

# A-1 Review

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by Dick Olsher

From his base in Utah, Roger West has been perfecting and crafting full-range ESLs with a passion and technical integrity that's rare in any endeavor. For the past four years my audio aspirations have been intertwined with those of Roger, as the A-1 has been holding court and weaving its unique brand of magic in my reference room. Over this time frame, I've seen (and heard) the A-1 evolve I subtle, and more recently, in not so subtle ways to arrive at its current near "ULTIMATE I" status. For the record, the ULTIMATE I is a tweaked product, and "exalted" version of the standard A-1, which incorporates several refinements. Note that the electrostatic panel's laser-trimmed plastic "honeycomb", which was originally developed for the ULTIMATE series to provide extremely close tolerances for each cell and to virtually eliminate structural resonances, is now standard for all models in the Sound Lab lineup. A metal frame (which may be mass loaded in situ with sand or lead shot) replaces the A-1's stock wood frame. Also standard on the ULTIMATE series and the updated Pristine III+ is a toroidal high-frequency transformer. The toroid is, however, available as an option (1,000) on the Aura, A-3, and A-1. According to Roger, the toroidal transformer has been a dream come true, because it has considerably less leakage inductance and a lower excitation energy than other types of transformers. Its sonic promise is enhanced detail resolution and greater spatial focus.



The samples of the A-1 I'm reporting on include the toroid option along with the latest interface design (December 1995) which uses a new single high-voltage bass transformer. As you will discover shortly, this new interface with the toroid option is dramatically superior to previous designs.

The A-1 is one of those speakers you can listen to either seated or standing. Either way, put on a natural recording of say a human voice, close your eyes, and let the temporal lobes in your cranium do the rest. I assure you that the sensation of a person standing in front of you singing will be more believable than ever before. You will hear the throat and chest of the singer in a totally natural manner. Next time you have a chance to hear a double bass live, try to sit in the near field, close your eyes, and make a mental impression of its image size. It actually sounds big. Hey, it's supposed to sound much bigger than a violin. And that's how a double bass sounds through the A-1s, complete with the spatial majesty this instrument commands.

This is one fast speaker. It doesn't need a travel agent to get from here to there. Its low moving mass means that it starts and stops on a dime, without the overshoot and ringing that plague moving-coil drivers. Treble transients uncoil without the added zip or sibilance that so many dome tweeters lace musical textures with. Bright recordings sound that way all right, but at least there's no added insult.

That sensation of quickness extends all the way into the deep bass. I'll venture to say that until you've heard electrostatic bass, you haven't really heard what reproduced bass quality is all about. Yes, there's such a thing as FAST bass. It's not a technical oxymoron as some pundits would have you believe. It means bass with a short time constant. Reaction time for snails is on

the order of  $\frac{1}{4}$  second. For insects it is about  $\frac{1}{250}$  of a second. Most of us humans fall between the two, perceiving sensory stimulation in about  $\frac{1}{18}$  of a second. The shorter the time constant, the faster the response. The concept holds true for woofers as it does for humanoids. In plain English, a short time constant—especially when reproducing the decay portion of a transient—is essential for tight, well-defined bass lines, blessed with excellent pitch definition.

The speaker became an extension of the musical instrument: the smooth bass range, gutsy upper bass, realistic spatial impression, sense of hall, and above all else the eloquent expressiveness of the old master combined to transform the experience into a musical event. The speaker became a conduit for experiencing the original performance with its emotional content fully intact.

No other speaker in my experience has portrayed as realistic and as exquisite a tonal balance from the mids through the deep bass as have the Sound Labs. The mid and upper bass ranges infuse classical, jazz, and even pop music with the sort of full-body harmonic glow I've only come to expect from a live performance. Multi-way, moving-coil, loudspeakers have struggled forever in an attempt to cohesively integrate multiple drivers. The A-1 offers the perfect symbiosis of woofer, midrange, and tweeter: a single, low-mass driver, driven uniformly over its entire area.

ESLs have always appealed to music lovers who have instinctively connected with the medium as an ideal vehicle for grooving with the music. The Sound Lab A-1 with the toroid option is clearly at the head of the ESL class. Judged on the basis of its musical performance to dollar ratio, the A-1 represents an incredible bargain. If you have the room and the freedom to cater to its specific sitting and amplification requirements, the A-1 will give you lifelong pleasure.