

Four Easy Speakers

Infinity Primus 360, Canton Ergo 702 DC, Dynaudio Audience 52SE, Bohlender Graebener Radia Z

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It's an old saw, but everything *does* make a difference in audio. From the quality of your home's incoming AC to the contact enhancer you just treated your interconnects with—modifications and upgrades, large or small, can always be heard. But little in audio is more life-changing than swapping out a set of speakers—the very voice of the system. And no other component provokes such divergent, colorful, and often contentious opinions.

This survey examines four pairs of loudspeakers under \$2000 that reflect some of the diversity of the breed. Included are a two-way compact from Dynaudio and a trio of medium floorstanders from Infinity, Bohlender Graebener, and Canton. All are bass-reflex designs, and with the sole exception of BG's ribbon tweeter, each uses tried-and-true cone-woofer and dome-tweeter technology. Since room size is always a prevailing consideration, I can only vouch for their performance in a medium-small listening room, but keep in mind that even the grandest of the grand weren't conceived for Disney Hall. Each speaker had a highly distinctive personality, as well as advantages and disadvantages which this survey will try to explain.

Infinity Primus 360 Brawn On A Budget

If the Primus 360 were a contestant on a reality show like *Fear Factor*, it would win hands down. It is highly efficient, meaning a moderately powered amplifier will easily power it to its sonic potential. Its four silver drivers incorporate Metal Matrix Diaphragm (MMD) technology (derived from Infinity's ceramic technology) and are mounted on a narrow aluminized baffle in a tight configuration that situates the 4" midrange driver above the .75" tweeter followed below by dual 6.5" woofers. The tweeter is mounted in a waveguide to improve lateral dispersion and control directivity.

The Primus 360 offers a broad combination of virtues, painted with fairly broad brush strokes. With its dual bass-driver array, this medium-sized tower refused to be intimidated by any piece of music I could throw at it. Its character merges the weight of a multiple driver floorstander with the kind of gut-punch dynamics demanded by Nine Inch Nails or Beethoven's *Ninth*. Bass output extends convincingly into the low 30Hz range. Timbres are accompanied by just enough bloom from the midbass and lower midrange to lend the system

a warm overall signature. The upper midrange is just an orchestra row or two recessed, placing vocalists in all ranges at a slightly laid-back perspective. Jennifer Warnes' voice during "Way Down Deep" [*The Hunter*, Private Music] sounded a bit thinner, cooler, and more isolated in the mix and lacked the throaty richness that I've come to expect from this recording. Faring somewhat better was a bass-baritone like Bryn Terfel [*Sings Favourites*, RCA]. Here the Primus impressed with the full-bodied way it reproduced the chest resonance and weight of this bigger-than-life performer. Treble performance was extended, but fell short of the effortless and grain-free refinement that sends real-life violin solos soaring into the upper reaches of a great hall. The tweeters, though capable, seemed a bit shy of high-frequency air and at times a bit whitish and constricted.

But during David Douglas' percussive "Waltz Boogie" [*Soul On Soul*, RCA], the 360s more than made up for this treble-range deficit with nearly unrestricted dynamics, extending evenly over a broad spectrum of the keyboard. Soundstage width benefited from not toeing the 360s in too much; however, percussion and brass images, though distinct upon the stage, were not as locked-in as I've heard them sound.

If the Primus occasionally lacked a little sophistication and refinement in some velvet-



trimmed orchestral settings, it dug in its heels and got “primal” at rock ‘n’ roll playback levels. Played loud, Peter Gabriel’s churning *tour de force* “Big Time” had such impact and drive that had I opened the windows an impromptu block-party might have ensued. The music also revealed some evidence of cabinet resonances and a chuff of port noise. The ka-thump of a kick drum struggled to maintain its identity with a bass guitar popping and pulsing to the same beat. At these elevated volumes the soundstage couldn’t maintain focus and images would wander a bit, localizing the speaker enclosures. Occasionally a singer like Sting who sings with a raspy and reedy tonality would tend to center around the midrange and tweeter drivers. Still there was no denying that the ka-thump of the kick drum could rattle the neighbors’ kidneys and that though the traveling bass line popping from Sting’s electric bass might have been more distinct, it couldn’t have been more exhilarating. And did I mention, the Primus 360 was the least expensive speaker in the survey? Amazing.

Bottom Line: More hip-hop than Handel, and one of the best loudspeaker values around.

