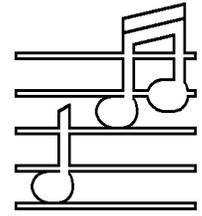


AUDIO BASICS



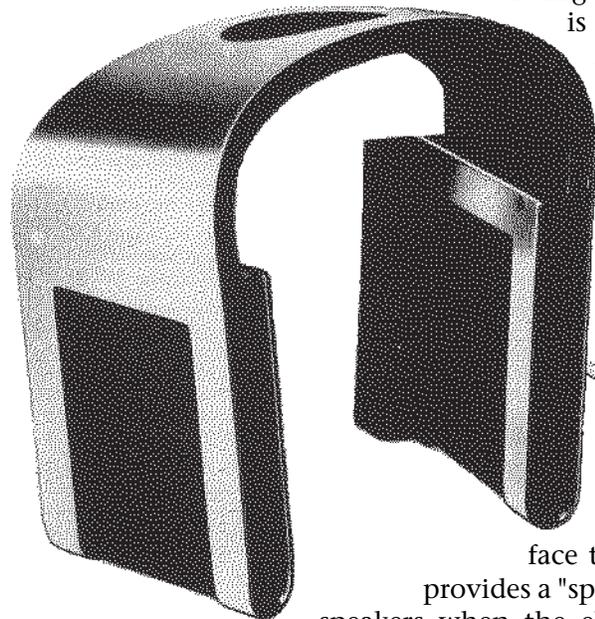
A MONTHLY NEWSLETTER OF AUDIO INFORMATION

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The Great Electrostatic Headphones Giveaway!

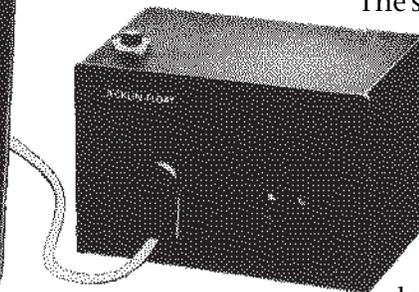
OK, this should get your attention once again. Here is another long lost item rescued from the dark recesses of our storeroom, languishing since being left here years ago by a negligent factory representative. It was dropped off for us to evaluate, and although wonderful sounding, it was far too expensive for us to consider successfully selling. Although we informed the representative our evaluation was complete and that we would not be buying, the factory rep never came back to retrieve it. We have given them plenty of time to retrieve the sample (over ten years) and now it is time to put them to better use than as shelf hold-downs.

What we are talking about is a set of the fabled JECKLIN FLOAT full range electrostatic headphones (I think they called them "ear speakers"). They are complete with their power supply - interface box and are in good working order (except that some of the foam padding is shedding - an upholstery supply shop should have replacement material available).



The power supply plugs into AC and the headphones plug into the supply box. This provides the proper bias voltage to the electrostatic elements and effects the connection of the headphones to your audio system.

The power supply interface box also has speaker wire input and output terminals (heavy duty binding posts). You connect the speaker outputs from your power amplifier to the interface box and connect your loudspeakers to the interface too, instead of directly to the amplifier. The interface provides a "speakers - phones" push-button switch which turns off the speakers when the electrostatic phones are to be used and turns off the headphones when the loudspeakers are desired. It is simpler than it seems in writing. Note that electrostatic headphones do not plug directly into normal headphone jacks. They must be connected to the power amplifier through their special interface box.



Anyway, for a deserving current *Audio Basics* subscriber these phones are waiting for you **free of charge**. All you have to do is write me a letter explaining why you should be the new owner of these Jecklin Float electrostatic headphones. I will read all the letters received before I write the next issue of *Audio Basics* and send the headphones, free of charge, to the writer who submits (in my opinion) the most convincing letter. The winner's name and letter (assuming it is short enough) will be published in next month's *Audio Basics*. Start writing again! If you are not the winner, think again about the Grado SR-200 headphones. They are better yet (and that is saying a lot) and we still have them for \$169 including shipping to you in the continental USA.

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p u b l i s h e r .

PRIORITIES – how to most cost effectively make your high fidelity system sound better.

or

No – what you don't need first is better sounding wires!

An often repeated occurrence here at Audio by Van Alstine is a call from a client requesting our advice and/or our sanction of their plans regarding upgrading an audio system. Fortunately most of these calls come in before the client has made irrevocable purchase decisions because far too often the decision making process has been subverted by salesmen's advice dedicated, it seems to us, much more to enriching the seller's pocketbook than to enriching the listener's listening experience.

