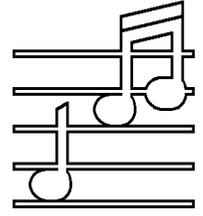


AUDIO BASICS



A MONTHLY NEWSLETTER OF AUDIO INFORMATION
VOLUME NINE NUMBER TEN OCTOBER, 1990

B&W Pays Attention to Our Crossover Improvements

You may have noticed that we were feeling a bit like Rodney Dangerfield last month, wondering why we were getting almost zero feedback on our major improvements to the B&W 801 Matrix crossover.

Well, we just received the brand new sales brochures for the new B&W Matrix 803, 804, and 805 speakers and proudly displayed in the brochure is a photograph of the crossover boards - **separate boards for each section** - with the statement in the literature **“The high and low pass sections are physically separated to minimise component interaction.”** It certainly is nice to see that the most important B&W user, the factory itself, understands that what we did was correct and useful - so useful that the new model B&Ws incorporate these ideas of ours themselves. The bass alignment filter and the damped frames on the Matrix One, Two, and Three speakers were our original ideas too – concepts that we explained and demonstrated to John Bowers several years ago during a factory visit, but that’s another story.

One of my readers did pay attention to our discouragement and has written me a very thoughtful letter about the situation. His comments are useful and I am printing his letter

below so you will have a better understanding of how difficult it is to set original standards in a “me too” world.

October 4, 1990

Dear Frank:

“Gee, if you guys have such a good grasp of audio engineering to make my amplifier work that much better, then maybe your speaker modifications are well done too and I had better look into them.”

- MFK after reading the AVA 801 modifications

The September issue of *Audio Basics* arrived yesterday, and it at last has prompted me to respond to something that seems to require a few words.

In recent AB issues, you’ve been letting on that you are becoming increasingly frustrated and discouraged by the lack of recognition, respect, and/or validation the audio world has been giving you. This frustration is, of course, completely understandable. I don’t need to state the reasons. But, it’s also completely understandable why the hi-fi universe doesn’t give you your just rewards.

Unfortunately or not (because things in the universe are what they are, insensitive to

our wills, sometimes having motivations and serving purposes that aren't entirely clear), the fields of human endeavor generally have two components, the "task" dimension (i.e. what actually gets done, the task oriented goals of the process, the product) and the "social" dimension (i.e. the "culture" of the field, complete with mechanisms of power and influence, status, etc.) You can have a marked preference for one or the other, try to deny either one's existence, or wish things were different. But sure as sunshine at dawn, they are both present as psychological and sociological phenomena, and you must learn to make your peace with both of them. You can't bury your head in the sand. (Note: your desire for thanks, recognition, etc. may have as a disguise business interests, but in reality I believe you are wanting these rewards on a personal level. It is important to know that what you are wanting is called a "legitimate" reward because it is based on true, demonstrated authority, not political jockeying. You believe in a rational universe, and a rational universe should recognize and value products of reason. You believe you are doing a good job, and the network of humanity ought to tell you that. As Ayn Rand put it, you're looking for "fuel".)

The audio industry, then, is a bunch of people who consider it their primary task to better the tools consumers use to enjoy recorded music. But it is also a social network with all that goes with it. The unfortunate thing is that, unlike more rational "sciences", most people in the audio industry (yourselves excluded) seem to put a disproportionately high value on the rewards resulting from the social dimension. Another way of saying this is that for many, the social rewards are primary, and the task related activities are tools to that end. Thus, those in "privileged" or high status positions want to retain them for it is irreduc-

ibly of great importance to them. The position is primary, not the science or service.

Most people walk around with a certain agenda in their head - a topical list of what's important. Social organisms have them too. In the case of the audio world it goes something like: the type of hookup cables you use makes a BIG difference in the sound of your system, audio is 90% art and 10% science, tubes must sound better than solid-state devices, LP must sound better than CD, speaker spikes always work wonders, etc. In the world of rational mental processes, the agenda is nothing more than a logical manifestation of the demands of nature. It freely changes when it is discovered that the laws of the universe dictate it should. In the worlds populated by those who extract significant rewards from the social dimension, the agenda takes on a critical new meaning. It is not primarily or secondarily a manifestation of reason. Rather, it is considered the most fundamental tool of influence and status. He who determines the agenda is the top dog. He who seriously challenges that becomes an instantaneous persona non-grata.

