



# THE SOURCE

## *Newsletter of the NJ Audio Society* *August, 2019*

*George Witterschein, Editor*  
*Alan Hyman, layout & design editor*  
*Larry Borden, copy editor*

### About the NJAS

Our meetings are held on the 3rd Sunday afternoon of every month (with what seem to be more and more numerous exceptions), and meeting sites alternate between northern and south central New Jersey locations, usually at a member's home. We encourage and welcome anyone interested in high performance playback systems (LP, CD, and all other technologies) to join and participate through active membership. Annual dues are \$60. Membership includes a subscription to *The Source*, the publication of the New Jersey Audio Society, and invitations to attend meetings. Also with membership are opportunities to communicate through the submission of material or letters for publication in the newsletter, and to participate in our website, <https://www.njaudiosociety.com/>. If you have any questions use the 'Contact us' link to reach us, or call:

Jon Moberg, President, (908 654-5243), or Jim Glynn, Treasurer (732-377-3773).  
Paul Pomerantz, Meeting Chair (908 884 8552).

**Neal Patrone, President, 2013-2017**

# Issue Contents

1. Editor's Comments
  2. August Meeting Announcement
  3. July Meeting Report
  4. Izzy in Pittsburgh
  5. THE SHAPE OF THINGS TO COME 1: Chibás – Remember That Name – Editor
  6. THE SHAPE OF THINGS TO COME 2: NJAS' Kalellis making 3D printed speakers!
  7. THE SHAPE OF THINGS TO COME 3: BATTERY-POWERED COMPONENTS – Mike Pacholick
  8. THE SHAPE OF THINGS TO COME 4: Another Bill Evans Masterpiece Reborn in Hi-Rez!
- Ads from Members

## Editor's Comments

Good news, readers! This might just be the best edition of *The Source* I've produced yet. It actually looks and feels like a real audiophile E-magazine. Here's why:

I got really excellent material from **Mike Pacholick** (who did a terrific interview with Ron Bauman of Omega Mikro fame) about the latter's new line of battery-operated audio components.

I got an email from **Mike Kalellis** telling me about his new adventures with his already-legendary Apollo loudspeakers... along with the fact that he has developed a line of 3D-printed monitors!

I finally finished a month's-long project to download, listen to, and respond to a series of symphonic recordings by the Venezuelan conductor Eduardo Chibás (you haven't heard of him? You've got to read my article below!).

Bob Witrak of [highdeftapetransfers.com](http://highdeftapetransfers.com) helped out by posting a DXD remaster of the all-time great *Conversations with Myself* album by Bill Evans. My breathless review was easy to write once I heard this masterpiece in Hi-Rez!

(I was able to group the previous four stories under a theme: "The Shape of Things to Come." Sound mysterious? Read them and you'll see what I'm talking about.)

Also: a phone call or two, some texts and some emails with **Izzy Marrone** at his new home in Pittsburgh provided material for yet another story.

Plus there is a preview of the August 18 meeting at **Paul Pomerantz's**... Featuring his justly renowned barbecue food (and this is our annual Society BBQ meeting), not to mention a fabulous guest speaker, **Harry Weisfeld** of VPI turntable fame.

There's also a report on our July 20 meeting at Art of Sound in Lambertville.

Give it a read and tell me what you think!

--George Witterschein, Editor

# August Meeting Announcement

Our August NJAS meeting (our annual summer BBQ) will take place on Sunday, August 18, at 2 PM at **Paul Pomerantz's** in Bridgewater.

Of course, Paul is our NJAS meetings chairman, which means it's his job to put the arm on us members, pressuring us into agreeing to hold meetings at our homes. Now it's his turn!

Actually this is not Paul's first meeting rodeo. Many of us will remember fondly his hospitality at last year's barbecue meeting, where we not only had Vinyl King **Michael Fremer** as guest speaker, but Paul's legendary grilled food as well.

This year promises to be just as good: the guest is **Harry Weisfeld**, the Great Man of the audiophile vinyl/turntable industry, and Paul promises to get the grill fired up again.

Some requests from Paul:

**“RSVP!**

**“RSVP!**

**“RSVP!**

**“RSVP!** I need to get a good idea of how many mouths I'll be feeding. I love grilling for sizable numbers of people, but it works out much better for all involved if I know about *how sizable* that number is going to be.

“Please don't arrive before 1:45 PM, unless you're one of the people who was volunteered to help me with preparation. Expect the NJAS business part of the meeting to start at 2 PM or so, and please be patient while the food comes out. Barbecuing is not an exact science, and I take it seriously. The food will come out when it's ready.

“And yes, feel welcome to bring your vinyl treasures for playing on my system in the presence of Mr. Weisfeld. Given our guest of honor, non-vinyl sources such as CD and SACD/files on thumb drives will be confiscated at the door (and fed to the dog).

““We will eat at 2pm+ and Harry will address us on the deck (weather permitting) directly afterwards. He will do a Q&A (be nice and ask your questions without a five-minute lead up) and will regale us with anecdotes about VPI and the world of audio pre- and post- digital. We will then proceed inside and spin records for your listening pleasure. My audio room is not large but worth the wait if you don't get in right away. I also have a new 4K OLED TV which we might fire up for some 7.1 music videos. And: Harry recently stopped by, tweaked my table and said it sounded good (phew, dodged a bullet there).”

In other words, it's shaping up as a great meeting!

After reading my own and Paul's joint blurb above, I immediately scrolled down on the webpage and RSVP'd!

You ought to do that, too. No, you **must** do that, too, even if you're not attending.

**RSVP:** in keeping with the NJAS' new policy, everyone everyone EVERYONE must RSVP via the RSVP link plainly visible on our website homepage.

**This includes those people who are NOT going to attend.**

Which is what RSVP means! Loosely translated from the French into my New Jersey dialect, it goes: "Send a reply, you dufus! Or *Je vais téléphoner à mon cousin Nunzi.*" [Accent on the 'i' in "Nunzi".]

This will give us a much more accurate count, which in turn will help the host estimate accurately as to how much food to order.

**Address, directions and parking notes:** end of newsletter

**Chairs:** some of us should bring; they might turn out to be needed.

## July Meeting Report



Saturday, July 20 might go into the books as the hottest day of 2019. It certainly reached 100°F in many places in New Jersey.

It was also the day of our July NJAS meeting.



Fortunately for us, the location was **The Art of Sound** in Lambertville. This sleek modern audio dealership is located in the cellar of a converted 1830s Lambertville mill building. The subterranean location and the still-visible stone foundation walls would most likely have kept us cool on their own, but we were also at the bottom of the building's HVAC stack. Result: it felt like paradise! If you were one of the 30-35 NJAS people there (all told, with the Philadelphia group, we were closer to 100) you know how delightful it was.

