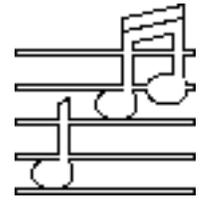


AUDIO BASICS



A MONTHLY NEWSLETTER OF AUDIO INFORMATION

VOLUME NINE NUMBER THREE MARCH, 1990

The Great Wire Challenge - Results to Date!

Whoops, there aren't any results so far – unless I can interpret the complete absence of any cables to evaluate at all as being a meaningful result. I suspect this is the case.

So far we have received a phone call from one, and only one, cable supplier promising samples for evaluation but we have not received the samples supposedly being sent well over a month ago. We have not had any response at all from any other supplier and we have no cables at all to listen to.

Thus we are forced to continue to listen here on many feet of ancient Radio Shack wire and interconnects salvaged from old Dynakits. How sad. It is amazing we are able to design audio components so many people appreciate when we are so handicapped in listening to them. Its like going for a ride in your car without your Electra Fuel Igniters and your Fuzzy Dice.

I would ask my readers for cable samples but everybody knows that once a cable has been broken in in one location, moving it across the country and then plugging it in again in some other physical orientation (together with the vibrations of shipping) will warp all its little good sounding molecules out of alignment (much like losing the Dylithium crystals in the warp drive) and that will ruin the sound. Besides, we might get the wires plugged in backwards and risk getting the output out of the input (kind of like when your toilet stops up) and you know what kind of a mess that makes. No, we don't want readers' cables, we cannot chance having an accident with them and having all those ohms and electrons running around loose all over the place. We will just patiently wait for our single supplier who responded to actually send samples (maybe). This scientifically reported report will be continued.

The Glass Audio Saga Continues

I recently received a letter from Ed Dell of *Audio Amateur* more or less admitting his error in publishing the unethical Mottram St-70 review and offering to review another sample of the Super Seventy. Here is my response to Mr. Dell:

Dear Mr. Dell, thanks for your letter of March 6, 1990 offering another review of the Super Seventy amplifier. It is nice to see

that you finally realize that the first review was terribly unfair.

After examining Mr. Mottram's photographs further, and contemplating his motive of self-promotion in the "review" you published, it becomes clear what happened regarding the Super Seventy he maligned.

First Mr. Mottram built the amp up with his own parts using the capacitors shown in his photograph, with the first section in back-

wards. Of course putting 450 volts the wrong way across an electrolytic capacitor will cause it to fail completely, shorting out the power supply. Thus I am sure he never listened to our Super Seventy all all - as it could not have been working at all with a shorted first supply section. **His "review" was simply a self serving complete fabrication to promote his own product.** Then, later, when my client wanted to buy the Super Seventy from Mr. Mottram, he put the board back in and discovered part of his mistake - that the reason the amp never worked was because the capacitor was reversed and destroyed. So then he got two new capacitors (two 68 μ F/400V units) and installed them in the first two sections replacing the one destroyed and the next section also. Note that the 100 μ F/450 volt units remained in the 3rd and 4th sections all the time (where only 400V units are needed). Mr. Mottram did not realize that he had again screwed up, using 400V units in the first two sections where 450V units are necessary, and damaged the supply again by overvolutaging it. Whether or not he listened to the unit again after re-installing the board I do not know, but even he admits it was an awful kludge by the time he sold the amp to my client. Evidently he thinks selling at a low price justifies bad workmanship.

Do note that the other problems with the Super Seventy board, namely the out of tolerance parts, the inadequate bias supply, and the wrong values in the input filters remain the same as when Mr. Mottram built the board the first time and **these errors have not been addressed in print!**

Mr. Dell, once again I ask you to publish a retraction in *Glass Audio* telling your readers that the sonic findings of Mr. Mottram with respect to the AVA Super Seventy amplifier are not relevant because Mr. Mottram miswired the amplifier and it is defective.

Also write to the other manufacturers in

the review (with a copy to us) and inform them to immediately quit sending out reprints of the review as promotional hand-outs. They are still gleefully using this misinformation to discredit us!

When I see this evidence that you really care about reversing the damage you have done, then I will gladly build up a Super Seventy for review by Mr. Davenport at no charge. Note that it will be necessary for you or Mr. Davenport to supply me with a working Dyna St-70 amplifier to start with because I do not have any used spares available here. At this time we are only selling the kits, not the finished product. I will not ask for the finished amplifier back so you should be able to recover the cost of the stock working unit. They are very hard to come by in Minnesota.

