



The man behind
REL subwoofers

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beyond bass



Too often, when people think of subwoofers, they think of either cannon shots in the context of a theater setup or just something that goes “boom” in a two-channel system. Unfortunately, that’s what happens too often, and the Internet is full of people and their opinions.

Yet hearing a properly set-up two-channel system, with capable main speakers attached to one, two or six **REL** subwoofers, is a different movie, unlike anything you’ve ever experienced. When optimized to the room and the main system, REL subwoofers not only extend the low-frequency ability of your audio system but do so in a way that they draw no attention to themselves.

Beyond that, they improve the imaging and dimensionality of the system, taking resolution to new heights—even when playing music that appears to have little or no low-frequency content. And a six-subwoofer line array (three on each side of a stereo pair of speakers), affectionately referred to as a “six pack,” is otherworldly.

The only bad news is that once you’ve experienced an REL six pack, you’ll never be able to un-hear it. Especially if the system in question has been optimized by no other than REL’s chief designer and company principal, John Hunter.

I’ve met more than my share of people who *claim* to know how to set hi-fi systems up properly. The number who truly can, I can count on one hand and have fingers left. But Hunter is OB-1. It goes beyond numbers and measurements with this man. It’s instinctual, artistic and scientific all at the same time.

Fortunately, Hunter has trained his dealers to the best of his ability, and not only keeps learning more about the art of setting up and optimizing audio systems, but pushes those in his discipleship further, as well.

The only thing that compares to an afternoon watching Hunter set up an audio system is the time I had the privilege of watching Ferrari do pit practice during practice at the US Grand Prix, with Michael Schumacher behind the wheel.

Schumacher dove in the pit, his crew attacked the car like ants devouring a massive piece of chocolate cake at a picnic, and a few seconds later, he was blazing down pit lane—trying to improve on his previous laps of the day.

Schumacher’s crew chief smiles at me, “He does it all the time. On his way into the pit, he’ll radio in to tell us the right front tire is down .3 psi and the right rear is down about .5. He’s always right.”

And so it goes with John Hunter dialing in my six pack of their latest Carbon Special Black Label subwoofers (MSRP: \$30K for the set of six). I stand behind the bank of subs as Hunter listens intently, asking me to turn the controls on the crossovers a click at a time. RELs have incredibly fine adjustments.

We go through a multi-faceted approach, starting with fine-tuning my main speakers to perfection and then placing and adjusting the array, one

cabinet at a time. The final result is brilliantly executed, seamless in delivery and invisible in operation—no small feat for a 5-foot-high pile of subwoofers. There’s no going back once you’ve experienced them.

Here’s a little more info about the man behind the machines. Hunter started in retail in the late 1980s, moving on to working with various manufacturers before starting Sumiko, the premier boutique audio importer, throughout the late ‘90s and through the 2000s. During this time, he not only imported Sonus faber loudspeakers (becoming good friends with Franco Serblin, SF’s founder, in the process) but imported REL subwoofers.

Today he is REL’s main designer and company principal. The level of excellence and execution at REL is no different than that of a top F1 team—all due to Hunter’s experience and guidance.

71: John, I know you’ve been at this a long time. You started in retail back in the ‘80s, yes?

JH: I did—first in high-end car audio. We were doing bi- and tri-amped active systems using class D amplifiers and active crossovers in 1979. What car audio taught me was that I had to be an engineer and do so on the fly. An engineer is someone who identifies a problem and fixes it completely, and it’s best if you can do that fast and reliably.

I then moved on to high-end home audio. That was a revelation. The two owners of a legendary shop called DB Audio were each savants in their own right. Doug was one of the most sophisticated salespeople I’ve ever met, and Willy Hermann was like having Yoda as your personal technical instructor. I learned so much there.

71: How long was it between working the sales floor and starting Sumiko?

JH: I left retail in 1985—ran Southern California for Denon and then left and became Sumiko’s





national sales manager in 1988. It was a tiny struggling analog company at the time. As the saying goes, “necessity is a mother.”

We were analog only and had no phono cartridge designs newer than seven years. Using what I'd learned selling tons of expensive turntables and tone arms, I whipped up a cartridge from pre-existing parts. I named it the Blue Point. Thanks to a rave review from Michael Fremer, it became an instant hit that saved our company.