That impression was reinforced by the *experience* of the event. We were cosponsoring the meeting with the Philadelphia Area Audio Group – it was actually their event and we were piggybacking on it, but they pretended to let us act as if we were co-sponsors. I carpooled down to Lambertville with Treasurer/webmaster **Jim Glynn** and meetings chairman **Paul Pomerantz**. President John Moberg emailed us the night before saying to be sure to put our seatbelts on; you can probably figure out why.

With Jim at the helm he and I made our way south from Martinsville where we had met at Jim's house, to fetch Paul in Bridgewater. The conversation in the car was so good that despite the unique understanding of "cooling" exhibited by Jim's car air conditioning system, we arrived in good form. There to greet us in the parking lot were **Steve Wilson** and **Allen Edelstein**... so we felt right at home.

We didn't linger too long in the parking lot, under the 100° noonday sun, but hightailed it into the sublime basement of Art of Sound.

We were immediately dazzled by rooms full of audio-visual goodies. Bob Feneran's photos, for all their excellence, cannot convey the impression of so much true high-end gear, arranged and displayed with perfect taste. The visual impact was viscerally enhanced by the sound... Those guys really know how to stage an audio showroom!

We were greeted by friendly staff members and ushered in the direction of the bar, where I immediately had something cold. Wonder why.

There was a long pause – we had arrived at 12 noon promptly, as the PAAG had asked us to -- but it turned out the Philadelphia folks had decided that we would all wait until 2:30 PM for the activities (including the food) to start. There were some grumblings among us New Jerseyans about this long hiatus, but I reminded the grumblers that a) it was Philadelphia's event, and no one from their group had told us about the long wait; and b) on the hottest day of the year, how bad could it be to be "stuck" for a couple of hours in a beautiful cool environment with an open bar, rooms full of fabulous toys and lots of your friends? There are worse fates, I remarked to our President. He nodded in agreement. I ran this opinion past one of the PAAG guys who was once an NJAS member – **Mike Patrick**, he of the pocket-sized phase detector. After telling me that he still carries the thing around with him and had it there at that very moment, he mercifully declined to produce it. Mike said yes he did agree, the wait wasn't so bad.

Well, 2:30 did eventually come around. After remarks by the leadership of both audio clubs, we were treated to some truly excellent live music (you remember that) by a local jazz group that Art of Sound had brought in for the event. The Eric Mintell Quartet, billed as top-notch interpreters of the Dave Brubeck repertoire, turned out to be just that... top-notch, in *all* the repertoires they played. I can't recall how many delighted comments I heard from our people after a half-hour of that live jazz! It occurs to me as I write this that the Art of Sound people must have great confidence in their audio gear setups, to follow live music of that caliber with the electronically reproduced variety.

Their confidence was well-placed. Art of Sound is a *fabulous* high-end audio dealership, and I felt like a kid in a toy shop wandering amongst their goodies. Brands included MartinLogan; Sonus Faber; Focal; PrimaLuna; Balanced Audio Technologies; Primare; NAD; Devialet... and, if you can believe it, many many more. All signs that Art of Sound owner John Nirmaier was dead serious about giving us a great event!

They even had a headphone audio station featuring the Sennheiser 800 cans, which I regard as the best-sounding dynamic headphones I have ever had on my head. When I pointed out that the HP system needed to be connected and turned on, a young salesman leapt into the fray and set it up for me in a trice. Listening to Toni Braxton and Thelonus Monk, I could've stayed for days, especially when I remembered how hot it was going to be when I went back outside.

In addition to showcasing a vast array of audiophile hardware for us, owner Nirmaier arranged to have a stellar array of industry representatives on hand: Ron Meyerowitz of Paradigm; Mark Boecker from Martin Logan; Aldo Filippelli of Audio Research; and Evan Grimm representing Sonus Faber and Pro-ject.

Nirmaier's own staff were also super. Worth mentioning are social media/sales specialist Gavin Krieger; tech specialist Daniel Mullin (I believe it was he who wired up the Sennheiser 800's for me; -- thanks, bro!); the all-important bartender, tech specialist Christian Dix; glamorous administrator Ryah ("Ry") Dekis; and the boss man himself, acting as host and chief engineer.

Still, we had to face reality eventually, and Jim Glynn and I headed north (Paul Pomerantz was headed elsewhere). En route to Martinsville on Route 202 we discovered an organic family farm selling its own organic ice cream... Profeta Farms, 803 US-202, Neshanic Station NJ. We had to drive right past it... And I for one do not look gift horses in the dentition.

Did we stop for some? On a 100° day? I refuse to answer such a dumb question. I had three different flavor scoops, and I remember almost every spoonful. Jim was also pleased.

What a great day!









# Izzy Out West in Pittsburgh

**Izzy Marrone**'s recent decision to move farther west from his home in the Allentown, Pa. area – where he was fairly close to another NJAS stalwart, **Arnis Balgalvis** -- to be near his daughter in Pittsburgh had me wondering: how would this very urbane, jazz loving audiophile fare out there where the deer and the antelope play. (Please forgive me for my Hudson County provincialism; I grew up believing that everything west of the Hackensack River was cowboys and Indians. It is, isn't it?).

To answer my question, I contacted Izzy directly. We communicated by text, email, and eventually even a phone call.

It turns out that Izzy really likes Pittsburgh. My wife Wendy, who did a stint there when she was an AT&T sales manager, loved it for its unique combination of peaceful, folksy, semi-small-town civility and big-city amenities. That's pretty much Izzy's take on the city.

It seems Izzy has cleared two big hurdles for someone who's moved to a new town: he's found a good church, and he's got his audio rig – his main rig that is – set up and working. For a while, he was limited to headphone listening, but that's over.

He also located a venue for free jazz concerts, and is working on permission to record them. In his trademark outstanding 24/192. That's our Izzy!

If you want to phone him, his cell phone number (see our Web site) is now his only phone, and remains unchanged. And his email is still the same; hint, hint.



*Photo Supplied By Izzy*



# THE SHAPE OF THINGS TO COME 1: Chibás! – Remember That Name

--editor

I met Eduardo Chibás the right way... by accident. Happy accident, I'd say.

It went like this: I was playing around on Bob Witrak's [www.highdeftapetransfers.com](http://www.highdeftapetransfers.com), ogling the "Labels" submenu, when I chanced on something that caught my eye: a record label named [furtwanglersound.com](http://furtwanglersound.com). Needless to say, I never heard of such an outfit; but I *had* heard, and long revered, the name Furtwängler, or as we Krauts spell it, Furtwängler.