Mr. Dell, you have "stonewalled" this unfortunate episode when you could have corrected it in the first place when you got my original letter. An offer to have another writer re-review the amplifier at a future date simply does not gain my confidence until I see an actual retraction in print in *Glass Audio*. I also hope you will add me to the mailing list for *Glass Audio* so that I can see first hand if any corrections have been made.

Sincerely, Frank Van Alstine

B&W Has a Great Contest Going On!

Simply stop by your local friendly B&W dealer, audition B&W loudspeakers, and register to win a free trip for two to London with a guided tour of Abbey Road Studio plus \$1000 expense money.

You can also pick up a great new B&W compact disc for just \$5.00. This disc contains classical music produced at Abbey Road for EMI (they use 60 pair of B&W speakers as studio monitors - see the connection?) We have entry forms and CDs waiting for our local customers. Come and see us soon.

Sorry, no mail order entry forms or CDs – B&W's object is to bring you in the dealer's front door and this bonus will make your trip more worthwhile than ever. The last date to register for the drawing is July 31, 1990, but get going now to get that super \$5.00 CD.

The Acoustat Spectra 11 Upgraded

We gave the new low priced Acoustat Spectra 11 electrostatic hybrid loudspeaker system a pretty glowing review herein a couple of months ago. But we had reservations about the quality and quantity of the speaker's bass response. I have been doing a lot of listening to the Acoustats recently and even though I like the midrange musicality as much as any speaker I have heard, I started to get tired enough of the "rubber" in the bass to think about doing something about it.

I talked to the designer of the woofer section and confirmed that the bass response was "designed in" for marketing reasons. Most people shopping for a lower priced speaker (especially younger buyers) don't really want an honest musically accurate speaker – they want something that duplicates the "disco distortion" they are used to listening to in every bar and at every amplified rock music performance they have attended since high school. If it doesn't boom, it can't have any "bass" as they know it. Most have never heard a musical instrument without the "benefit" of a PA system at all. Here in Burnsville, they start stuffing a microphone in front of the soloist at the Jr. High level. Nobody ever does get to hear the music - just the PA system thrashing around. If the bass does not sound like a herd of whales farting, then it cannot be any good.

So Acoustat, wanting to sell a bunch of Spectra 11s to entry level buyers, and knowing that there are a whole lot more boombox buyers out there than there are people who appreciate high fidelity, delib-

erately designed in an underdamped woofer. This gives the speaker the excess mid-bass energy the neophyte thinks of as bass, but at the same time it makes purists like you and me wish for a cure.

The soon coming \$1500/pair Spectra 1100 is supposed to have a fix, a heavier woofer magnet in a slightly smaller enclosure. But I wanted an upgrade for the Spectra 11 now, and one you can easily do without cutting, hacking, or spending much money. The designer said a woofer with a larger magnet would be a step in the right direction, and mentioned that an independent writer had called Acoustat telling them that using a Radio Shack polypropylene woofer had improved the bass. I found out which woofer had been used and tried it myself.

The result was a mixed bag. The bass was tamed quite a bit, but the Radio Shack woofer (which had a 10 ounce magnet - bigger than the original but still pretty skimpy) started to bottom out on the big Telarc digitally recorded drums on the Peer Gynt Suite. Want my pair of still good, hardly used Radio Shack 8" woofers cheap? Send \$35.00 now! (Shack's price is about \$75.00).

So I headed out to the friendly local speaker reconing and raw speaker sales shop with both the original Acoustat woofer and the Radio Shack woofer in hand, looking for something with a much bigger magnet, better power handling, a lower Q, a lower resonant frequency, and with a smooth response into the lower midrange as the Acoustat crossover lets the woofer extend up a little further than I would like.

With some patience on the part of the shop's owner, and judicious use of his sweep generator, I finally found something pretty close to what I was looking for. It is an eight ohm eight inch paper cone woofer with a twenty ounce magnet (about three times as big as the original) an inch and a half voice coil, a resonant frequency of

about 40 Hz (the original was at about 70 Hz) and with a 70 watt RMS power rating. Interestingly enough there were eight inch woofers available with three times more magnet yet, but they were all really designed as car radio speakers, with a much higher resonant frequency - not useful for this application.