A year later, I designed its mate, the Blue Point Special, that removed almost the entire body, and with it, all those resonances that blur the sound and cramp the dynamics. I had to fight to get the constructor to build exactly what I had hand-built and sent them as my prototype. That proto looked like a tiny dinosaur's exoskeleton.

What they sent me was a full, heavy, cast-aluminum body. It sounded and looked awful. I fought for it to be what I envisioned. My dear friends, Stig Borge and Jonathan of Lyra Cartridges, introduced me to a Japanese box maker who built the lovely Sugi wood boxes that were affordable but elegant. That box sold the message that inside this box resides something special—something of hand-built quality.

The Blue Point Special also went on to become the stuff of legend that lasted some 23 years atop everyone's best-of lists.

In some ways, that's the story of my career. I live by a slogan the famous race car designer, Colin Chapman of Lotus, is credited with saying: “To go fast, first add lightness.” Coming to REL, that was the first thing I started doing after we bought it. (My longtime business partner, Donald Brody, and I purchased REL in 2005.)

Subwoofers then were slow, ponderous beasts. To date, we've found ways to remove around 70 percent of the moving mass, which means we're far faster, mechanically, than our competitors. Our just-released new Serie S models with

1,000-plus-watt amplifiers have about 80 percent of their moving weight from cones and the like removed. They're incredibly quick and reactive.

71: What attracted you to REL in the first place?

JH: We became their distributor way back in 1994 when we were just getting Sumiko going. Sumiko was the largest and, many say, the finest audio distributor in the history of our industry because we taught dealers the craft necessary to become great: how to properly set up speakers, how to dial in our subwoofers, heck, how to perform great audio demos.

RELs simply—and we heard this immediately—made every system we put them into sound better. A *lot* better. And they had this uncanny ability to blend with the main speakers. This was because their founder, Richard E. Lord (hence, REL), had hit on the idea of using a high-level connection to feed the audio signal to his subwoofers.

Everyone else pretty much sticks with low-level connections (these use RCA cables), and the problem with that approach is that you take your electronics and you cut your big, fancy stack of electronics right in half. It's like listening to the world through the aural equivalent of bifocals.

We come straight off your power amp. By adding an REL, you attach a single tiny cable to your power amp speaker terminal—the exact same ones that hook up to your speakers—and your system does its thing and plays music.

Something magical happens. Your system is producing fast, deep, extended bass that acts like the foundation. All of a sudden, everything settles down, it becomes firmer and bigger, more solid and more impactful, and then the magic takes over.

The single biggest thing that most folks don't get is that deep bass is the anchor to all music. Get that right, and your midrange opens up. Highs

begin to float free of your speakers. It's truly a magical transformation.

71: How long does a new design usually churn around in your head before it becomes reality?

JH: I came from the street, meaning I earned my way up every rung of our industry. During that time, I had several incredible mentors. One of them, David Fletcher, who was the prior owner of Sumiko, was a Berkeley-trained physicist.

He taught me to think in reductionist terms, always dealing with the first-order problem first, then moving on. It sounds simple, but it requires you to correctly identify the challenge in front of you. This requires honesty and a good instinct for what could be better in one's design. That requires humility and curiosity.

Too many designers become self-satisfied. I'm as hungry for knowledge as ever, and we spend *tons* of time in the field at our dealers and international distributors. When you work with hundreds, even thousands, of systems in a 5-year window, you experience challenges, and we take those data points and feed them back into our next designs.

In that way, we treat our machines like a good F1 team treats theirs. We're always asking, *Why did X do this? How can we avoid having Y happen in a room like this?* When I sit down to create or ideate, it comes pretty fast because I've been taking “notes” for five years prior.

71: You've developed your own techniques for fine-tuning loudspeakers before even thinking about the subwoofer(s). Tell us a little more about that.

JH: Going all the way back to my last two years in retail (1984-5), I had begun teaching myself in a concentrated way about speaker setup and dial-in. After a short time, I could walk into rooms and “feel” them.

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During that time, Dave Wilson of Wilson Audio, who was a frequent visitor to our store, would stop by and we'd talk about his experiments and mine, sharing setup and dial-in techniques that worked best. Dave was a meticulous setup technician—one of the best of all time.