So, here comes Frank. He presents the audio world a host of exceptionally well engineered products at really good prices. By bringing his goods to market, he is asking the audio press and marketing system to change a loyalty or two. That's a tough thing, but it happens every time a new product is released. But something else is happening. In a very outspoken way, you are also saying things like: all cables sound the same (if your electronics are not load sensitive), audio is 90% science and 10% art, a poorly designed amplifier sounds bad whether it's tube or solid state, CD's sound spectacular, spikes aren't always a good thing, etc., and you bozos don't seem to understand this. Gee, looks like a full fledged

affront to the establishment's agenda, doesn't it? Well, you may be absolutely right on all counts, but those in the industry give barely a shit about that. Rather than seeing the science in the arguments, they see a threat to their agenda and so choose to either ignore you, misinterpret you, or actively work against you.

Until those in the hi-fi world can find some way of seeing your products as not being inconsistent with their social interests, I am afraid that they will not give you the recognition you deserve. I am also afraid that the ways they may find to do this will have little to do with how well the products perform. I'm fairly certain that if you want someone in the audio press to have a love affair with your company you must: certainly not challenge the publication's agenda, and additionally either contribute significant advertising revenue to the publication, have personal relations with the staff, or implicitly or explicitly reinforce their philosophies. In your case, for the last of these to happen, they must first ignore your threats to their agenda and then either employ a lot of selective attention, misconstrue and fabricate facts, and/or change their philosophies. Looks grim, doesn't it?

You would certainly make a lot more friends if you addressed issues based on their agenda, or at least were "kindly respectful" of their agenda. Whether you can find that to be in your nature I don't know.

So much for the audio industry. What about the consumer? Why doesn't he recognize the glorious competence of your work? I believe there are four main reasons. One: the typical consumer, assuming he has been "enlightened" by the audio press or the audio salon salesperson, has assumed the audio press' agenda and loyalties (which is roughly equal to the salesperson's agenda and loyalties). Why not? Where do you start when you know nothing about some-

thing? You consult the authorities. In this case that would seem to be the audio press. The consumer is typically not a scientist, so he believes what he reads. ("Gee, all these 'disinterested' people are saying the same thing, so it must be true.") If he is not a scientist, he believes that audio, like music, may have magical properties and is mostly an art. He is maybe a little cynical toward engineers having heard for himself the hideous ways an "engineering wonder" with .00001% THD can ruin music. He is overwhelmed by the consistent claims of the "experts" in the audio press. Now he's asked to make a choice: accept Frank's different, rational agenda or play it safe and stick with the mob. Well, we've seen that scenario ad nauseam and generally know what to expect. It's hard, it's really hard to get someone to part with the mob.

To get the tribesman to turn rogue, you really must overcome a lot. You must demonstrate very clearly that your agenda and products are superior. You must also calm his fears about parting with the mob. How do you do that? The logical way is through reason, science and empirics. Given that most audio consumers are probably a bit lax in their rational and scientific abilities and probably have very little engineering knowledge, that part of the job is particularly difficult. Things like *Audio Basics* and your catalog help to communicate lots of rational and scientific information efficiently, but there is a big world out there that neither reaches (and I think both could be a bit more technically detailed - but more on that later). What you are left with are pure empirics; the consumer must hear, and like, the differences if he is to appreciate them. And where does he go to do that? Certainly not the local audio salon. Alternately, he must believe positive differences exist by seeing a glowing review in his

favorite magazine, and we've already dealt with that problem.