So we took a pair home and found they were a perfect mechanical fit in the Acoustat cabinet. Even the screw holes line up - no woodworking necessary at all. You do need to put a bead of Plasticlay or non-toxic calking compound on the speaker frame where it front mounts in the cabinet. The gasket on the original Acoustat woofer is glued to the woofer and the new speaker does not have the needed rear side gasket. It has a gasket only for mounting on the rear of a panel. You will need a solder gun and will have to remember which wire is the hot connection on the speaker.

Anyway we wired up a woofer, and fired up the system to compare the revised speaker with the original. Our first impression was not too impressive because we were temporarily using an antique original Dyna St-410 amplifier we had made a quick repair to help out a client on a slim budget. Unfortunately, just as I poured the coals to it again on Peer Gynt, that is when the old Dyna amplifier decided to go out to lunch again, and for a minute we thought my new carefully researched and chosen woofer was even worse than the Radio Shack one. But it was not the woofer's fault even though I was pretty excited for a bit.

So enough fooling around, we put in a big Fet-Valve 500 amplifier and got down to serious listening. As luck would have it, *Stereophile's* new test CD had arrived in the mail just before I came in with the woofer, and this CD contains a series of low frequency warble tones - perfect for evaluating the woofer's response with ears instead of test instruments. In comparing the revised speaker with the original, the

bass response with the new woofer was much flatter, more defined, and extended deeper smoother before rolling off. The results were promising enough to install the second new woofer in the remaining stock Spectra 11.

The results were certainly worth the effort. The revised speakers have a much purer bass response, and seem to have better dynamic range too. The boom and mud is gone. The overall sonic spectrum is a bit warm, but the midrange is gorgeously listenable and the highs are very, very pure.

The extreme highs are perhaps a bit subdued but this is a "vice" much easier to live with than a speaker that is too bright. Regarding this, the folks at Acoustat told me that by making a slight change in the value of one special low impedance high voltage resistor, the high end response could be tailored to be a bit flatter. We will try to get this fix installed in the future and report again. The Spectra 1100 is supposed to have a switchable contour control to give you highs the way you want them. In any event, the Spectra 11 high end is utterly musical and nothing else for \$995 a pair can touch it overall.

Oh yes, what was the woofer I used to make the big and low cost improvement to the Spectra 11? Do you promise not to laugh? Do you promise not to gag and choke? Do you understand that this is for real, I am not pulling your leg?

OK, its a Pyle Driver! Really! To be specific, it is the Pyle Driver Model W820 (paper cone version) and it is available most anywhere for about \$39.00 each. Don't mistake it for the polypropylene version of the W820. We did not test that model, but many "poly" cone woofers have their own muddy sound quality we want to avoid. Of course you can make your own experiments, but the paper cone version works just fine.

We are so happy with the results that we will install the W820 woofers in the Spectra 11 speakers at no extra charge when we sell you a pair. You pay \$995/pair delivered in the continental U.S.A. and you get the better woofers installed and tested. Of course we will supply the originals too so you can put the speakers back into stock condition if you desire.

Note that the big magnet woofers mean that you cannot use the speakers close to a TV set. The original woofers had an extra magnet section to partially shield them. You will need to keep the speakers a couple of feet away from color TVs now. But this is a small price to pay for the vastly improved bass.

Now you really don't need the B&W Acoustitune woofer with the Spectra 11s (but it will still add solidity to the extreme bottom end). The bass is good enough to just sit back and enjoy the music. They are available now. Tell us which woofer cabinet finish you want, the black or the oak laminate. All have black grills. This is a speaker system really worth owning.

More Power for the Fet-Valve Amplifiers

We are pleased to report that we have recently made a significant engineering improvement in the Transcendence Three hybrid Fet-Valve power amplifiers.

The Fet-Valve 200 has been replaced by a new 150 watt per channel Fet-Valve 300 model. The Fet-Valve 400 has been replaced by a new 250 watt per channel Fet-Valve 500 model. The prices remain the same, \$1195 and \$1995.

A new 160 watt per channel very high current version of the Fet-Valve 300 has been introduced, priced at \$1395. It is the Fet-Valve 300i and is for those of you that need extra drive current for a low impedance loudspeaker without needing to pay

for the extra power of the Fet-Valve 500. It is essentially the Fet-Valve 300 circuits in the larger Fet-Valve 500 chassis with 8 high current outputs and the extra heat-sinking capability of the big chassis, but at a more affordable price.

In addition, the four ohm drive capability of all the Fet-Valve amplifiers has been improved. Each model now has significantly more "muscle" into four ohm loads and when bridged.