I think it is time to lay out a few simple and logical guidelines to reinforce your ability to make the right purchase decisions for yourself for the right reasons and better fend off aggressive sales techniques dedicated to profits, not to help.

Remember that most current marketing techniques are dedicated to convincing you to buy, right now, what you don't need for reasons other than whether the product is useful for its intended purpose (sell the sizzle, not the steak). These techniques work on most everyone. For example, did you ever notice that only one side of the "miracle knives" are shown in the TV commercials? That is because, of course, only one side is machined and sharpened – the side you get to see on TV. The other side is flat - not what you would expect from a quality knife at all. Be more observant of what they are trying to sell you and ask yourself what purpose it serves and you will get better value for your money.

Now let us set forth what we and you need to know to make your audio system most cost effectively better.

First we need to know what your entire system is and is doing now, because the system is a chain. It performs only to the capability of its weakest link.

We often get telephone calls starting out, "I want new loudspeakers." We caution that what you really want is a higher fidelity audio system. We ask first for details about the entire system (including the listening room) to be able to determine if the present loudspeakers really are that weakest link.

Replacing speakers first if something else is the limiting factor in your system won't buy you better sound. In fact, often this approach will temporarily buy you worse sound! A more transparent and wider range loudspeaker may just more clearly inform you that your CD player and/or receiver is harsh and bright or that your room has reflections and resonances that should have been dealt with first.

In general, good older speakers are the last thing to replace because they tend to get better and better as the chain ahead of them is upgraded.

A good loudspeaker is one with low colorations and resonances – a speaker with no obvious vowel tone sounds. Listen to the speakers on white noise (available on most test CDs or interchannel FM tuner noise) at a modest level. With a really good speaker you will hear one sound, not a separate distinct hiss of a different character from each driver. It will sound like a waterfall. There should be no Eee or Ah, or Uuh or Ohh sound to the hiss – just a gentle whoosh. There should be no sharp edges on the high frequency noise components – no zingy or metallic sounds. When you move your head in relation to the speaker the hiss will

change pitch, but the changes should be gentle, not abrupt, with no sharp edges.

Some good older speakers have noticeable holes in their response on white noise. The venerable Acoustic Research AR3 is a good example of a speaker with this kind of defect. You can hear gaps between the tweeter and midrange and between the midrange and the woofer. This kind of limitation is much less obnoxious than a speaker with obvious peaks. If the speaker doesn't play everything, it is not a major problem – or at least not nearly as aggravating a problem as a speaker that plays what was not there at all. If the speaker makes a female voice sound like a cheer-leader, megaphone and all, when the program was not even recorded at a football game, then you may indeed need new speakers first.

One limitation of some good larger older speakers is that they were inefficient and had relatively heavy and difficult to drive woofers. The early B&W 801s were given a bad rap by many of the critical listening magazines because the bass usually sounded too heavy and thick. Actually, most of the amplifiers used to drive them, even very expensive ones, had underdamped low frequency response and tended to interact with loads. The reviewers were testing their electronics much more than the speakers. If you put a good powerful, controlled and stable power amplifier ahead of a set of these speakers you will get very good bass response indeed (and great mids and highs too). Since there are about 10 years of used 801s out there at about one-third the price of new ones or less, you might very well think about a set of them and the correct amplifier (such as our Ω mega II 400) for a very cost effective state of the art system. Of course this assumes that you have a listening room that will support powerful deep bass. If the structure is soft

and springy (as are the floors of many houses built over crawl space and many modern apartments) then deep bass will be transformed into deep boom. Either move or concentrate on a system that has less energy at very low frequencies. You likely won't realize an improvement with really wide range speakers if your room won't cope with the extra bass energy.

We do kind of laugh at all the very expensive contradictions going on out there regarding deep bass. First one pays a bundle for a speaker that can play great deep bass if given a chance (the B&W 801 Matrix). Then one pays extra to put the speaker on an expensive metal stand that looks like a refugee from the Louisiana off-shore oil fields. Of course lifting the speaker off the floor reduces its bass output (first you paid for the bass and then you pay more to then take it away). Next buy the extra cost equalizer box for the speaker (pay some more to get more bass back). Then pay a lot more for a giant underdamped vacuum power amplifier that cannot play deep bass at all (pay a lot more to take the bass away again). Then pay more yet for another amplifier and a sub-woofer and start the merry chase again. Actually what you needed was speaker wires that make better bass - sure!