Even if you've had a success or two with a client, the mob attraction is still very strong ("How can all those experts be wrong and this one man be so right? What standards do I use to determine the truth? Mine or some statistical mean? Won't I be shunned?"). It's an uphill fight all the way, and no one is going to relent anything even though they should. It's irrational, but so are most people. It's a silly social thing.

Second: Many people who buy audio gear are trying to buy a hunk of status at the same time. While they might have a feeling that they ought to seriously consider an AVA product, they feel it just doesn't say "status" the same way a B&O receiver or Levinson amp does (note: there are two different shades of status implied by each of these products). Do you even want to make concessions to this problem? I think probably not, but it is necessary to remind yourself of it occasionally.

Third: A lot of people probably just don't care. Having the best isn't really all that crucial. They don't want to invest much energy into learning the differences between products or how wide the performance gap can be; the statistical average is good enough. As long as they don't feel they've been "had", they're happy. And you already know: many people amuse themselves by looking and/or dreaming, but a small percentage actually buy.

Fourth: consumers are just not in the habit of thanking people for a job well done. If something goes wrong, they'll let you know pronto. But if they like something, well, that's what they were expecting.

So, what am I saying? I guess I'm saying, "Don't lose heart."

In the last ten years I've seen you go from an enthusiastic engineer who freely communicated his joy in superior task accomplishment and all pertinent details to a somewhat bitter and cynical butt-blistered businessman who is very protective of his accomplishments. I must admit that what I was originally attracted to in you, and what differentiated you from the myriad of other audio "experts", was the depth with which you could identify and demonstrate solutions to problems. You either communicated or were willing to communicate all details necessary for me see with my own eyes the validity of your solutions. I needed to take nothing on faith. (It came as little surprise years later to learn that we were both fans of Ayn Rand). You were willing to discuss any question asked. And I learned a hell of a lot in the process. My big regret was not having the financial resources to buy from you all I wanted (so what's changed?).

I understand your need today to be more protective. But I'm not sure that I would have the same conviction of your competence today if I was not able to see what I saw so many years ago. In your efforts to protect yourself, I am afraid you have begun to look an awful lot like the animals from whom you are seeking protection. The elements of differentiation are diminishing. By shrouding your engineering in secrecy, I have no way of knowing if you're really any better (or different) than Conrad-Johnson, Adcom, Hafler, or Carver.

Maybe I'm the exception. Maybe the allies you would win if you were once again as open as I remember wouldn't pay for the rip-offs resulting from the openness. But I ask you: even if it didn't, what kind of world do you want to live in? Do you want to lower yourself to the level of the savages, or would you rather live in a world a tiny bit closer to the one you would like. The manifestations of your bitterness may indeed

work to your financial advantage, but I fear they will have disastrous effects on your soul.

A while ago, in the never ending process of honoring and strengthening myself, I came to a point where I had to deal with the element of truth in the saying, "Nice guys finish last." After some consideration, I finally concluded that, "If nice guys finish last, then we must have twice the fun running the race."

Finally, I'd like to say that if I ride you hard sometimes, it's not because I don't think you and your company are the most competent audio people around. When I say something sounds a bit fuzzy or a bit warm, it's because I know when you deal with a ~~problem in a concentrated way over long~~ periods of time you can start to lose a bit of objectivity. You start getting used to certain colorations and then take them for granted, especially if they're not too unpleasant and if there are other qualities present sufficiently stunning to distract you. For some strange reason, when I'm presented with the best, I can't help but look for ways to make it better. This is both a personal strength and a weakness. Anyhow, I assume my thanks and appreciation are implicit. I will try to be a bit more explicit with it. But if I forget, please remember that the proof is in the pudding, that there is not a single piece of equipment in my system that you didn't have something to do with.

Sincerely,

Mithat Konar

Atlanta Audio Society Members Review The Mos-Fet 400E Amplifier

In January, 1990, I built a Mos-Fet 400E amplifier in an old and well used Dyna St-

410 chassis free of charge for the Atlanta Audio Society under the condition that they evaluate the stock Dyna St-410 amplifier at a club meeting before our services were performed and then again afterwards, so that interested audiophiles in the Atlanta area could find out directly that our work is more than a few "resistor changes."