As in Wilhelm Furtwängler (1886-1954), the conductor regarded by some as very possibly the greatest since Gustav Mahler himself, or greater. Don't believe me? See the Wikipedia article [https://en.wikipedia.org/wiki/Wilhelm\\_Furtw%C3%A4ngler](https://en.wikipedia.org/wiki/Wilhelm_Furtw%C3%A4ngler), which virtually agrees with me: "widely regarded as one of the greatest symphonic and operatic conductors of the 20<sup>th</sup> century." The Wikipedia people need to be cautious in their use of language, and I don't. I'll stick with "could be the greatest conductor of all time." Hey, it's my newsletter!

So I took a look at this label's website. There I found yet another curiosity I'd never heard of:



## LIVE RECORDINGS OF EDUARDO CHIBÁS

**The recordings were made at 24 bit resolution. If you purchase any of these CD's, you will be able to download them at both 16 bit and 24 bit resolutions. The 16 bit files are for burning CD's. The 24 bit files have better sound for reproducing on a computer or iPod.**

Eduardo Chibás? 24-bit resolution? Mysterious! I was hooked.

Through the Furtwängler site, I downloaded several recordings made by Maestro Chibás and the Venezuela Symphony Orchestra. Beethoven, Bruckner, Schubert, Wagner. Since I had a question about which resolutions I would get and by what method, I submitted an email through the site. Almost immediately I heard back from Eduardo Chibás himself. As some of you know from experience, once you start emailing with me about music, the conversation will not likely be short.

Turns out that Maestro Chibás is a native of Cuba and a member of a distinguished family of Cuban political reformers who in the 1940's tried in vain to rescue that unfortunate island's political system from the severe morass into which it had descended. His namesake and uncle, if my researches online are correct, was planning to run for high political office when he died, committing suicide in the broadcast room of Cuban national radio after a critical betrayal by one of his reformist political colleagues. Problem is, he looked like he could win in 1952! (Against Fulgencio Batista, the rabid dictator eventually ousted by Fidel Castro's revolutionary forces.)

“When I was 10 or 11, I read a simplified but fairly complete version of the *Iliad*, and this got me into my first passion. When my father found out I had liked it, he gave me a small history of ancient Greece and laconically said ‘read this’. That got me off.

“Eventually, my father had a falling out with Castro (after initially aligning himself with the revolutionary leader while Fidel was still paying lip service to democracy) and had to flee in a 17-foot boat to Key West. My parents were divorced at the time, but, of course, we followed three weeks later.”

The conductor-to-be and his people wound up living in New York City, which explains among other things the Maestro’s excellent English.

From his grounding in the ancient literary classics, young Eduardo developed passionate political and cultural principles -- democratic, yet pitched to the highest values of courage and honesty. Speaking of Bruckner’s 7th Symphony, he summed up his ideals in an email not long ago: “I see Bruckner as reaching for something that is out of reach. That is an essential quality if you are to become a better human being, which is what I think truly great art is all about.”

He’s written some fine essays, readable at <http://eduardochibas.com/essays/>, about his favorite classical music works and what they mean in humanistic terms. I recommend these documents.

After eventually taking Columbia University degrees in Applied Mathematics and Operations Research, Chibás found himself back in Venezuela, where he founded a highly successful branch of the London-based Saatchi & Saatchi (the largest advertising firm in the world).

Turning his hand to orchestral conducting, which he learned on his own, observing conductors in live concerts and studying recordings. He also had a chance to sit in on some rehearsals by the famous Argentina-born Maestro Daniel Barenboim, also a noted devotee of Wilhelm Furtwängler. Barenboim was a major influence, though Chibás never studied with him, and he did manage to take a brief course in conducting with a local Venezuelan conductor. He also conspicuously credits some of the musicians in the Venezuela Symphony with helping him to acquire the art of conducting.

In time he found himself occasionally wielding the baton in front of the Venezuela Symphony Orchestra. Specializing in German repertoire, he led hugely successful concerts showcasing Beethoven symphonies and piano concertos. According to his online biography, <http://eduardochibas.com/biography/> “...In 2008, the Venezuelan newspaper *El Universal* put on sale a collection of 10 records of Eduardo Chibás and the Venezuela Symphony Orchestra with sales of almost 200,000 CD’s.”

His conducting career included the first-ever Venezuelan performances of Bruckner’s Symphonies 8, and 9. [My capsule review those recordings is below.—Ed.]

Chibás now lives in Caracas where he spends his time “mainly in intellectual pursuits, music being foremost. I host meetings of the Venezuelan Wagner Society every two weeks, and often

---

<sup>1</sup> Barenboim, simultaneously a citizen of Argentina, Israel, Palestine(!), and Spain is currently the musical director of the Berlin Staatskapelle, which your editor thinks is the best sounding Symphony Orchestra in the world today.

<sup>2</sup> his recordings of the Beethoven piano concertos, with the sublime Brazilian soloist Luiz de Moura Castro, and downloadable from [furtwanglersound.com](http://furtwanglersound.com), are a triumph of elegance and classical perfection. The sound is in respectable 24-44 FLAC. I recommend these (and listen for the timpani too)!

prepare presentations for these meetings. I also continue my interest in history. I have a personal view of the history of the different Western Civilizations. I have a presentation that has become “popular” and do it with some frequency. I am constantly improving it and hope to get around to turning it into a book. I do subscribe to that ideal associated with the renaissance and enlightenment which values a wide-ranging knowledge with the internal relationships that produces. All is interconnected. It may be that this is what allows me to “hear” things in the music that others don’t. I think culture is very important in a conductor. It is a pity that it doesn’t seem to be important any more. Furtwängler is a great example of what culture can produce alongside talent. Toscanini, on the other hand, is an example a tremendous character and talent without culture, with the consequent superficiality.”

“I still work on advertising once in a while and am a member of a couple of Boards of Directors. I am married and have three sons and two grandsons. My oldest, from a previous marriage is living in Barcelona, Spain, and has an audio-visual production company which is relatively new. My other two sons are studying in Europe. The older one is studying Medicine in Rome. He still has a couple of years before he starts his internship since he first got a Bachelor of Science in Biochemistry and Cell Biology in Germany. The youngest is finishing his Master’s degree in Artificial Intelligence at St. Andrews University in Scotland. I am very proud of my sons. They are good, responsible persons.”

So that’s the background. I set out to listen to the recordings I was downloading, and got flabbergasted. In fact I included this essay as part of my “The Shape of Things to Come” series because I think it’s inevitable that this conductor will in time become well-known, and maybe even a household name. “Chibás” is certainly easier to remember and pronounce than “Furtwängler,” which means we’re off to a flying start.