We evolved setup techniques that somewhat paralleled each other. What came to be known as M.A.S.T.E.R.S., which I created and eventually taught to well over 1,500 audio salespeople and owners, really evolved rapidly over a concentrated decade from 1989-99 but is its own reliable, living, breathing protocol that continues to evolve and improve.

During that time, a third partner and I traveled to many dealers—at least 300 stores—and we continued to refine the evolution of our process. I would document and note iterations that worked best, so the system was ultimately refined many thousands of times.





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M.A.S.T.E.R.S. has been called the gold standard by many people. Essentially, it is a non-dogmatic method for pinging the room beginning with establishing where the deepest bass is best achieved, then refining upward (middle bass to upper bass, upper bass to lower mid-range to mid-range and so on).

That sounds terribly difficult, but once you're taught hands-on by a *MASTER*, folks quickly catch on. Like learning an instrument, it relies on physical technique, but everyone can hear for themselves the benefits.

Folks ask, *Why don't you publish a book?* ...We've had former students who grasped about 5 percent of what *MASTERS* taught try to do that in hopes that some of the magic accrues to themselves. But it's not the same. Don't read these; it's like reading a book on having sex. It's not the same thing.

It's something that involves having advanced instructors catching every technique break and correcting it in real time. This way, the student begins to learn the precision required to get it perfect.

There are, by my count, only about six to eight out there working in the industry, and none of them would waste time trying to publish a how-to manual because the techniques we developed are the difference, and they can't be passed along like a cookbook.

71: Unlike every other company, you only make subwoofers. Why do you take that approach when everyone else does both?

JH: We're not opposed to doing speakers. I have the privilege of having been brought inside the intimate design processes of

both Sonus Faber and Vienna Acoustics. There was a lot in common to their development processes that resulted in speakers of natural beauty in both appearance and sound quality.

If we choose to enter the speaker arena at some point, it will not be under the REL name. That will be reserved for our subwoofer line only, and we will bring in additional engineering resources so our current team will not have its focus dissipated by trying to ride two horses at the same time.

71: How do you know when you are ready to finally send the product to market?

JH: Wow! Great question. From a design perspective, I know it's a complete thought when I feel sad for our older products. It's a strange sensation, but true. When you get every design detail buttoned down, there's a new clarity to our design language that wasn't present in the previous generation, and it brings me great joy.

Our brand-new Serie S that just launched is a perfect example of that: longer, lower and wider, with perfect surface detailing. Our surface details are part of our REL design language that just keeps evolving. When you see an REL, you instantly know it's an REL.

People are saying lovely things about them. Not a few have proclaimed them the most beautiful subwoofers ever designed. Hopefully that's not true—that range is somewhere in the future, I hope!

71: Why six (or 10) subwoofers instead of more or less?

JH: Ah, our Line Arrays (three or five vertically stacked RELs per side) have become an overnight sensation after 15 years in the market. Innovation can take a while to catch on.

It's critical in our extensive experience to have each sub in a stack be individually tailored (volume levels *and* crossover setting) to their

role. The bottom unit we refer to as the anchor, as it's responsible for the deepest bass, owing to it coupling directly with the floor.

The middle unit delivers crisp mid-bass attack; its placement some half a meter off the floor precludes it producing incredible deep bass. But it's critical to the get fast, open, taut mid-bass with no overhang to their impulses.

It is also the fulcrum of the system. Get the balance wrong here, and the entire stack can teeter toward thick, heavy and ponderous or to lightweight, lack of solidity and a disjointed effect.

Hence the need for either three or five per side. When one tries to use two stacked, for instance, it will have tremendous drive, but lack the clarity, precision and magic of the proper full Line Array of either three or five units per side. We reserve five for pairing with the largest, most supremely competent of speaker systems, and then, only in rooms that are significantly taller than average.

71: What's next?

JH: Increasingly, we are aware that people require different designs to accommodate the shift in building design and how we live our modern lives. In recent years, the proliferation of homes with open floor-plan living spaces has hit a turning point. These present challenges, since bass generally requires proximity to walls in order not to dissipate its impact.

We're just six months or so away from an exciting and innovative range that solves this challenge both beautifully and brilliantly, and when we get there, we'll be back in touch. We're never going to slow down or stop improving our impact on music and film systems. The biggest difference is that what we restore benefits the entire landscape of sound from top to bottom.