The Mos-Fet 400E amplifier has been providing flawless duty for many of the club members for the past many months, and finally a written evaluation of it has appeared in the *Atlanta Audio Society News*. They have kindly given me permission to reprint the evaluation and here it is in its entirety. Note that the evaluation is not an official endorsement of the amplifier by the club – it is simply the consensus of those listening to it in a serious listening session. However, it is nice to finally get some reasonable comments in print about one of our products (*The Absolute Sound* seems to have permanently lost their very favorable Mos-Fet 120D review they had promised – the reviewer had called me one time to tell me it was the "best solid state amplifier he had ever heard driving Quad electrostatics"). So here is the Atlanta Audio Societies' review exactly as Chuck Bruce wrote it.

"It is high time that we provide a fair assessment of the Van Alstine 400E Power Amplifier. Frank Van Alstine ably re-engineered Alan Gabrielli's Dyna 410 series amp, returned the amp to Alan early in 1990, and generously refunded Alan's \$650. For this we are most appreciative. I personally regret the long delay in an assessment, plus the fact that earlier comments about this amp were incomplete. I say "assessment" instead of "review"; only a few of us in the AAS may claim to be professional reviewers. But yes, we do comment on what we hear as individuals or in a listening group. It is however, the stated policy of the

AAS Constitution not to “officially” endorse or recommend any audio product. Our purpose is to expand the knowledge and enjoyment of recorded music and equipment. So stated, we shall forge ahead with what several of us have heard over the past weeks and months. In the end let the individual listener be the judge.

I have had the amp on loan from Alan for some weeks now, and a few evenings past I invited over our resident record reviewer, Phil Muse, and Bill McCulloch, AAS V. P. for a listen. (Dr. Phil writes reviews for one of the local papers as well.) Both of these fair and open minded individuals have many years of listening experience and I respect their opinions. Plus, Alan may have his own observations about this amp that he will share with us.

The amp is **now well seasoned and has behaved flawlessly since first received** from Frank in early 1990. I have spent many hours with the 400E and it has been an excellent fit to my current (and modest) but revealing system. The 400E's price point fits nicely with the Conrad Johnson PV-2 pre-amp, vintage Audio Research D51 Power Amp, Focus Systems .5, High Definition 2-way Bookshelf Monitors (sometimes paired as satellites with an Audio Pro 2B-40 Subwoofer) on 22" Chicago stands, Shure 50Q CD Player, Maplenoll Ariadne (Reference pkg.) Air Bearing Turntable with Sumiko Blue Point MC Coil Cartridge. I also often use the Spica TC-50 as a reference monitor. Such glory in the mid-range... With assorted mid-priced cables by Monster and Esoteric Audio. This modest system will resolve differences in components, and had no problem doing so when the AR was replaced with the 400E. Our intent is not to pick apart the amp, just give a fair assessment. What pleases one listener may not please another in their respective systems. The 400E may be a touch analytical to some listeners, but we can't speak for

them here. My ears and system are normally “tube” based but it is good to have a listen to a capable MOS-FET amp such as the 400E. Thanks to Frank, we have the chance.

For starters; the MOS-FET 400E is an enhanced version of the 200 wpc into 8 Ohms, 20-to-20khz, < 1% THD, 400D listed in the 1988/89 catalog. This amp features Van Alstine designed circuits housed in a Dynaco 410 series chassis. Frank is well known in the industry for his novel pre & power amp creations based on Dynaco, Hafler & Crown chassis, usually saving only the critical transformers. Van Alstine stresses that the 400E is not a parts replacement amp, but features purpose built circuit designs. Also featuring the best in fiberglass boards, metal film resistors, film capacitors, and highest quality, selected semiconductors. Multiple and isolated power supplies provide stiff current & voltage sources to the boards. Quiet sonic performance is stated to be the sterling quality of this amp. And when you pull the cover, build quality is excellent. The 40+ lb. amp runs cool with a quiet fan. Finished in black, it visually melts away and just makes music.