The point to keep in mind is that good older speakers (especially those that were difficult to drive) perform dramatically better with modern high quality electronics driving them. We have many satisfied customers who have never replaced their Bozaks, their RTRs, their older ARs, their Fultons, or their early big B&Ws at all. In the priorities of upgrading an audio system, especially one chosen with care in the first place, replacing the loudspeakers is likely to be the last thing you need to do, not the first thing.

The system cannot be better than the source electronics, and these are the most likely starting points for a cost effective upgrade.

Early CD Players were all pretty much terrible, and many over five years old or so are on their last legs now anyway. The service life of a CD laser is about 2000 hours. As the laser starts to approach the end of its service life, disc trackability degrades and uncorrected errors will start to sneak in. CDs that used to work will start skipping. Replacing the laser in an inexpensive CD player is much like replacing the clock in a clock radio. You don't – usually it is not cost effective. An exception is the laser assembly in some Philips - Magnavox models. When Philips designed a new and much improved transport for newer machines (the CDM-4 laser - transport), they happily made it retrofittable into many of the earlier machines that had used the CDM-2 assembly. Thus, when servicing many of the older Philips - Magnavox CD players, the machine can be significantly upgraded by a transport replacement. The new CDM-4 will cost \$120 to \$150 installed, depending upon the model, so that in this case a repair (transport replacement) may actually be cost effective. Note that the new transport includes the new laser, the new photo diodes, the new swing arm assembly, the new transport, hub and motor and all, including the first stage of drive electronics. It is a complete assembly, not just a few repair parts.

However, our \$395.00 16-bit 4 times oversampling dual D to A converter Omega II CD player of today is dramatically smoother and more transparent than machines costing two or three times as much of only a couple of years ago. An upgraded CD player may very well be your best choice for a cost effective system upgrade. It improves all your components and your entire CD

collection too. Caution – at this point in time avoid “one-bit” CD Players and DAT recorders. As we have pointed out herein several times, these machines are limited to 8-bit performance on single cycle samples – they cannot retrieve all the 16-bit music information on the CD and thus cannot improve your system. Improvements must be made to the sampling rate before 1-bit systems will be acceptable to us.

Your phono cartridge is probably worn out now. There is still lots of music left on those big black plastic discs, why not retrieve as much of it as you can? The magnets in phono cartridges weaken with age. The stylus suspension elastics harden. Your phono cartridge degrades slowly even if it is not being used much. If it is five years old you should think about replacing it. We still build the Longhorn Grado for just \$99.00. Shure still builds good phono cartridges too. If you have been ignoring your records, think about installing a new phono cartridge and listening to all that music again.

In general, if your turntable is a belt drive unit in good condition, and if parts (especially belts) are available, then keep it running. Note that Mobil One Delvac synthetic truck oil seems to make a great platter bearing lub and Dow-Corning 1000 centistroke liquid silicon a superior tone arm bearing lubricant and dampener. I can supply you with a little syringe of the Dow-Corning fluid for \$5.00 in the continental USA. If you are using an old direct drive unit it is probably time to replace it if you are serious about records. We can still get Thorens turntables (although we do not stock them any more). There are new models available at reasonable prices. Call us for details.

If FM reception is a problem, we suggest that upgrading your antenna may provide more cost effective results than replacing the tuner itself.

Note that there are several modern inexpensive powered indoor antennas available now. Try one of them (we suggest you work with a local dealer so you can try something else if a given antenna does not work well for you). FM reception (and interference) is a very location dependent situation. You may not get stations your neighbor across the street has no problems with. Of course a big directional and high gain roof mounted antenna with a rotor is the final solution but this isn't practical for many. Note that many TV antennas and apartment complex TV distribution systems don't work well for FM reception at all. It is common to filter out the FM band from the signal to prevent interference with some TV channels. Make sure your antenna actually works for FM before blaming or replacing the tuner.

If you do need a new tuner, we still can build a few Ω mega II FM/AM tuners based on the Hafler SE-130 tuner chassis at \$395.00. This nice little unit is based on a Hughes - Delco tuning circuit with 18 presets (12 FM and 6 AM) and has given us very reliable and musical performance (with a good audio stage installed here). The bad news is that soon they will all be gone. Hafler has discontinued this item, building the circuit only into a \$600 tuner preamp combination this year. The preamp section makes the tuner too expensive a starting place for us. Act now if you want FM that sound much better than a radio.

