

# MasterBuilt Audio Reference Cables

A Fine Balance

**Greg Weaver** 

asterBuilt Audio may be a relatively new name to you, but the company has been around for more than a decade. In fact, I first received an 8-foot set of MasterBuilt Audio bi-wired speaker cables to review for another journal in January 2008, which was almost immediately after Von Schweikert Audio started to represent MBA. Then, as now, there had been a strong predilection to safeguard details on both the people behind and the proprietary technologies used by MasterBuilt. In fact, that is to some large degree why a company like Von Schweikert Audio was chosen as the worldwide distributors of the product line. With such a plan, the owners and engineers behind MBA have effectively limited the amount of interaction they need to have with the public.

There seems to be good reason for MasterBuilt's silence on these matters. The four partners involved in the development, design, and creation of these products are all full-time employees of a leading aerospace contractor, where they all work making cables, wiring systems, and electronics. The cables are created and crafted by a group of scientists who also happen to be audiophiles. Besides the founder, who has a masters in Materials Science and Engineering, three other engineers participate in the development of the MBA cable lines, including a metallurgist, an electrical engineer, and a mechanical engineer. Master-Built Audio is a passion for them, not their primary profession, and the nondisclosure agreements they've signed to work for the government prevents them from saying much about either themselves or the proprietary technologies and metallurgical processes and the resultant specific alloys they employ.

The roots of MasterBuilt Audio can be found in the U.S. aerospace program, where these contractors developed wiring systems with low-reactance cable for use in the Apollo lunar missions and other NASA projects, such as the International Space Station. When the founder of MBA first chose to study metallurgy and electrical engineering, it was never his intent to design products for the highend audio industry. But as a music lover, by 2001 he noted that some of the most successful cable companies with extremely powerful marketing campaigns failed to employ even the most basic principles of signal transmission, with many making hyperbolic technological claims that to this day go unchallenged, much less substantiated. Because of his love of music and his growing dissatisfaction with a good number of cable companies he saw as being less than completely honest about their designs, he decided to widen his research to include audio cables, and he put the thrust of his education and experience into what would become MBA.

In 2007, while attending an audio show, the main owner of MBA ran into Albert Von Schweikert. A conversation started that soon led to the discussion of the technology and engineering behind the cables. Albert was intrigued by the devotion to engineering and unique metallurgy of the design, and he asked to audition it. That initial evaluation of what would come to be known as the Reference line, under examination here, impressed him so much that he requested cable to test as internal wiring in the VSA product line, which at the

time used the Analysis Plus Silver Oval. Today, the MBA Signature series cable is used internally in all VSA products, save its flagship Ultra line, which utilizes the out-of-this-world-sounding (and priced!) MBA Ultra line.

In September of 2016, Damon Von Schweikert assumed the role of CEO at VSA, and along with partner and V.P. of Marketing Leif Swanson formalized an agreement with MBA to retain global distributing rights and marketing responsibilities. The MasterBuilt Audio website was launched this past summer, along with global distribution. The strategy is quality over quantity. Von Schweikert and Swanson advocate that the cables must be heard to understand the value they offer in a customer's system, and they choose dealers and distributors who support that philosophy.

Today there are four levels of MBA cable, starting with the entry-level Performance, moving to the Reference (under examination here), then the Signature, and culminating with the Ultra, made of a unique undisclosed alloy. The Ultra line has made some impressive showings over the past two years, in conjunction with the release of the Von Schweikert Audio Ultra 11 flagship loudspeaker, typically paired with VAC Statement electronics.

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Given MBA's desire for privacy, there isn't much detail I can share with you about the Reference cable's construction. MBA uses 6N (99.9999%) high-conductivity pure copper throughout, save for its interconnects, which use solid-core single-crystal copper. MBA's 100% proprietary copper formulation is extruded here in the U.S. by a manufacturer for the aerospace industry, using MBA's proprietary methods and specifications. As such, no other company in the world is using this specific copper wire formulation.

MBA acknowledges using helical and twisted cable geometry, based on engineering theory as well as extensive listening trials. The level of twists is also critical to the rejection of noise, as MBA only uses shielding when necessary to protect from EMI and RFI, such as in its power cords and digital cables. Most of the cables don't use shielding to minimize its impact on the signal.

Proprietary fluoropolymers are used in all MBA cables to eliminate signal "ghosting," and the extrusion of the insulation onto the conductor is done in a way that prevents the conductor from being oxidized by the process. MBA also employs a proprietary method of dampening inside the cable bundle to minimize the effects of vibration on the individual conductors.

Finally, MBA uses Furutech for many terminations and connectors in the Reference line like the FI-50 carbon-fiber plugcase on power cords. However, it uses OEM terminations from Viablue of Germany, as well. And that, dear readers, is pretty much all the company is willing to share.

So, in recap, these cables were developed over several decades of research into metallurgy, electrical field effects, and the chemistry of dielectric materials, and are based on years of research and A/B/X testing by scientists and the engineers of Von Schweikert Audio. As such, they feel confident in stating that MasterBuilt Audio cables offer less distortion and coloration than any other competing cable at any price.

