

Audio Basics

August, 2000

An Irregular Newsletter of Audio Information from Audio By Van Alstine, Inc.

Thinking about new AVA equipment? Now is the time to buy, our prices must go up in November.

Due to significant increases in parts costs, incoming shipping costs, labor costs, and other factors beyond our control, AVA prices will increase 10% on November 1, 2000. Orders reaching us on or before October 31, 2000 will be filled at the old prices. Sorry about this folks, but the cost value ratio is still outstanding compared to your other choices.

When Is An AVA Product Not An AVA Product?

We were recently contacted by an old client who wanted us to do some servicing on an older customer kit built Super Pas 4 that he had recently purchased from an on-line auction. The seller told him it was in fine shape and had recently been checked out by us. However, when he received the unit, it was making more noise and hum than he had expected.

Upon inspection of the unit, we discovered a number of interesting "modifications" to our original design. First, some of the phono jacks were replaced with very expensive, designer-brand jacks. While needlessly expensive, there was nothing particularly wrong about the jacks that the original owner decided to substitute. However, they were hopelessly incompetently installed and were as loose as a fourth-grader's baby tooth the day the Tooth Fairy decided she needed it.

This caused intermittent ground connections and signal dropouts and was partially responsible for the noise and hum our client complained about.

Upon further inspection, we noted that a number of parts on the main PC board had been replaced with "improved" parts. Most of the expensive power supply capacitors had been replaced with parts of greater capacitance (OK but useless) but of lower and insufficient operating voltage! Most of these inadequate replacement parts were bulging and showing signs of overheating (no surprise) and likely would have exploded over time! Many of our carefully

selected matched film capacitors were replaced by a trendy "magically wonderful sounding" but large as planet earth parts dangling in midair. Those that were not replaced by these inappropriate monstrosities were replaced by polystyrene film capacitors. These capacitors have temperature characteristics that make them a poor choice for use in environments where they will experience elevated temperatures (their value goes way out of specification). Absolutely the worst choice possible inside of a vacuum tube preamp.

In short, in order to return the unit to what we would consider a usable state, almost all of the passive PC components needed to be replaced with ones that were reliable, fit the board, and of proper voltage and temperature stability. However, when we began to remove the parts for replacement, we noticed that as we softened the solder holding those parts in place, it flowed away from the joint to reveal horribly oxidized, bare copper pads and traces instead of the tinned copper that the PC board was shipped with. There is only one possible way that this could have happened: the person who assembled the unit used some audioplake "magic solder" or perhaps jewelry acid core solder instead of the reliable, solid, and easy to use Multicore solder we supply with the kit, essentially ruining the whole main audio board.

We might have been able to salvage the board by re-flowing each joint and trace under high heat and with a lot of rosin flux to boil away the oxidization, but the labor involved in doing this plus the cost of the needed replacement parts would have been more costly than simply replacing the entire main PC board assembly outright with all new parts.

What our poor client had bought himself was a good chassis, good controls and a good transformer. However, the electronic heart of the beast needed to be put out of its misery. Obviously, the claims the seller had made about the unit having been recently checked out by AVA were utterly bogus.

In this issue:

- Help in shopping the used market.
- DVD recommendations.
- Special on Ω III Control Amp - speaker combo.
- More detailed surround sound hookup guide.

So what's the point in telling you about our client's sad and unfortunate experience? First, to provide some motivation to issue the following warning and announcements:

WARNING

Be very cautious when you buy used AVA equipment from an on-line auction or any other source where you cannot examine the unit firsthand. The sad truth is that some people lie.

Call us first before buying our used equipment on the web or from other sources! We have excellent computer records of sales going back for years and likely we can promptly advise you of the authenticity of the product offered for sale if you will just supply us with the seller's name.

ANNOUNCEMENT #1

We are expanding our brokerage service to assist owners of legitimate AVA equipment who want to sell their equipment outright without upgrading to other AVA equipment. If you want to sell your AVA equipment outright, you may now do so through us. The only difference between the terms for upgrading versus selling is that if you are selling outright the consignment fee will be 30% instead of 15%. Keep in mind that this fee covers our time to inspect and test the unit, make minor repairs, clean the controls and switches, and provide a reasonable parts and labor warranty to the next buyer. Keep in mind too that we will likely get a much better price for the equipment as the buyer will be dealing factory direct and getting a factory warranty and satisfaction guarantee.

ANNOUNCEMENT #2

If you are contemplating the purchase of used AVA equipment from another source, we will examine and bench check the unit for \$50 (\$100 for large power amplifiers) plus the cost of shipping. This inspection can be made before or after the sale-although it is obvious that you will have maximum protection if you have the unit examined before any money changes hands. We take pride in our work. One thing we don't want is AVA equipment not meeting our standards being offered as the real thing. We build very high quality and very reliable gear, and we don't want misrepresentative and abused items undermining our reputation.