We will make these upgrades available **free of charge** to our clients who have purchased Fet-Valve amplifiers from us this year. All Fet-Valve 200 amps sold in 1990 will be upgraded to Fet-Valve 300 models for no charge. All Fet-Valve 400 models sold in 1990 will be upgraded to Fet-Valve 500 models at no charge. Call us before shipping to schedule your amp in for the upgrade.

Older models will be upgraded at a nominal charge. Fet-Valve amplifiers purchased in 1989 will be upgraded for \$75. Fet-Valve amplifiers purchased before 1989 will be upgraded for \$150. These prices do include return shipping in the continental U.S.A. Foreign customers should contact us regarding return shipping charges.

Sorry, the Fet-Valve 200 cannot be upgraded to a Fet-Valve 300i as that requires a different chassis. Of course you could use our brokerage service to trade up. We have clients who would be eager to get their hands on a used Fet-Valve amp at a lower than new price.

We changed tube types for the Fet-Valve amplifiers last year from 5751 tubes to high gain 12AX7A tubes from China. The construction of the tubes from our Chinese supplier gives us higher open loop gain, lower noise, and lower overall distortion. It is necessary to make a minor circuit change to convert the amp from 5751 to 12AX7A operation. If your amp is set for 5751 tubes (look at the back label) we suggest you include an additional \$25 for a new 12AX7A

It Is Used Equipment Time Again

Here is a new list of used AVA equipment available to you from our "trade-up" brokerage service. Remember that each piece has been inspected and tested by us, carries our limited warranty - see description of individual units for length of warranty, and carries our satisfaction guarantee (subject to a 15% restocking charge).

We advise you to call us promptly at 612 890-3517 if you see a special value here you would like. Each month has essentially been a sellout because these are all units electrically as good as new at a much lower than new price. Note that we request that you pay for the equipment with a money order so that the person trading it in will not have to wait for a personal check to clear before we can ship his new equipment. You would like this too when you trade up for our best equipment.

1. Brand new **Transcendence 250 Series Two** amplifier. This is the same amplifier listed here previously - our first buyer simply has not come through with the necessary payment so it is available again. New price is \$1195 - the sale price is \$995.00 complete with a new two year warranty. Our best solid state amp at a real savings. Act now, this is an unusual value.
2. **Fet Three Plus Pat-4** preamp. A good used chassis with our best IC hybrid circuits. One year warranty, great working tone controls and precision volume and balance controls. A great preamp for just \$275.00.
3. **Fet Three 101** preamp. Our solid and musical basic solid state circuits installed in the full function Hafler DH-101 chassis. Tone controls, tape to tape monitoring, and a 6 month warranty. Only \$175.00!
4. **Transcendence Two Pat-5** preamp updated in April, 1988 with ground plane jack set. A very nice sample of our very best solid state preamp circuits in the full function Pat-5 chassis. One year warranty - \$495.00.

5. **Super Tuner Two** (Dyna FM-5 chassis) aligned in April, 1988. Our classic ultra-musical FM tuner circuits in very good condition. This is the only one of these to be traded in so far so act soon. Six month warranty. \$295.00.
6. Not one, but **two especially nice brand new Mos-Fet 120D amplifiers** with completely refinished black chassis. \$445.00 each with a new two year warranty. Match with one of the preamps listed above for state of the art sound. Special bonus, buy both amps and an AVA solid state preamp and we will install our solid state phase inverter board in the preamp at no extra charge to give you a stunning high power dual mono system. Think about it!
7. One client has several special stock Dynaco components that are so nice we need to tell you about them. **No AVA warranty on these.**

First, there is a brand new factory wired (never used, complete with original box, and cables) **Dyna FM-5** tuner for \$225.00.

Second, there is a exceptionally nice used **Dyna FM-5** tuner for \$150.00.

Third, there are two special **Dyna Pat-4** preamps. One is a brand new never assembled kit, in the original carton ready to build. There is also an assembled Pat-4 in new condition. Your choice - \$75.00 each!

Finally, we can offer some upgrades for these stock units. We will install our reliability enhancing LED replacements for the Tuned and Mute lites in either FM-5 for \$75.00 additional (including alignment) to give you a tuner that works better than new. For the two Pat-4 preamps, we will "sweeten the pot" by offering our Fet Three rebuild kit with either for \$125.00 extra or we will install the Fet Three kit (and build the unassembled Pat-4 for you too) for \$200. Thus, \$275 or less buys you a new Fet Three Pat-4 if you choose one of these combinations.

Frank and Darlene Van Alstine