#### **Full Loom Risin'**

Leaving my reference cable loom in play and only swapping out a pair of interconnects here (or a set of loudspeaker cables or even a power cord or two there) simply would not give me an accurate or complete picture of the sound of the cables under evaluation. In essence, that would be akin to seasoning the sound, like a cook adding salt to a stew or spice to a pie before baking; while it may please one's (sonic) palate, it is not an authentic representation of the actual "flavor." As such, I replaced every cable in my system with an equivalent length and type of MasterBuilt Audio Reference. The full loom included four single-ended interconnects, one USB cable, one pair of bi-wire speaker cables, and nine AC cables. The retail price of the loom in this configuration was \$70,775.

All cables take time to season and settle, but the MasterBuilt Reference cables seemed to require a longer run-in time than I've come to expect, even when using my cable cooker. As a reviewer who must routinely substitute cables and other components, I've invested in a cable burnin device. The unit I own, the AudioDharma Cable Cooker 2.5 EFS, runs a continuous square-wave frequency sweep of about 1 VAC for interconnects and 22 VAC for speaker and power cables, oscillating from 0Hz (DC) to  $\approx 40$ kHz, and back. Several days on this device is more effective than many weeks or even months of routine play. And in my estimation, it affords more effectual, not just more expedient, results that are unattainable by simply dropping the cables in place and playing your favorite burn-in material.

Yet even after being cycled through my cooker for what I have found to be the optimum period for most cables, the MBA References still took weeks after installation to offer their best. To be fair, I could have tossed them back on the cooker for another 12-18 hours, but I really wanted to hear them, so into my system they went. (Because such a cook-in device may require an expenditure that you don't feel compelled to make, be certain to speak with your dealer about auditioning fully run-in cables in your system, as it makes a significant difference, particularly with this loom.)

#### **Bloomin' Loom**

I had some concerns early on, as the MBAs' longer than usual run-in period initially left me wanting, until their abilities in revealing inner detail, microdynamics, and overall bloom and body fully developed. But mature they did over the next month to five weeks. Once they'd developed, I was offered remarkably good bloom with copious musical body, a crucial attribute that I find shamefully absent from several other pricey entrants.

After that final maturation, one of the first attributes to capture my attention was the MBAs' ability to reach deeply into the nether regions of the bass, extracting detail and nuance with exceptional pitch definition. They created a solid sense of both the impact and skin tone from the kickdrum in the opening of The Eagles' "Hotel California," from the live *Hell Freezes Over* album [Geffen].

Their ability to recover microdynamic inflection, as well as to present macrodynamic events with proper scaling and impact, was also quite impressive. They have an arresting ability to resolve low-level detail, revealing tremendously delicate nuance with impressive resolution, easily highlighting differences in recordings from microphone individualities to recording techniques to venue distinctions. Venue size becomes apparent, recording permitting, and the rear corners of the soundstage are well illuminated and easily distinguishable.

The MBAs' overall liquidity of presentation allows them to regenerate music with a distinctly organic and natural quality, all from a velvety smooth, dark-black background. Combined with their undeniable broadband tonal balance, their rendering of timbre is remarkably

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### Specs & Pricing

Interconnects: RCA/XLR, \$4000/1m

**Digital:** AES/USB, \$2900/1.5m

**Speaker cables:** Spades/Bananas \$5200/2.5m; bi-

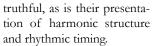
wire, \$7600/2.5m

Power cables:

\$4000/1.5m

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Stage dimensions and image specificity are represented very realistically, portrayed with proper size, engaging space, and very good focus. Their well-delineated soundstage is accurately shaped, with rock-solid, crisply fo-

cused image outlines that are fully dimensional—not flattened or 2-D in any sense. And they render an excellent representation of the air of and around instruments. A clear example of their abilities here was the spaciousness and layering of the laughing children from the opening of "School" from Supertramp's



*Crime of the Century* [Mobile Fidelity UHQR]. This delicate union of focus and air should not be taken as commonplace. It is an area where the MasterBuilt Reference series cables easily best many otherwise adequate cables that lean toward accentuating articulation over atmosphere, or vice versa.

Even in comparison to other cables considerably costlier, the MBA Reference loom yielded an exceptional musical combination of vibrant timbre, tonal truthfulness, rich harmonic bloom, and exceptionally engaging rhythmic vitality.

What I find most remarkable about them is that they successfully blend high degrees of detail, resolution, and articulation with enormous amounts of harmonic texture, instrumental bloom, and musicality, once they are properly run in. Many cables in this price range lean heavily toward either

resolution on one side, or body and bloom on the other. The MBA Reference succeeds at delivering an amazing degree and balance of both, while also maintaining an outstanding sense of timing and rhythmic coherence.

The MBA Reference cables were exceptional performers over the long haul. Their strengths are their relaxed, full-bodied nature, their musical transparency and detail, and remarkably unhindered flow and rhythmic drive. While this loom may not have been quite up to the task of allowing the voice of the Gamut Flagship Zodiac loudspeakers (\$150,000 per pair, review forthcoming) to emerge fully, with my reference VSA VR-55 Aktives (\$60,000 per pair) replacing the MBAs with much more costly cables only slightly diminished their luster.

While these cables cannot be considered inexpensive, they are exceptionally well balanced, elite performers. Given the solid engineering and metallurgy behind their design and execution, a cable so carefully crafted and engineered should readily appeal to, and be a first choice of, music lovers searching for cables that place solid design above marketing strategies. Most enthusiastically recommended. 186