Canton Ergo 702 DC Can Do From Canton

Founded in 1973, Canton Electronics is the largest manufacturer of speakers in Germany and its best-selling brand. The Ergo 702 DC is the smallest floorstander in the lineup but suitably scaled for small to medium-sized rooms. The updated Ergo line features touches from Canton’s more expensive Karat series, including an aluminum-manganese tweeter with a diaphragm and former fabricated in a single piece to reduce resonances and improve heat dissipation. Improved crossover networks use ICW polypropylene caps. Elegant cabinetry with drop-shouldered hardwood edges adds more than a touch of class.

The Canton’s personality is balanced,

outgoing, pleasantly forward, with a fleshy low end that drops like a stone to a bladder-loosening 30Hz. So good is its low end that, although it doesn’t quite plummet into subwoofer territory, it won’t make you long for a sub, either. The Canton also has a vivid presence range in the upper-mids, and an equally arresting lower-middle/upper-bass range that gives the Ergo 702 a genuine take-charge personality. At virtually all levels it remains unruffled and consistent. This speaker doesn’t have a shy bone in its body and is perhaps the most tonally neutral and balanced in the survey. It is also the most linear with barely a hint of frequency dips or peaks.



The Canton is one of the most versatile speakers, in that it could handle the thrust and urgency of the battle sequence in the *Gladiator* soundtrack [Decca] yet still resolve lower-level details. Even with its prodigious deep bass output, the sonic picture was never clouded with overhang or chuffing artifacts. Although it’s a bass-reflex design, the Ergo has been tuned with impressive delicacy. Even on pop songs like Peter Gabriel’s “Mercy Street” and “Don’t Give Up,” there was an intoxicatingly rich and detailed rush of bass energy that vibrated the floor boards. This was “tuneful” bass at its best—low-frequency detailing that captured the rhythm and bounce and *feel* of the songs, and not merely an ill-defined weight. Without this foundation the opening electric bass figure of “Mercy Street” would sound overly snappy and hard. Gabriel’s vocal would be too exposed. On Holly Cole’s “Train,” the bass extension and output didn’t mask the delicate percussion details of the shakers. The Canton made this song come alive with greater intensity and delicacy.

I did have a small issue with the “cinema soundstage,” however. The 702 DC, a 2.5-way design, centers the tweeter between the woofer (above) and mid-bass driver (below) in a quasi-D’Appolito-style configuration. This setup has been popular in the home-theater market, and sure enough it makes for a nearly ideal listening height when the speaker is positioned alongside a television. However as the Cantons are only 35" high, the relatively low position of the tweeter reduces the soundstage height to a degree that might trouble some audiophiles. It tends to isolate the tweeter somewhat, as well, and put me of a mind to slouch just a little bit. Focused yes, but a bit too controlled for my tastes. And lacking the sense of expansiveness that the real thing usually evokes. Thus during Lyle Lovett’s “Church” the hard-panned vocals of the chorus seemed to congregate at the low-lying tweeter, drawing some attention away from a great performance. I think there might also be a little too much tweeter, but it’s a darn musical-sound-

ing driver that only soft-dome adherents may not entirely cotton to. To its credit, it revealed low-level tactile and textural differences within the most complex performances.

Bottom Line: Elegant all-around performer. Not inexpensive but the Ergo delivers.

Dynaudio Audience 52SE

A Voice of Moderation

The Dynaudio Audience 52SE is like a calming voice of reason over the roar of the crowd. It's the uncommon compact that sits you down, gives you a massage, and

melts away the troubles of the day. It's music reproduction that almost subconsciously strikes a tonally neutral and familiar chord. Frankly it takes guts (as well as scruples) to manufacture a speaker that isn't constantly elbowing for attention like a smarty-pants grade-schooler shouting "pick me, pick me" from the back row in home room.

As the "special edition" moniker suggests, Dynaudio has hot-rodged the Audience with performance updates plucked from the Contour series. These include the multi-coated double-magnet Esotar soft-dome tweeter from the Contour S and the MSP (Magnesium-Silicate-Polymer) mid/bass driver with its prodigious 3" voice coil. In contrast with the "stock" Audience the tweeter is mounted on an aluminum plate in an anti-resonant baffle. With a first-order crossover, a 2.7kHz crossover point, and oversized drivers the Dynaudio has impressive dynamics and more importantly driver integration without a hint of beaminess.