Then the sound. My musical interests, as those of Phil and Bill (& Alan) are wide ranging. We love the piano, the soprano, the orchestra, strings, and a dose of jazz to boot. Just to name a few. Almost nothing is off limits. So when we listen, we sample flavors of all. Our collective notes here in no way cover all selections sampled, but do represent a fair cross section.

Now the piano is one of the most demanding of instruments to record and playback accurately. It must sound like a real piano to be credible. In the case of the Liszt Piano Sonata in B Minor, featuring Elizabeth Lonskaja on Teldec Classics; CD 2292-4494-2, the instrument was recreated with full authority and natural tone color. This piece

contains elements that range from the sublime to the demonic. Drama is the emotion felt through much of this fine composition. The Liszt B Minor may not be everyone's cup of tea, but it is a real test of a reproducing system's capabilities. The soft passages fairly floated out of a deep quiet space. No distractions, just pure uncluttered, involving music, played by one of the world's greatest artists.

Another impressive example of the piano is the recent Chesky release featuring Earl Wild, and his Gershwin Transcriptions, Chesky CD-32. This array of transcriptions is definitely for the Gershwin junkie and I (& we) are no exception. The room fell quiet as we intently absorbed Earl's delicate and sensitive play of "Fantasy on Porgy and Bess". The improvisation of "Someone To Watch Over Me" was another quiet beauty as well. Again, any chit-chat quickly ceased, and we sat back for an attentive listen to the music, not the system.

The Soprano Elly Ameling is one of my (our) favorites. This is especially true as featured on the 20 yr. old, Schubert Lieder Songs reissue. Remastered on CD by Deutsche Harmonia Mundi, Editio Classica CD 77085-2-RG. Her voice here is stunning. The voice of a then 22 yr. old singer, who as Dr. Phil said; "was way ahead of most singers at this age". This was another case of where one could have heard a pin drop. Phil stated that he especially liked the high-lilting charm displayed in the "Der Hirt auf dem Felsen". It was as if she was; "Longing for Love's Fulfillment." *Phil will quickly lapse to his sentimental side if you don't watch him. Or was it the fine wine & Pizza taking hold.* Elly's range here was recreated with natural beauty. No unnatural colorations here on the Van Alstine 400E. Her voice fairly soared through space.

Another favorite is the Sibelius Symphony No. 2 in D Major. A Chesky DMM LP CR3,

reissue of the Royal Philharmonic. The first movement, "Allegretto" is an emotion awakening experience (unless you are configured of stone). Filled with drama, it sets the stage for more to come. To quote Sibelius from the jacket notes; "Music begins where words leave off". Indeed true. The soundstage here was about as wide as it gets on this system in this room. Ample inner detail was evident. The 400E placed no limits on the powerful transient attacks here. A real hair-stander this one.

We also listened to selections from the original 30 yr. old Telemann Society recording by Richard & Theodora Schulze, *Heritage of the Baroque*, on VOX LP, STPL 516.260. Of special interest were selections from the collections of Michael Praetorius and Dietrich Buxtehude covering the period 1600-to-1750. "The age of secular music in the bravura style." No pro music critic am I, but the natural recreations here made a believer out of me, as we were transported to another time. (I would say another place, but readers would think we were on mushrooms.) I must add, the Schulze's are now members of the AAS. Glad to have em'.

And finally, a ditty by Richard Schulze titled; Variations of "What're YE' Going' T' Do Wt' A Drunk Sailor" (Brings back memories). Featuring Richard himself on recorder. Another fine variation of a piece from an earlier era. As an aside Schulze claims to be a famous seventeenth century composer who was born in 1928! Poor lost soul. I should also add that the 400E allowed the Sumiko Blue Point MC Cartridge to shine through (via the Maplenoll Ariadne) with all its dynamic beauty. The Blue Point, is a real bargain at < \$100.00. Give it a try.