As you might suspect, the Cuban-Venezuelan conductor takes his stylistic “cue” (groan) from the German master. Like WF, Chibás brings great rigor and high ideals to his interpretations. He’s also prone to Furtwängler-style spontaneous outbursts: dramatic pauses, unexpected changes of tempo, and under-promised/over-delivered explosive climaxes. Again like Furtwängler, he responds to the Spirit of the Moment, acts on it, and demands his orchestral players follow him, on the spur of the moment, into territory they have not rehearsed.

Your orchestral musicians have got to love you to put up with this kind of stuff, I think. You’re sitting in a chair trying to deal with an already-demanding score from Schubert or Bruckner, and the guy with the baton turns on a dime and decides to take you in a direction, and at a speed and dynamic level, you never anticipated. Sounds like life itself, doesn’t it?

In Venezuela, this meant that the orchestra (primarily the Venezuela Symphony, but also the Carabobo Symphony, named for the large city near the capital where it is in residence) had to go through a profound and sometimes painful process of growth.

Part of the conductor’s function is to shepherd the orchestral forces forward in their proficiency as musicians. Furtwängler did it with the Berlin Philharmonic, Vienna Philharmonic, and numerous opera houses. (The latter occurred in the face of intense political pressure from Hitler himself, who wanted WF to agree to cooperate with the Nazi party for propaganda purposes. Hitler would’ve been able to say to the world, “See? The greatest conductor who ever lived is one of *us*.” When Furtwängler, in conversation with Hitler, flatly refused, Hitler reminded the conductor that there was a room in a concentration camp waiting for him. To which the conductor memorably replied, “At least, Herr Reichskanzler, I shall be an excellent company there.” Hitler became so apoplectic that he ran out of the room without responding.

Source: Wikipedia [https://en.wikipedia.org/wiki/Wilhelm\\_Furtw%C3%A4ngler#The\\_New\\_York\\_Philharmonic\\_Orchestra](https://en.wikipedia.org/wiki/Wilhelm_Furtw%C3%A4ngler#The_New_York_Philharmonic_Orchestra)

What strikes me most in Chibás's interpretations is original understanding and performance -- of a kind that really stands out in our era of perfect-but-cookie-cutter orchestral offerings. I found myself on the edge of my seat listening to his recordings, despite the fact that I cannot say they are sonically acceptable to an American audiophile. (Even the 24-44 and 24-96 versions don't sound all that great, as Maestro Eduardo himself will readily admit.) But I was so captivated that I just kept listening anyway!

His Bruckner 8 and 9, works I have been listening to for over half a century (OMG is that true? I think it IS) are revelations. Chibás conducted the Venezuelan premieres of Bruckner's 8 and 9, educating the audiences and helping his orchestra improve along the way. In the 8<sup>th</sup> and the 9<sup>th</sup>, it was like listening to newly discovered works by the 19<sup>th</sup> century Austrian master. Chibás regularly finds things in the score I never heard; especially at the end of Bruckner's Ninth, where he pulls a hidden, ascending "background" French horn line out of the brass choir and brings it forward, changing the whole trajectory of the symphony with that one insight. "Why we don't hear this more often at that point in the symphony, I just can't explain," Chibás tells me.

Lest you think it's all sweetness and light, his approach also includes a fair amount of what I can only call *barbarism*. Calculated barbarism! In the Bruckner 9, the slow movement as Chibás interprets it gets totally transformed by a semi-lunatic explosion in the tympani. Music that is supposed to be serene and gently spiritual (or so we've always thought) suddenly turns pugilistic and in-your-face. "I had a really good tympani player in the orchestra," the maestro informed me in an email, "and even though he has retired, his replacement is excellent, and in the same mold." I'm happy to hear it! Somehow in my stereotype-bound mind I think it's appropriate that a Latin American orchestra should have an outstanding percussion section.

In Beethoven symphonies... especially the Fifth and Seventh... Chibás is always doing things you don't hear anywhere else. Again, he uses the tympani to create unease and a very modern sense of "things ain't what they used to be," or "this is not your father's Beethoven." The result is a refreshing and new experience of works that have too often grown stale from over-performance and under-inspiration.

His interpretation of the Schubert 9<sup>th</sup> ("The Great") is so full of freshness and new insight that it has absolutely gone to the top of my list, despite the less-than-perfect sound. It has even taken over first place from my long-time favorite, by Stanislaw Skrowaczewski and the Minneapolis Symphony, a musical and sonic spectacular recorded by the Eberenz-Fine-Cozart Mercury team and remastered by Bob Witrak of HDTT into unimpeachable DXD sound. Again, with the Chibás, it's like hearing an entirely new work masquerading under the title of a well-known older one.

Do I recommend you purchase these Chibás downloads from the Furtwänglersound.com website? Yes, but with reservations. If you're the kind of music lover who can live with a great interpretation in less-than-great sound, by all means yes. Otherwise, contact me and we'll set up a time for you to come over my place and listen. Be prepared to see me get really excited and bounce around in my chair a lot and make exclamations and groans of ecstasy.

Which is what classical music is supposed to do for us, yes?





*EDUARDO CHIBÁS  
at HOME*

# THE SHAPE OF THINGS TO COME 2: NJAS' Kalellis making 3D printed speakers



When the very popular and much esteemed **Mike Kalellis** left New Jersey for North Carolina a couple of years ago, I for one was chagrined. Mike was a stellar member of our Society, hosting meets and mini meets galore, and bringing in members (the late and much missed **Neal Patrone** comes to mind) in the development of his Analysis Audio and Arion product lines.

The loss was softened some as Mike stayed in touch with us, remaining a member in good standing, and keeping the newsletter informed of news in his shop. For this month's issue of *The Source*, he has a blockbuster item: he's developed 3D-printed monitor loudspeakers! Talk about "The Shape of Things to Come!"

Here's Mike on his much-praised and highly reviewed flagship Apollo speakers, which he's been reintroducing at the same time as developing the 3D monitors:

"I recently exhibited at The Home Entertainment Show in SoCal. We were well received there, I think." Actually he's being too modest. If you read any of these reviews, you'll see that he has been much better than "well received." More like "praised to the skies."

<https://parttimeaudiophile.com/2019/06/28/the-return-of-the-arion-audio-apollo-system-t-h-e-show-2019/>

<https://www.stereophile.com/content/arion-apollo-loudspeakers-ls-200-linestage-2a3-tube-amplifiers-and-hs-500-hybrid-mono>

<https://www.stereophile.com/content/arion-apollo-loudspeakers-ls-200-linestage-2a3-tube-amplifiers-and-hs-500-hybrid-mono>



<https://positive-feedback.com/show-reports/t-h-e-show-long-beach-photo-essay-part-4/>

<https://www.psaudio.com/article/the-show-2019-part-2/>

<https://wolfaudiosystems.com/t-h-e-show-newport-beach-ca-2019/>

And on the 3D monitors, Mike wrote me as follows in a July 20 email:

“Attached are a few photos [reproduced here in *The Source* –Ed.] of the first pre-production pair of 3D speakers. This set is very close to production specs and should go on line with full DSP tomorrow. If everything works out as planned they should go into production by the fourth quarter.” Mike also told *The Source* that so far he’s pleased with the *sound* of these monitors.