If you own one of our older circuit sets built into a Dyna FM-5 or AF-6 tuner, it is likely it can be upgraded to Ω mega II performance at a very cost effective price. We have to evaluate each one on an individual

basis, depending upon the condition of the existing circuits, but our board set can be upgraded with the new Ω mega II chips and the improvements are usually most impressive. Call us for details.

If you own our older electronics built into Hafler or Dyna chassis, remember that we continue to support these units and that most are cost effectively upgradeable to new.

The chassis, heat-sinks, and transformers in these units tend to last and last, the Hitachi mos-fets we use have a nearly nil failure rate, and we have made our newest circuit designs retrofittable into our older units. Cramolin contact cleaner makes switches and controls like new again, we have gold jack sets for many units, and we have new black AVA faceplates for some too.

Of course remember our brokerage service (if you don't we will remind you of that alternative if you send in a unit for upgrade). Because our older units are so durable and musical they retain good market value here. If we can sell your old AVA unit and offer you a new one for less than the net cost of an upgrade, we will advise you of what your best choice will be – upgrade or broker and buy new.

The measurable characteristics of our newest power amplifier designs (the Ω mega II) that are obvious are stunningly low noise, very wide bandwidth, and outrageous stability (they don't even need a DC balance trim-pot). The musical characteristics are just as outrageous. Definition, transparency, imaging, smoothness, and freedom from fatigue second to none. The dynamic range and impact is amazing, transients and attacks happen right now, but roughness and "solid state sound" is non-existent. They grab speakers and make them play dynamics and bass definition you like-

ly never heard before in a home audio system. If your speakers and source electronics are good, an Omega II amplifier upgrade will be your most cost-effective system improvement. Our Omega II preamp circuits have a lot to offer too, namely tube like musicality and transparency on an op-amp budget. We can give that Pat-5 or Pat-4 another useful life for you.

Your audio system likely can be cost effectively improved if you apply the right priorities. Call us and we will see what is the correct starting place for you.

More Used Summer Specials

We still have one integrated control amplifier in an SCA-80 chassis available that we told you about last month.

It has been completely refinished as new. The top, main chassis, and back panel have been stripped and professionally refinished black. We can put this unit together with all new internal parts and circuits and turn out a complete lower powered Omega II Control Amplifier for the price of a Delta Control Amplifier - \$695 for the complete preamp - amp combination - and we will include gold ground plane RCA jacks and 5-way binding post output jacks at no extra cost. You will get our very best solid state amplifier circuits and our Omega II preamp circuits - complete with tone controls - for little more than the price of a preamp alone. The only thing original will be the gold Dyna SCA-80 faceplate but it is in good condition and includes like new gold knobs. Match this with a set of 600 series B&W loudspeakers and you will have a true state of the art quality low priced audio system. Sorry, no system discounts possible - we are offering this control amp at an exceptionally low price. Of course it has our new two

year parts and labor warranty. Add \$15 for shipping in the continental USA. We can wire this unit for 240V operation at no extra charge.

We still have several good Dyna St-120 chassis available and that means a special low summer price on Omega II 150 amplifiers while this supply lasts. The normal price is \$645. Right now we can supply you with a complete unit for \$545 - as long as you don't mind the original Dyna chassis finish. We have a couple of refinished chassis too. Add \$50 if you want one of these. Shipping is \$15 in the continental USA and these units can be wired for 240V at no extra charge.

Finally we are getting several nice Pat-4 preamp chassis so advantageously that we can offer them to you free of charge when you buy an Omega II preamp circuit set installed in them, along with our ceramic selector switch. You pay for the circuit rebuild (\$295) the ceramic selector switch installed (\$75) and shipping in the USA (\$10) and we will supply the Pat-4 chassis at no extra cost as long as our supplies last. These units will give you all new AVA Omega II circuits and save you \$125.00 over the price of an all new unit. They are full function with tone controls and dual tape monitors and have nice original Dyna faceplate and knob sets. They can be wired for 240V at no extra charge and carry a 2 year parts and labor warranty on our circuits.

Our 30 day satisfaction guarantee applies to all of these units subject to the normal 15% restocking fee. These are all one-time special values so don't wait too long before ordering. Thanks for your interest.

Frank and Darlene Van Alstine