Throughout personal and group listening sessions, the 400E performed up to Frank's stated standards to my ears. A very dynam-

ic, business like, yet musical power amp, featuring a sound stage with depth and width, and an ultra quiet background. If the source material background is quiet, then the 400E adds no background of it's own. Instruments (and voices) were set apart in small ensemble material with no image blurring. With larger scale material, the orchestra was allowed to fully bloom. The full audio spectrum was recreated in a natural manner, uncolored and uncluttered to me. This amp should satisfy the dynamic power and range needs in many a Hi-Fi system. Cost conscious audiophiles may do well to audition this amp when considering a change or upgrade. It may just be the correct amp for you. This 400E is hard to beat, especially at this price point. As program schedules permit, we will feature the 400E at more future meetings. Thanks to; Alan, Bill, Phil, and especially Frank."

A Patent Granted Celebration Sale!

We got more worthwhile recognition this month – fifteen of the sixteen claims we made in our U.S. Patent application for the Fet-Valve vacuum tube hybrid circuits are being allowed with no dispute at all from the U.S. Patent Office. A strong broad scope patent is being granted for our original engineering work.

Because we will not need to pay our patent attorney to argue the case with the government a second time, and no compromises are required requiring expensive legal rewrites to get the patent issued, our costs associated with protecting our rights this time are less than we had projected (good patent attorney time comes at about \$200 per hour now - yipes!).

So we are going to pass the savings along to you. **From now until the end of December, 1990, deduct 10% from the price of any Fet-Valve equipment you order from us.** Help us celebrate the government's

recognition of our original design work on the best hybrid audio electronics there is by purchasing it for the lowest prices ever. Sorry, these prices are not retroactive. Lets hear from you soon but make sure you allow us 3 weeks to build and test your equipment.

"Bit-stream" CD Players – a Few Numbers for you to Think About.

Normally I would tell you to pay attention to the music, not the numbers – but when the numbers get hammered on as hard as they are by the upcoming "bit stream" (one-bit) technology CD players then it is time to convert the numbers into more meaningful data for you (not advertising claims).

A standard 16-bit CD player sampling at 44,000 times per second yields 65,536 discrete amplitude levels or 96 dB of potential dynamic range. A 16-bit CD player with times four oversampling converts the data to 18 bits of information at 176,000 times per second and yields 262,144 discrete amplitude levels and 108 dB of dynamic range.

A one-bit system with 256 times oversampling converts the data to the equivalent resolution of just 9 bits. This yields all of 512 discrete amplitude levels, or 54 dB of dynamic range! Wow! This will change the resolution, dynamic range, and information potential of your compact disc to just about that of a kiddy phonograph.

Yes, there are those audiophiles that claim that they like one-bit systems best (or that they cannot hear any difference). If so, they certainly could save money shopping at Toys R Us for their high fidelity equipment.

Meanwhile, we have one brand new Philips made bit-stream CD player for sale, complete with Omega output stages. This Magnavox CDB624BK01 machine is available right now for just \$250.00. There probably won't be any more until the sampling speed of one-bit systems is improved many times.

Used Equipment

We have three stock Pas vacuum tube pre-amplifiers available this month. One is a real nice Pas-3 unit with gold faceplate and knobs that I have personally gone thru and tested. I cleaned the controls and switches and it works and looks about as good as new. The price is \$149.00 with a 6 month warranty.

Then there are two very nice, but older Pas-2 units available too, for just \$99.00 each. These have the brass faceplates with brown plastic knobs, but are in very good shape. We will completely check out these too, to make sure the circuits, controls, and switches are functioning properly. Each has a 90 day warranty.

We still have Super Seventy amplifiers for sale, complete with our custom power transformer and 6GH8A driver tubes for \$595.00 each, and a new supply of St-120 chassis at \$395 for a used chassis (new circuits) Mos-Fet 120D or \$445 for new black chassis units.

Oh yes, buy any B&W speaker from us during the Fet-Valve sale and get it for 20% off B&W's current suggested retail price. See - it pays to read this to the very end!

Frank and Darlene Van Alstine