And, they’re 3D-printed! You can bet this is a story that will go on into future issues. Stay tuned!

### **[Alan Hyman adds:] Breaking News - Arion Audio Apollo System now on Display at the VPI Showroom!**

“Recently I helped Mike Kalellis and Harry Weisfeld<sup>3</sup> install Mike’s Apollo System at VPI’s showroom in Matawan/Old Bridge here in New Jersey,” Alan tells *The Source*.

“This a **High Sensitivity, Line Source, Open Baffle** with **Active Woofers** speaker system. The system comes with a **DSP** unit with a **microphone**. You will need to bi-amp.

“Not sure if bass amps will be included. The version we set up has nine AMT tweeters and two 10” woofers per side. The AMT tweeters are custom made for the Apollo.

Once dialed in the system displayed a very live, dynamic sound, realistic imaging and tons of detail. In the photo, you will notice on the TV a “commercial for the Apollo.” It came on just as we were getting done! :- ) [Actually, Alan photoshopped the “commercial” into the TV in the photo as a joke – Ed].



---

<sup>3</sup> who, coincidentally, will be the guest speaker on August 18 at our NJAS barbecue meeting at Paul Pomerantz’s.

“At some point in the near future there will be a listening session at VPI in Matawan. Details to follow!” Alan concludes.

FYI the 3D printed Apollo Monitor which Mike brought over to my place to photograph, has one AMT tweeter, four 6/12” bass drivers and will have a DSP unit as well. A pair may be set up at my place soon for people to come over and listen.



*Mike K. Posing with the Apollo in a Matching Outfit!*

## THE SHAPE OF THINGS TO COME 3: BATTERY-POWERED COMPONENTS

**--Mike Pacholick**

**Mike Pacholick** must have been reading my mind. There I was, cooking up an issue based on the theme of “The Shape of Things to Come,” and Mike sends me something beyond my dreams: an interview with the renowned Ron Bauman of Omega Mikro and Mapleshade Audio (he’s a constant collaborator with Pierre Sprey) about a line of audio components Bauman is developing. Battery-powered components! Last month’s issue of *The Source* featured a teaser story from Mike about InSound’s battery-powered DIRAC DAC/streamer. We apologize for any repetition from that story to this, the follow-up we promised last time.

Take it away, my Chicago brother Mike:

*Could battery powered hi fi gear be the wave of the future?* Ron Bauman at InSound Audio and Omega Mikro gives us an insight in this interview, as to why batteries make sense in today’s audio world.

Background: InSound Audio, also known as Omega Mikro, makes interconnects, power cables, power distributors, speaker cables and electronics, often in close collaboration with Pierre Sprey at MapleShade Audio. See: [www.omegamikro.com](http://www.omegamikro.com)



Their approach gives nothing short of heresy-inspired culture shock to most audiophiles. Gone are the beautiful gold-plated this or silver-plated that. Or the polished metals, or the neat looking LED's. These products are engineered with one goal in mind. To simply take an audio signal from source to speaker with no colorization or interference. They don't look hi tech, they don't impress the eye, the company doesn't advertise or use fancy labeling, creates no consultant-driven marketing budgets, gives out no free products for interviewers. For 30 years, this company has been an underground railroad in the hi fi industry. They have a loyalty and following among their customer base which is second to none, especially when it comes to cabling.

Recently I had the chance to visit Ron Bauman, InSound's founder, in his West Virginia studio to listen to a new battery powered DAC and Streamer and learn more about his approach to engineering hi end audio solutions.

According to Ron, "All OMEGA MIKRO products are developed and evolve based on 1-variable-at-a-time listening comparisons. We may start with an idea for a new product, or to improve an existing product, based on our experience and/or on our understanding of classical physics (we don't understand quantum physics or quantum electrodynamics (but then nobody else does either according to R. Feynman)), or just a hunch, or from a customer's suggestion, but listening is the only way we know whether or not the resulting music sounds 'better' or 'worse'."

**Pacholick:** What do we mean by "better" or "worse"?

**Bauman:** "To answer that I have to first tell you what and how we listen."



(The Omega Mikro Active LCX Digital Cable) photo by Michael Pacholick

“Audiophiles seem to belong to one of three equally valid schools:

“Members of the first school assemble a system based on creating sound they like, not necessarily referenced to live music. In a sense, they sculpt sound using a selection of components that give them what they want to hear. *Stereophile* is not only the main proponent of this school, but it further claims that the goals of the next two schools are unattainable.

“Members of the second school want to make music in their home sound like their memory of a live performance in row M center at Carnegie Hall. *The Absolute Sound* [also our own **Steve Perlmutter** –Ed] is the main champion of this school.

“Members of the third school want all the information (including most essentially the details of the differential microscopic timing cues) picked up by the mics at the recording session. This is the information created by the recording team with the technology they select, deploy and choreograph for the session. The resulting sound is significantly different from what you would have experienced in the audience.

“None of these schools is right or wrong, better or worse, but which school you’re from will define what you mean by ‘better’ or ‘worse’.

“INSOUND AUDIO INC (IAI) is a member and proponent of the third school. So when we say something sounds better we mean it sounds very much like the live mic feeds from the recording session, given that where mics are usually placed, we can’t sit. Live recording sessions (including Mapleshade recording studios, the National Academy of Sciences Auditorium in D.C. and the Trinity United Methodist Church in Savannah, Ga.) provide a solid foundation for what the sound in the recording venue was, vs. what the mics picked up. Listening to the electronic capture of the event through components designed for the third school we experience a close emotional connection to the live sound we heard at the recording event. In fact, the principal missing piece, we find, is usually the visual component, and not the sound.”



DIRAC in Prototype

[Pacholick aside: *For decades Ron has engineered battery powered components. I had the chance to listen to his new DIRAC DAC and Streamer, both off-the-grid battery-powered components.*]

**Pacholick:** “Why in this day in age of sophisticated power conditioners, power cords, etc., do you feel it’s necessary to design audio components that run off the grid?”