DVD Wars

Years ago, we were among the first to see the results of the much hyped and then very new DVD video format. We were told it was fabulous, that it would make you want to get rid of your VCR and never look back. The results we saw on this occasion did not have the touted effect. Frank, Aado, and Mithat all agreed that the data compression artifacts that are an intrinsic part of the DVD process were not only noticeable but were downright irritating. His heart sinking, Mithat foresaw a new generation of digital versus analog wars-but this time in the video arena.

Frank recently purchased a DVD player mostly for use as a transport for our Ω mega IV DAC. DVD is an additional type of player (usually with a coax digital output) which could be used for CD playback. We wanted to confirm that a typical DVD player would interface with our DACs without any problems.

The good news is that my sample DVD player seems to work fine as a CD transport. With an Ω mega IV DAC, the music from your CDs played back using a well designed DVD player as the transport can be as good as when used with a CD player transport only and our DAC. However, the DVD players we have tested will not load or play computer generated CD-R (write only) or CD-RW (write and read) discs. And, another word of caution is needed. DVD players are designed to be used with a TV monitor, and many user interfaces assume you have one on all the time. If you will be using a DVD player in your audio system, then make sure whatever you buy is easy to use without a video screen connected.

Aado suggests caution. DVD players have to play back many different formats. Thus be prepared to pay more for a DVD player in which no shortcuts have been taken in design. Be prepared to listen very carefully to your CDs on the DVD player you take home, and return it and try a different brand/model if it does not meet your expectations on music.

It is quite uncommon for a professional difference of opinion to exist at Audio By Van Alstine, so we consider it slightly newsworthy when it does. However, a point of contention has arisen regarding the future potential of the DVD medium. Based on what he's seen and heard to date, Frank is convinced that DVD will never offer performance that would make it more desirable than an analog VCR. Images in motion are irritating, video dynamic range is awful, resolution is fuzziy, and the sound is hard, rough, and so lacking in resolution that even an Ω mega IV DAC will do nothing to help. (In contrast, Frank's Laser Disc Player provides great picture quality and coming out its digital audio jack into the Ω mega IV DAC provides great musical quality too -- well as good as the mostly inept mixing and miking of movies will allow -- at least a hell of a lot better than in the best TXH movie theater. While Mithat has seen the same irritating compression artifacts and has heard a lot of pretty awful audio, he has also seen a few titles where the images didn't seem "processed" and the sound was not at all bad.

His friends in the mastering universe have told him that a lot of the problems we see with DVD are due to poor mastering. As mastering engineers get more experience and as better tools are developed, they expect the situation to improve dramatically. So, Mithat is currently undecided on the issue. Furthermore, he figures the format is here to stay-in one form or another-so we might as well begin to figure out how to make the best of it.

Frank also notes that with his giant C-Band satellite dish and a GI 4DTV digital satellite receiver he is able to receive both analog and digital broadcasts. In comparing movies and specials running in both formats at the same time, always the analog versions (uncompressed) are day and night higher quality than the digital versions, which are highly compressed, the same as a DVD is

One area where there is no contention is in the area of the DVD-A format. This audio-only relative of the video DVD-along with the completely unrelated Super Audio CD-is still not going anywhere, and at this point it looks like it might never get off the ground.

Really Good Sound, Really Cheap, Part 1.

We are a tiny bit stumped as to why our Ω mega III 200 CA integrated amplifier hasn't been blowing off the shelves. This little jewel packs overall performance of nearly the quality you would expect to get from an Ω mega III preamplifier and power amplifier combination into a package no larger than our SL line of preamplifiers (Which by the way, we recently made one inch deeper to better support the integrated amplifier option). Given that we stand to make more money by selling you a separate pre and power amp, we can't be lying!

The primary reason for the incredible cost/performance ratio found in the Ω mega III 200 CA is that it's design completely eliminates a preamplifier stage. Instead, passive gain control and switching functions directly feed a special high-gain version of our acclaimed Ω mega III power amp circuit. The amplifier's 90 watts per channel are more than enough for most



domestic applications and most loudspeakers. (We use it to drive a pair of Biro L/1s in our large listening room). It has all the switching and control functions you are likely to need. It has dynamics, resolution, and imaging nearly equaling our best solid state pre amp/power amp combinations. And it costs a mere \$999 (plus shipping). Unless your power and/or switching requirements are out of the ordinary, real music has never been easier or more affordable.

Really Good Sound, Really Cheap, Part 2.

Mithat Konar, founder of Biro Technology and AVA friend, recently brought to our attention a tiny, very accurate, and amazingly cheap loudspeaker system. What's more, he has measured and analyzed the system and has come up with a very simple modification to further improve it's performance. We felt that this was the perfect solution for music lovers putting together a secondary or low-cost a system, (or want really decent surround sound speakers) and so we have decided to make it available to AVA clients.

