

dream theater

THE ULTIMATE EXPERIENCE

by Chris Martens

Gallo Acoustics Nucleus Reference 5.1-Channel Speaker System

Thinking Outside the Box



IN 2004 I reviewed Gallo Acoustics' [Nucleus Reference](#) 3 floorstanders for our sister magazine *The Absolute Sound*, and came away impressed. The Ref 3s later won the magazine's Overall Product of the Year award, in part because their sound was competitive with that of speakers selling for several times their price. Still, I wondered what would happen if Gallo applied the same technologies in a more theater-friendly system—perhaps one with satellite speakers that could be wall

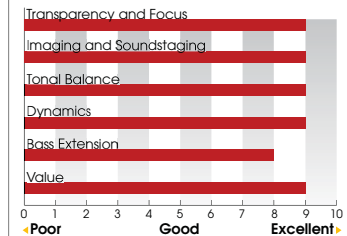


or stand-mounted. Today, Gallo has addressed that question with the Reference AV satellite/subwoofer system that is the subject of this review.

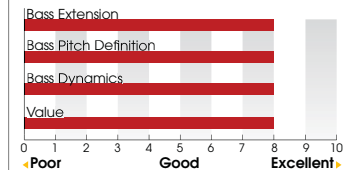
At the heart of the new system are Gallo's futuristic Reference AV satellite and center channel speakers. The Reference AVs look like oblong rectangular metal plates upon whose faces are mounted two pairs of sphere-shaped enclosures that house carbon-fiber, mid-bass drivers. The spheres, in turn, flank a central, cylindrical tweeter made of a curved sheet of piezoelectric film. Curved, open-ended, metal mesh grilles protect the driver arrays. Completing the system are two cylindrical powered subwoofers. Though the Reference AV system seems unorthodox, its design in

Gallo Nucleus Reference AV
(relative to cost-no-object speaker systems)

Reference AV satellites and center channel



TR-2 subwoofers



fact represents a classic case of form following function.

The spherical mid-bass enclosures, for example, offer terrific rigidity and smooth, clean, diffraction-free front surfaces. Similarly, the cylindrical tweeter offers razor-sharp transient response, a whopping 300 degrees of horizontal dispersion, and even functions as its own crossover network. Finally, the compact Reference AVs sound much larger than they appear, thanks to a proprietary internal damping material called

S2. Designer Anthony Gallo says that S2, "alters the spring constant of the air within the speaker enclosures," so that drive units behave much as they would if installed within larger cabinets. In short, these well thought-out speakers result from the kind

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of think-outside-the-box engineering that might have made the late, great Thomas Alva Edison smile.

Sonically, the Reference AV system hits the superfecta of high-end audio, getting four out of four essential sonic characteristics right, all at once. The system delivers detail without sterility, transient response without edginess, spacious soundstaging without loss of focus, and expressive dynamics without sounding overblown. We chose this system to appear in our Dream Theater column, partly because it does so many good things well, but also because it deftly avoids common sonic pitfalls. Some concrete examples to follow will show what I mean.

On singer/songwriter Steve Strauss' *Just Like Love* [Stockfisch, SACD], producer Günter Pauler uses reverb and other studio effects to emphasize various lines and phrases, and though Pauler's approach is subtle, the Reference AVs revealed each of his production touches with laser beam-like precision. Speakers this detailed can often sound cold and clinical, but instead I found the Gallos sounded warm and lifelike. Though the Reference AVs certainly show listeners how recordings have been made, the speakers never lose sight of the bigger goal, which is to make the all-important connection between the listener and the flesh-and-blood musicians producing the music.

Similarly, on the classic Reiner/Chicago recording of Bartók's *Music for Strings, Percussion, and Celesta* [RCA Living

The Last Word



- Balanced, neutral voicing
- Effortless clarity, zero edginess
- Superb imaging
- Subs sound clear and dynamic (but should go lower)
- Innovative design touches galore



- Styling too unorthodox for some
- Center channel stand needs broader vertical tilt adjustments
- Long break-in period

Specifications

Nucleus Reference AV satellite speakers

- Driver complement: Four 4" carbon fiber mid/bass drivers, one semi-cylindrical piezo CDTII tweeter (~300° horizontal dispersion)
- Frequency response: 55Hz–35kHz
- Sensitivity: 88dB (1W/1m)
- Impedance: 8 ohms
- Rec. amplifier power: 150–300Wpc
- Dimensions: 25.1" x 6.2" x 6"
- Weight: 23 lbs.
- roundsound.com

Nucleus Reference AV center channel speaker

(As above, but designed for horizontal placement.)

TR-2 powered subwoofer

(two used in this system)

- Driver complement: One 10" long-throw woofer
- Integrated amplifier power: 250 watts
- Dimensions: 10.7" x 12" x 13.5"
- Weight: 36 lbs.
- System Price: \$8400 (four Gallo Reference AVs at \$1200/each; one Gallo Reference AV center channel at \$1200; one AV center and four AV tabletop stands at \$200/each; two TR-2 subwoofers at \$700 each).

Stereo, SACD] the Gallos did a wonderful job with the mysterious, otherworldly sound of the percussion instruments heard in the piece's "Adagio" movement. What struck me was the way the Gallos simultaneously revealed each instrument's position onstage, while conjuring up an almost blueprint-precise image of the concert hall in my mind's eye. If we discussed these speakers in literary terms, we might say they address both text and context at the same time.

Beyond serving up sonic delicacy, this system can also flex its muscles to do justice to blockbuster action films, provided users bring plenty of clean amplifier power to the party. I put on the spectacular gunfight sequence from *Open Range* and cranked the Reference AVs up just to see what would happen. The answer was that the little speakers reproduced gunshots at stupendous levels, and without apparent strain, though my 200Wpc reference AVR eventually showed signs that it had reached its output limits.

Despite their modest size, these speakers can churn out gutsy, large-scale dynamics on demand.

My only minor disappointment involved the system's dual TR-2 powered subwoofers, which offer good bass dynamics and pitch definition, but are not the last word in low frequency extension. Though offering good value for money, the TR-2s are really not in the same league as the Reference AVs. I would also caution that the Reference AVs and TR-2s need 50–100 hours of break-in before they finally loosen up and sound their best.

Gallo's unconventional Reference AV system looks small, sounds powerful, and delivers sonic sophistication that will turn many conventional box speakers green with envy. If that's not the stuff that Dream Theaters are made of, what is? **TPV**