**Bauman:** “When we at IAI started designing audio components, we noticed significant changes in overall sound quality as the evenings grew into the early dawn hours. We attributed this to the multiplicative and additive components induced into the power grid by industrial and domestic electrical and electronic devices of all kinds - that are more active during the day and evening and less active near dawn and on weekends. Without any doubt the sound was always more detailed, cleaner, more like live – “better” if you will - as dawn approached. (By the way, as we adopt more green power the mains sound quality problem will become worse and it will be 24/7/365: no more dawn reprieves). That’s because inverters are inherent in green- power generation. That also includes green lighting – LED’s and CFL’s create horrible-sounding EMI - it affects not just your house but your neighbors’ too (and of course theirs’ affects ‘yours’).

“So how do we enjoy the ‘dawn sound’ whenever we listen? Maybe a high power amp driven by a 60 Hz sine wave oscillator (e.g., PS Audio Power Plant)? Filtered line conditioners? Batteries through an inverter? Maybe battery power the components? To answer those questions we began a series of critical experiments to determine how to get that dawn sound any time we listened.

“We were hopeful that the amplified oscillator would be the answer: it wasn’t. In fact we found the sound lacked dynamics and other essential musical cues even at dawn. Yet, there were some aspects of the sound that the powered oscillator made a little better during the less desirable listening hours of the day. But at dawn, the powered oscillator was a total bust compared with straight-into-the-wall (SITW), and the oscillator’s truncated dynamics were always a critical flaw.

“We then went on to listen to every power conditioner we could beg, steal or borrow: they all made the sound worse in the same basic way: dynamics and timing cues were slowed and distorted: none were as good-sounding as SITW at any time of the day or week.

“Next we tried batteries powering inverters that produce high power 60 Hz 120 VAC. That idea turned out to be fruitless: we found no inverter that even came close to making the sound better. In fact, inverters were much worse sounding than (SITW) at its worst.

“At about this same time, we began developing a series of power products designed for SITW operation including power cords, power strips, OVER/UNDER Voltage Protection MODULES and the Line Tamer Module. These products are radically different from their competitive counterparts in that they are designed to act in concert with one another in the context of a total interactive system. What do we mean by that?

“Have you ever wondered why a 5 foot power cord can dramatically affect your sound quality even though it is the last 5 feet at the end of miles of horrifically bad-sounding cables that supply power to your home? After years of experimenting here is what we learned:

“Every component that operates SITW “talks” to all the other components that are also SITW. This interactive system includes not only your hi-fi components, but also your a/c, computer, TV, refrig, furnace, fluorescent lights and on and on. By “talk” we mean each of the above *modulates* -multiplicatively and additively- *the local power* by the nature of their internal ac to dc converters

and their internal processes. As such, all these components use your house wiring as their local area network! And what they say to each other on that network hurts the sound...in some ways differently from and in some ways similarly to the ways the mains interfere with our ability to hear the information our systems would otherwise convey to us.

“Jitter induced by the multiplicative and additive distortions in SITW mains currents is a major cause of information “loss” in a music reproduction system. This “loss” obscures our ability to hear fine details in the music: perhaps “loss” is not the right term, rather the details become fused together by the jitter. Once confused our ears simply cannot unwind those details: we hear harshness, and we call it ,”digit-titus.” (Jitter affects analog sources as well but that’s a whole other discussion).

“Of course SITW is only one of many sources of jitter. But what is especially insidious about the SITW local area network is that it carries with it the products of all your other components doing their jobs of processing the music that have been communicated through your local house wiring and your power cords to one another. We call this correlated jitter in that it tends to correlate with the music and is not just random white noise.

“OMEGA MIKRO power products deal with this inter-component communication problem very effectively but we can’t eliminate all of it. So, even though we can make a SITW system sound better with our systematic design approach, can we make the sound better yet by using battery-powered equipment? And, can a battery system provide enough energy to power a long listening session? Also, we’ve heard battery-powered systems that sound worse than their SITW counterpart so we know batteries are not an automatic win.

**Pacholick:** “What are the problems associated with batteries that you have been able to overcome through engineering? What type of research and testing has been done and what have been your conclusions as the correct approach?”

**Bauman:** “We built a CD player called the Galileo that uses batteries for powering the transport, controller and DAC. The Galileo became our test bed for exploring and solving the challenges of batteries. We started by building two versions of the Galileo: one with SITW power the other battery powered. When we began it was not clear that batteries were naturally better in all respects: they were better during the day but not all were better at dawn.

“Slowly, we learned what was causing the difference in sound between the various battery chemistries and the other not-so-obvious battery factors that also affect the sound. After a couple of years of experiments we had a solution – or a family of solutions – that sounded much better than SITW 24/7/365. We considered that a major breakthrough. The next step was to see how the battery powered Galileo compared with the best digital front ends at the time. Customers who owned highly regarded CD players, transports and DACS, were very generous in lending us their equipment for the comparisons.

“But, before we share the results, you should know that throughout our digital development we had assumed - based on what we had heard from the best industry had to offer - digital would never be competitive with the best of analog sourced systems. (We have since overcome that prejudice.) But when we listened to all the great digital front ends, the sound we heard simply confirmed our assumption. The sound from all the SITW digital sources had a common defect: they annoyed us with digititus or they bored us with their lack of musical micro-dynamics by slowing attacks and truncating decays.



“Comparing the sound of the Galileo to the most expensive loaners we had available, one owner/customer summed up the findings very succinctly: “... this isn’t even a contest”. The Galileo was far more musical and way easier on the ears: it had much less digititus. Over the next few years we found other ways to reduce jitter using batteries (especially correlated) so that we could now listen to digital and enjoy the music as much as we did analog. Without batteries, we could not have closed that gap.”

**Pacholick:** “Your new DIRAC DAC/streamer prototype is completely off of the grid. What can one experience compared to other high end products? What have others said during your listening sessions about the performance of your DIRAC?”

**Bauman:** “We took the battery-powered Galileo as far as we could and also our battery-powered analog front end. Using vinyl and CDs from the same recording sessions, in a back and forth comparison, through the same passive preamp (but otherwise identical other components), the Galileo and analog playback sounded much the same. It was difficult to determine which was which (except for the occasional vinyl click or pop). We were very happy that we were able to bring digital sound to the same level of listening pleasure as analog. Then we began to experiment with file readers (=no moving parts: a great advantage since any mechanical moving part induces jitter [techniques for re-clocking the information or reducing clock jitter *help* but don’t *overcome* jitter]. To diverge a bit, when you consider how many things move and touch each other in an analog front end, and then consider that a CD platter is constantly changing speed, and that its laser focusing mechanism is constantly trying to focus itself in the pits – both controlled by phase-locked loops (PLL’s) - it’s amazing that they can sound as good as they do.)