The loudspeaker in question is the Wharfedale Diamond 7.2. This British-designed system consists of a 5 1/4" plastic-coned woofer and 1" fabric-domed tweeter in a cabinet measuring 11 3/4" x 7 1/2" x 9 1/2". It weighs a mere 9 pounds and is magnetically shielded. With Mithat's simple modification, the Diamond 7.2 has clean and extended highs, uncolored mids, and a well controlled, slightly light, bottom end. (They were designed to be used close to a wall to help extend and balance the bottom, and we suggest that you use them this way.) While their extension, resolution, definition, and utter freedom from coloration are no match for the Biro line of speakers, a pair of modified Diamond 7.2's do an amazingly good job of making music you won't want to turn off--at a fabulously affordable price. Wharfedale's list price is \$299/pair. Our price including Mithat's modification--which can very easily be undone if it doesn't float your boat--is \$250/pair (plus shipping).

A Special Offer:

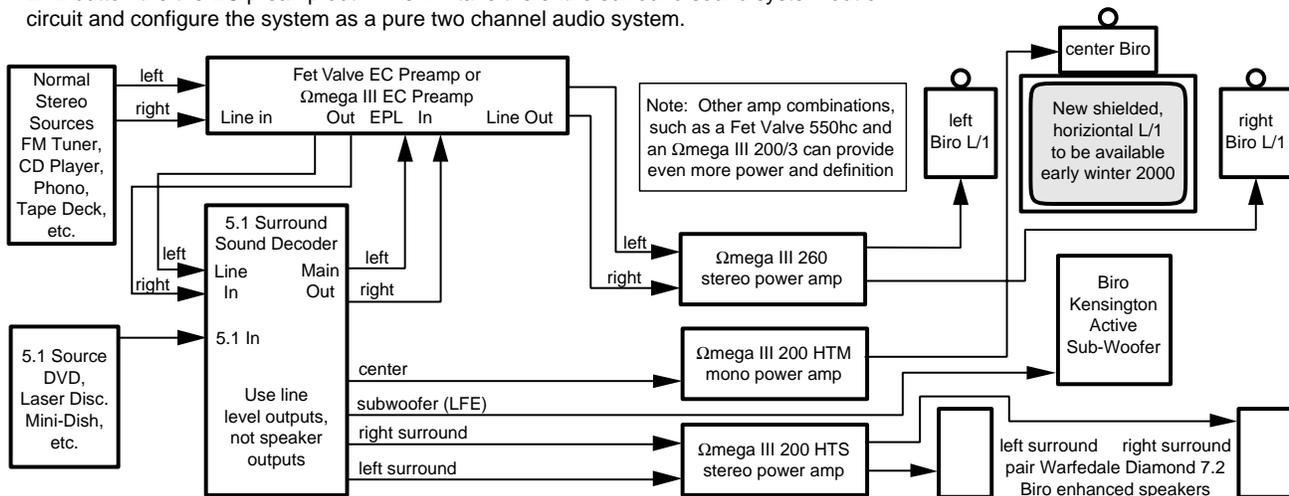
Through October 31st, when you purchase an Ω mega III 200 CA integrated amplifier and a pair of modified Wharfedale Diamond 7.2 loudspeakers, (or with a pair of Biro L/1 loudspeakers, available now in either black oak or natural oak) we will take 15% off the cost of the package (25% lower than the future price will be). If you've been thinking of putting together an office or bedroom system, or have been looking for a really affordable way to enter the world of high-fidelity, now is the time to act!

FIRST CLASS MAIL

How to connect an outstanding combination audio/home theater surround sound system using all AVA and Biro equipment

Notes: The video connections are not shown but they should be obvious. You can connect a high quality VCR to the EC preamplifier's Tape In and Tape Out loops and use it for high quality audio recording. Make sure the VCR sees an active video source while doing this to insure it has sync. signal to lock onto. In just a simple two channel high fidelity sound setup, you can connect the left and right variable audio outputs from your TV set into the TV/VCR inputs on the EC preamp and then use the remote volume control on the TV set to control listening level (turn off the TV's speakers). Actually in a simple video only system you don't even need a preamplifier. Connect the variable outputs from the TV directly to a good power amplifier and speakers. If you have a good Sony TV, use its built in surround sound generator for great spacial effects. This is the way I use my own home video system -- simple but really good. You can also eliminate almost all the expensive electronics by using a passive decoder (Chase or Dynaco) that operates at speaker level after the main power amplifier. The left and right amp speaker connections go to it, and then on to four speakers (two front, two rear). All you need is one good stereo amplifier and four compatible speakers. This system works well on all source material.

For Surround Sound use, push the EPL button of the EC preamplifier in. This will put the entire surround sound system in circuit. For high quality stereo audio use only, push the EPL button the the EC preamp out. This will take the entire surround sound system out of circuit and configure the system as a pure two channel audio system.



Note: The 5.1 decoder needs to have an internal volume control in addition to calibration controls. Calibrate the 5.1 system with the preamp volume set in a repeatable position (e.g., maximum level, "straight up", etc.). When you use the 5.1 decoder, set the volume in this position.