

# ONE INSTALLER'S OPINION

## .....*DIRTY LITTLE SECRETS*

I know something all the A/V manufacturers know, but would just as soon you didn't. The A/V literate amongst you may know this, but I'll bet you didn't know the extent to which these penetrailia affect you. Further, I've been recently convinced that if you did, you might hold up before you write that check for the theatre upgrade you were considering. At least suffer through the following discussion, before you move that subwoofer down the road to uncle Fred, in favor of one that's "less boomy".

See, here's the thing.

The oft-not-talked-about-in-the-demo-room truth is really nothing more than Physics 101. Whether it's the "crispness" of the front sound field, the "brilliance" of the video monitor or the "smoothness" of the bass crossover you liked about that recent demo, the fact of the matter is, when you get this stuff home - **ACTUAL RESULTS MAY VARY** - like, a lot! You see, speaker manufactures A thru Z would like you to believe that by trashing last year's model 400 whiz-bang for this year's **MUCH IMPROVED** model 500, you will lose that "muddiness" you noticed, well, right after you installed them. The rear projection consortium would like you to think that the nice, bright 57-inch widescreen will do a much better job rendering Monday Night Football if simply moved from it's place in Good Guy's "rear projection row" and dropped right in your living room, and that the three-zillion watt subwoofer you just auditioned is supposed to eliminate (due to reverse magno-inflectionism) the headache your old unit gave you while screening Jurassic Park III.

That these apparent improvements, witnessed at HOME THEATRES 'R US, will translate to movie enjoyment bliss, is very much a function of your room environment, in every sense of the word. In fact, the probability that anybody's box will sound the same in your theatre as it did in the demo room can be calculated as follows: POINT SQUAT OVER INFINITY. Don't bother taking that out to more than three decimals.

Yeah, I know, that makes things harder, but to ignore this reality is to spend time and money with potentially little return. Most manufacturers in our business have significant R&D departments. They have "staff scientists" that have forgotten more about room acoustics and video imaging than the average installer will ever know. They've done the math and they know this "secret" too. They would just as soon you didn't worry about it, or think that you might actually have to invest in professional calibration and room treatments in order to optimize THEIR product's performance in YOUR living room/theatre. Unfortunately, you probably WILL have to, if you truly want movie nirvana.

It turns out, even seasoned installers learn a new trick or two every now and then. I recently spent several days in a seminar series entitled "Maximizing Home Theater Performance" sponsored by Sencore, one of the companies that makes the instrumentation required to properly calibrate a home theatre from both the audio and video standpoint. Without trying to shovel four days into less than a page, let me share with you the bottom line that rang so true for me.

The two day portion conducted by the ISF (Imaging Science Foundation) was pretty much just a review for me. I took the course about 4 yrs ago, and every year or so I go back to audit the current version - and it's always great to hear the gospel

according to Joel anyway (Joel Silver, ISF President). Suffice it to say that, even forgetting for a minute about geometry, overscan, convergence and gray scale, just the front panel controls of any monitor in your home couldn't possibly be set correctly out of the box unless they built it in your living room - a distinction that perhaps only Sam Runco could claim.

The second two days put on by the Home Acoustical Alliance and masterfully delivered by Gerry Lemay of Quest Acoustical Interiors, however, were really an eye opener for me. An engineer by degree, I have always had a firm grounding in the math and physics of acoustic principles, and, doing what I do, have read about everything there is to read on the topic of "room tuning" - but I'll tell you what - until you have walked around the periphery of a typical theatre with a sound level meter in your hand or seen the effect of early reflections on an Energy Time Graph, you probably would not believe what a (bad) room can do to your 5 thousand or 50 thousand dollars worth of equipment. You thought you paid big bucks for "flat" responding speakers? I've seen \$10,000 LCR's moved 1ft. and sound remarkably different. I've seen a \$2,500 subwoofer moved LESS than a foot and cause a 13db bump at the listening position. On the video side, I have a Phillips color analyzer that measures up to 15,000 degrees Kelvin when attempting to set gray scale. Many rear projectors I've done lately have been OFF THAT SCALE out of the box. (subscribers to this magazine will know that it's 6,500 K that makes us happy).

Folks, the message here is that you cannot simply go out and throw money at high-end A/V vendors and expect to have a perfect experience when it all comes together. If you really want to get it right, you will have to allocate part of the budget for someone with the equipment and experience to help survey your

room BEFORE you decide what to buy and where it should go, and help you tune and calibrate it post delivery. The really good news is that there are people and organizations out there (ISF, THX, CEDIA, Quest and Sencore), well aware of the problem, who care enough about the NET RESULT of the products you buy that they offer training and equipment to those who serve you, so that you can make the very best of whatever components you invest in - and count the room as a most critical component! The most serious amongst you may even want to attend this training road show ([training@sencore.com](mailto:training@sencore.com)) in person, to learn first hand the importance of this aspect of your theatre. It might well be the best investment you'll ever make in your own private Bijou.

P.S. Sorry about "penetrailia". I got a great Thesaurus for Christmas and just HAD to show off.