“On first listen to a file reader we heard a certain quality that we recognized as more musical than any other source we had yet heard. The overall sound of that first system lacked dynamics and was missing a lot of information compared to the Galileo playback of the same CD from which the file was ripped but that certain magical quality that shone through the garbage captivated us. That experience started a 5-year journey of research and development, which produced the MAXWELL DIGITAL JUKEBOX including the Shannon, the FARADAY and the DIRAC. (the DIRAC is a joint venture between Preferred Services, LLC and INSOUND AUDIO INC (IAI)).

“Almost everyone who’s heard the MDJB in any of its forms has said it’s the closest they’ve heard to the feeling of a live musical performance. A well-known professional recording engineer, hearing a file he had recently created of a live performance, played on the Shannon, said it’s the first time he’s ever heard his music reproduced the way he wanted it to be heard (he’s in the third school). Eight people recently attended an extended listening session of the pre-production model of the DIRAC. The unanimous opinion was that it is in a league of its own regarding its fidelity to the live mic capture. (Marcy likes the MDJB family of file players and has become a true audiophile as a result).

“The fact that it is off the grid is a large part of the MDJB’s purity and faithfulness to the source information. Let us digress again so that we can define what we mean by “information. What we hear at home is the receiver portion of a communication system. The transmitter portion is the information that was captured by the recording team before it was encapsulated into a digital file, a CD, a vinyl record or on tape. Once that information is impressed it is now in the propagation channel. Your home hi fi is the receiver. Just as in any communication system, the receiver has to decide what is desired information, what is noise, and try to catch and correct errors. It’s the toughest part of the communication job because there are so many ways that important aspects of that information can be lost. And our hearing mechanism, being the exquisitely sensitive instrument it is – especially in the time domain – is not easily tricked.

In designing the DIRAC we used many of the techniques for avoiding or reducing jitter that we have learned over the years, battery powering being one of the more important ones. One may surprise you because it is so common in most all hi fi components: jitter induced by high pass filters (a high pass filter reduces the magnitude of low frequencies and passes only high frequencies), e.g., SPDIF transformers, decoupling caps, inter-stage transformers, and output transformers to name the most common. (Rémy Fourré wrote a paper about this for digital jitter but the same concepts affect analog too.) Very briefly, a high pass filter induces a constantly- changing time delay for the span of signals up to 10 times lower and 10 times higher than the cutoff frequency.

“To illustrate how this affects sound consider a plucked note from a bass violin: the fundamental will arrive at your ear slightly out of time with its harmonics because each of the individual harmonics and noise components produced by the pluck experiences a different delay. As the musician modulates the strings the constantly changing (but quite small) delay differences slightly muddy the sound.

“The muddiness gets worse through a chain of components, each with a high pass filter: the differential delays multiply and the effects become more audible. In the DIRAC the user can select DC coupling from input to output i.e., the DIRAC DC mode is free of this type of high-pass induced jitter.

“The other contributors to the DIRAC’s pure sound are its simplicity: no over-sampling, no opamps or any active output devices, no output filters: just a metal film resistor dc-coupled to the output jacks.”

**Pacholick:** “Your preferred digital connection is I2S. Yet the rest of the world thinks USB, AES/BU and SPDIF are the way to go. Why I2S?”

**Bauman:** “SPDIF, USB, AES/BU formats bury the clocks within their data streams. The receiver tries to estimate the original clocks by using phase-locked-loops (PLL’s). But, even with re-clocking tricks and better reference oscillators, PLL’s always introduce jitter: it’s inherent in the way they work. In the DIRAC, we eliminated as many sources of SPDIF jitter as we could – re-clocking, dc coupling, low jitter clocks, mounting techniques, battery power just to name a few: and we’re pretty happy with the improvements we’ve made in SPDIF sound.

“For sure, SPDIF/USB/AES/BU are simpler for the user because they only require one interconnect: I2S can require 4 or more. Or I2S could be collected into a single multi-conductor bundle - as in an HDMI - but that would lose some of the advantages of I2S. I2S sends the 2 or 3 clock signals and the data each on their own dedicated wire. Therefore no PLL’s are needed for clock recovery and a major source of jitter is thereby eliminated: Two seconds of listening to the same file is all you’ll need to hear the improvement of I2S over SPDIF (and the others). So the DIRAC has an I2S input as well as several SPDIF inputs. The streamer portion of the DIRAC is I2S coupled to the DIRAC DAC. Therefore, any files retrieved from the internet or from your local file storage, can talk to the DIRAC DAC via I2S. Four individual ultra- low dispersion ribbons will connect the DIRAC’s streamer to its DAC.”

**Pacholick:** “What can we expect to see in the future with regards to INSOUND AUDIO INC’s efforts to develop products that are battery powered?”

**Bauman:** “Over the 30+ years we’ve been in business IAI has developed several battery-powered products including: microphone mixers, RIAA MC/MM/MI preamp, the GALILEO series of CD players, the MAXWELL DIGITAL JUKEBOX Faraday and Shannon versions, and soon- to-be released DIRAC Streamer, and a 5 Watt/channel stereo amplifier.

IIAI is currently working on a 15+ watt per channel battery powered V-AMP. We first developed the V-AMP more than 30 years ago: in anticipation of battery powering in the future we designed the rail voltages compatible with battery power. We actually built a battery powered V-AMP soon after we introduced the SITW version more than 30 years ago: it was very promising in that it had that crystal-clear purity you simply can't hear with SITW. However, the SITW V-AMP satisfied our customers' listening needs so we shelved the project until recently.

"The advent of green power (the external threat) has significantly degraded SITW listening, as has the proliferation of switched-power wall warts and all of the built-in computers in our digital listening (the internal threat). Moreover, the technology to deal with SITW is slipping further behind and/or is becoming far too costly. That has motivated us to rejuvenate the battery-powered V-AMP project: we're in the final stages of design and plan to debut it in breadboard form in a few months.

"And, for audiophiles who have very efficient speakers, we are developing a battery-powered switching amp (5 watts/channel) that, in prototype form, has astonished all who have heard it."

[Another story you can expect to read more about in future issues! –Ed]



INSOUND AUDIO SAVANNAH LISTENING ROOM



RON B DISCOURSING w CUSTOMER W VA



RON B WATCHES AS PIERRE SPREY CHATS w. Marcia [Mrs.]  
Bauman W VA



# THE SHAPE OF THINGS TO COME 4: Another Bill Evans Masterpiece Reborn in Hi-Rez!

--editor

Attentive readers of *The Source* will have long ago figured out that I am a major Bill Evans nut.

Back in the nineteen sixties – my college days (in the fourteenth Century, it feels like) Bill Evans was alive and playing -- and I was listening to him avidly. His music conveyed a certain private melancholy that greatly appealed to me. Like many a college lad, I was always having my heart broken by some blue-eyed goddess or other celestial female. The deep abiding sadness in Evans' music struck that heartsick chord inside me, and still does fifty years later.