Dynaudio produces speakers that are remarkably consistent in tonality. And predictably the wider middle range of the Audience SE presents an essentially neutral sound that leans slightly to the darker side of the spectrum. Its energy is a smidge laid-back and music seems to settle into a comfortable niche in the soundstage. The transition between the mid-bass and tweeter drivers is smooth with good presence in the critical crossover region. The mid-to-upper treble itself is airy and extended but does seem to glaze over slightly beyond the sibilance range. The Dynaudio is an extreme over-achiever in the lower frequencies. Bass response is full, with complexity and punch. On a song like Peter Gabriel's "Big Time," which doubles the kick drum with a rib-cracking electric bass, the little Dyno was unstressed by the assault. But along with the muscle it also showed appealing finesse, reproducing low-level piano harmonics and the radiating resonance of the soundboard. An excellent voice speaker for the likes of a bass-baritone like Bryn Terfel—during "Shenandoah"

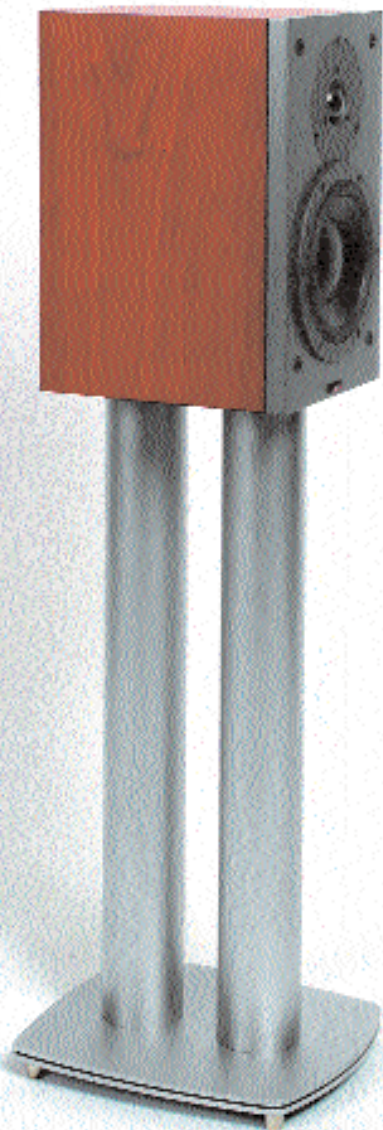
[*Sings Favourites*, RCA] the Audience 52SE struck a near-ideal balance between the artist's articulation and the full-bodied resonance of his diaphragm.

The fiery exchange of "1B" [*Appalachian Journey*, Sony Classical] between cello, violin, and bass viol exposed a minor but consistent coloration illustrative of some midband shyness. Certainly a part of this anomaly might be attributable to port tuning. Nonetheless, in comparison to the expansive grunt and growl of Meyer's bass viol, Mark O'Connor's fiddle and Yo Yo Ma's cello sounded a bit disembodied and thin. The upper midband energy was there, but the cello was a few bricks short of a foundation.

Interestingly this is the only speaker in this group that uses a soft-dome tweeter. And it showed every time I cued up either Clark Terry's trumpet/piano duets [*One On One*, Chesky] or a vocal duet, Peter Gabriel's "Don't Give Up" with Kate Bush. In both instances I found the textural differences of the metal domes less persuasive than the Dynaudio Esotar—and these differences went beyond frequency response. It's analogous to a pair of sopranos sustaining the same high note. Would you be able to tell one from another with your eyes closed? There's no doubt you would.

On large-scale orchestral pieces like the soundtrack to *Gladiator*, the limitations of the diminutive Dyno were perceived not as a wimp-out in volume but rather as an increasing sense of constriction of spatial information. Soundstage depth, not an Audience strength in the first place, was compressed a bit more. The ominous brass section, horns and trombones blazing, trumpets signaling to one another, became a less weighty affair, with transient attack taking on a greater emphasis.

It's uncommon that a small ported speaker should have such a modest port signature but Dynaudio, no stranger to this design, has reduced the huff and chuff to remarkably low levels all the while bolstering the midbass with ample, remarkably uncolored reinforcement.



True, extreme impacts like those of simultaneous bass drum and tympani created some image blurring and the impression of having reached the speaker's low-frequency limits, but this was still remarkable performance under siege.

Bottom Line: The mellow little speaker with the big footprint. Refinement is never out of style.

Bohlender Graebener Radia Z

A Ribbon-Wrapped Romantic

Tall and narrow, in a beautiful cherry veneer, the Radia Z cuts a svelte figure. The two-way tower uses dual 5.25" aluminum cone mid/bass drivers in concert with a Linkwitz-Riley crossover network, but its semi-exotic claim to fame is its Neo3PDR (Progressive Drive and Radiation) planar-diaphragm ribbon-based tweeter. The smoothness and composure of this star-quality tweeter is intoxicating and startling in its transparency, offering sonic excellence that easily surpasses the speaker's modest price. Yet the Radia Z is no one-trick pony.

