have your cake and eat it too, just not at the same time. Yum, yum, yummy. I doubt if Kimber Kable intended this feature but it's nice to have. The crimping connectors, at this point, might be also well worth the extra expense. Do, though, set aside some time if you plan to wind the ground shields back in. It's a pain.

Conclusion

So, if you've got your audio components and speakers selected, primed for a finishing touch, and are interested in an inherently smooth, warm, and somewhat effervescent cable, capable of conveying the full detail of recordings, but still feel uncomfortable with long-term commitment, Kimber's got your Hero.

Karl Suager

For the record, here are the associated components used in this review.

Infinity Renaissance 90 Loudspeakers
NEAR 15Ms, 10Ms, and JIB Center channel speakers
M&K S-85 & s-80 satellite speakers
Aragon 8008BB power amplifier
Passive controller w/50 k Nobel Pot
DH Labs Silver Sonic interconnects & speaker cable
Bybee/Curl prototype power purifiers
API Power Pack V AC line conditioner
Denon AVR-3200