I recall being flabbergasted when his *Conversations with Myself* LP hit the market like a bombshell. The Plainfield, NJ-born pianist, always the experimenting type, used tape technology to play not one but three tracks on the album, creating compositions for three pianos in the process.

The sheer elegance of the notion gobsmeared me. The “trio of me myself and I” format also allowed Evans to plumb even deeper in the depths of his Saturnine (= Latin for “depressive”) personality type. Since this was also *my* personality type at the time, I spent a lot of time listening to this album -- often with the aid of a bottle of Beaujolais.

As the years went by and I became, thank God, considerably less prone to mope in my beer (is that possible? Or is it just a mixed metaphor?) I let *Conversations with Myself* recede toward the back of my awareness. When I saw a reference to it, I would think “what a brilliant album,” and get on with my life.

Well, George, here it is again! In his endless musical wisdom (meaning his taste in music agrees with mine), Bob Witrak has remastered and issued the album in superb DXD sound.

Here's my review of it: If I get to heaven, I'm going to ask right off the bat, “Do you have Bill Evans' *Conversations with Myself* here?” If they answer, “There's the man himself over there by those three pianos. Up here, he can play all three at the same time.” I'll know I'm in the right place. ~smile~

How is this “review” part of the The Shape of Things to Come Series in This Newsletter? Simple: when you order a hi-rez download from Bob Witrak's [highdeftapetransfers.com](http://highdeftapetransfers.com) site in the maximum resolution – here, DXD – you earn yourself the permanent right to download the same recording in all the other, lesser resolutions as well.

What's the upside to being able to get the lesser resolutions? Flexibility! In my case, not every music system I have can play DXD. My portable players, for example, won't even touch it. And anyhow, the files are much too big to be carrying around inside a portable player. I'd need a shoulder strap.

I'm going to step right up and take credit for recommending this idea to Bob Witrak. I first encountered it on [nativesd.com](http://nativesd.com), and told Bob Witrak about it in an email. Turns out he had already learned of it from Jonas Sacks at nativeDSD. Anyhow, within a week of this email exchange, Bob had fixed things on his website to accommodate the suggestion from Jonas and me.

Like I say, the shape of things to come! And once again, thank you Bob Witrak..



# Ads from Members

[ TIDAL ]<sup>®</sup>  
we build emotions.



AVAILABLE IN THE USA FROM THE VOICE THAT IS:  
[thevoicethatis.com](http://thevoicethatis.com)

ADVERTISEMENT

(610) 359-0189





**With climate change, the weather is not going to get gentler. A "Lightning Rod" can protect your house from being burned down, but not even *that* will stop a *huge* surge from reaching your equipment!**

**But the new ThorStop can:**



To deal with up to really massive surges, the ThorStop was developed, employing a combination of Transil (TVS) and Gas Discharge Tube (GDT) devices. This is an ideal combo for this purpose, and far better than even the combination of MOV and GDT devices found in specialized surge protectors. MOV devices can be protected from the huge currents that a large surge causes by a GDT, but this will still not extend the life of the MOV beyond its *short* natural life. All three devices have different characteristics with strengths and weaknesses. Transils are super fast reacting, rated at better than 1 *pico*-second (!) and a max current handling of 200A (each - 10 mS/once, lifetime increasing as the current decreases below "8/20  $\mu$ s" = 442V @ 23A). This will not occur anyway because the GDT's fire before that can be reached to protect them, and there are two of them so 2 x 200A is good for 400A max, a 46A longevity threshold to begin with! Transils have roughly equivalent total current maximums as MOV's (20 - 100A+ as found in household units, but MOV's *only once*) yet MOV's are much slower reacting, in the "medium fast" *nano*-second range (1,000 times slower). GDT's are very slow compared to either of those to react with a *milli*-second reaction time (and dependent on the rise time and voltage of the surge, *but* they can handle enormous currents, up to 25 kA (25,000 Amperes!) per device, *also only once under full-on direct lightning strike*. But there are *two* per Thorstop that can handle 2 x 25 k = 50,000A, or more than a typical full-on lightning strike very nearby before it gives its life to save your equipment, under the worst conditions. The two x two are functionally paralleled - one from **H**ot to **G**round and the other from **H**ot to **N**eutral because Neutral and Ground are tied together at the electrical panel. (A 3rd Transil is at H-G.)

Neither the GDT's nor Transils the **ThorStop** is made with die slow deaths like the MOV's commonly found in everyday surge protectors so long as their top current limits are not exceeded - and in combination the GDT protects the Transil. By combining the prodigious speed of Transils and current handling of the GDT's, the enormous capabilities of each complement each other. The Transil reacts instantly and covers the rising surge long enough for the GDT to react and take on the huge currents of a major strike. The Transils (3) handle all the smaller common everyday hits that eventually kill an MOV, but they never expire because the small hits don't tax them and the GDT's (2 main ones: H-G and H-N) protect them from over-current. A household circuit breaker is a slowpoke by comparison to any of these and never even notices the smaller surges until the GDT or lightning kicks it off - not soon enough to protect the equipment, which is what you need a **Thorstop** for.

**The ThorStop includes a built-in power filter which will reduce your noise floor. Its surge circuit does not degrade the sound while the filter actually improves it!**

**Contact:** Igor Kuznetsoff at: [gorkuz@yahoo.com](mailto:gorkuz@yahoo.com) for a complete ThorStop White Paper.



Sale items:

KEF Blade (demo price includes shipping)

demo pair  
(pictured)

\$25500

new

\$32000

DH Audio and Home Theater, LLC, 11 Mitchell Road, Parsippany, NJ 07054  
**(917) 923-0552**



# Directions to Paul Pomerantz's

Address: 729 Carlene Drive Bridgewater, New Jersey 08807  
Phone: Paul's home number: 908-707-8621  
Mobile: 908 884 8552  
**Phone:** 609-483-5000 or call meetings chairman Paul Pomerantz's cell 908-884-8552

Driving directions:

Google Maps Directions from Morristown (Those without GPS, Adjust to Suit):

287 S. to Exit 22 to Merge onto "US-202 N./US-206 N. toward Bedminster/Pluckemin."

Turn Right onto River Road. Use the Left two lanes to turn left at the first cross street onto US-202 S./US-206 S. (Jughandle u-turn)

Turn right at second traffic light onto Burnt Mills Rd

Turn left onto Country Club Road. Turn right onto Carlene Drive in Bridgewater. 3rd house on the right.

Paul Advises:

Plenty of street parking and I have room for three cars in my driveway.

Those spots will be given out in advance to those who truly need to park there due to physical limitations.

Please contact me if you need one of the driveway spots. Spots will be marked with an orange cone.