The tonal balance of the Radia Z leaned toward a warmer, yin-like presentation. Its fulsome, sometimes plummy bass goes down into the lower 40Hz region with conviction, if not with laser-guided precision. The midrange is polished and ever-so-slightly recessed in comparison to the ebullient and speedy tweeter. Soundstaging is good with some added depth on tap.

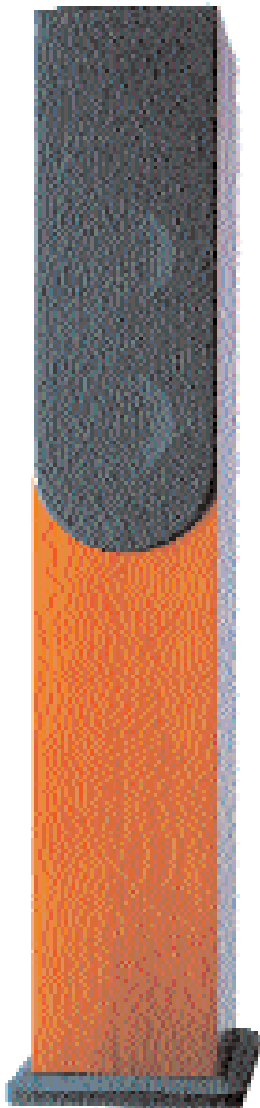


Image height has a pleasingly elevated perspective above the tops of the Radia's enclosures—adding to the speaker's overall sense of openness. Sibilance, the leading-edge zip associated with T's and S's, is more natural than with the vast majority of speakers I've auditioned. The Radia is clean, appropriately pointed, yet non-aggressive. Even on sand-papery voices like Peter Gabriel or Norah Jones, it seems to lightly smooth the coarseness down to a finer level, like going from 320 grade to a near-silky 400 grade polishing paper.

The Radia's bass-reflex design insures some slam in the midbass (which it delivered in abundance), but there is a slight reserve in the upper bass/lower mids that leaves cello and low winds and brass partially unsupported and lower in energy. Although bass extended into the 40Hz range, with useable response below that, the Radia can't match the ultimate extension of the Primus, nor is it as tightly controlled as the Canton. Missing is the telemetry-like precision of the best small floorstanders. During "1B" from *Appalachian Journey*, the extended bass notes that Edgar Meyer holds on his cello grumbled richly, with weight and rosin, but a small amount of port augmentation could be heard. Under pressure midbass grew a bit puffy at times and a little less distinct and defined.

Hybrid speakers like the Radia Z are easy game for criticisms regarding driver discontinuities. Ribbons and dynamic drivers radiate sound differently. Our ears perceive

each transducer's unique dynamic and transient personalities, preventing them from singing in seamless unity. Credit BG with the foresight to keep the mid/bass drivers small, the ribbon long enough, and the steep crossover point high enough to thwart any beaming. Occasionally on intimate material—something highly exposed and revealing like *a cappella*

SPECIFICATIONS

Infinity Primus 360

Drivers: .75" tweeter, 4" midrange, 6.5" woofer (2)
 Frequency Response: 38Hz–20kHz
 Sensitivity: 93dB
 Impedance: 8 ohms
 Dimensions: 39" x 8.25" x 13"
 Weight: 48.5 lbs.

Canton 702 DC

Drivers: 1" tweeter, 7" mid/bass (2)
 Frequency Response: 25Hz–30kHz
 Impedance: 8 ohms
 Sensitivity: 87.5dB
 Dimensions: 8.5" x 35.4" x 11.3"
 Weight: 37.5 lbs.

Dynaudio Audience 52SE

Drivers: 1.25" tweeter, 6.75" mid/bass
 Frequency Response: 45Hz–26kHz
 Sensitivity: 86dB
 Impedance: 4 ohms
 Dimensions: 8" x 13" x 10"
 Weight: 16 lbs.

Bohlender Graebener Radia Z

Drivers: Neo3PDR ribbon, 5.25" aluminum woofer (2)
 Frequency Response: 45Hz–22kHz
 Sensitivity: 88dB
 Impedance: 4 ohms
 Dimensions: 8.7" x 40" x 11.6"
 Weight: 42 lbs.

ASSOCIATED EQUIPMENT


Sota Cosmos Series III turntable; SME V pick-up arm; Shure V15VxMR cartridge; Simaudio Equinox, Sony DVP-9000ES; Magnum Dynalab MD90 Tuner; Plinius 8200 Mk2 integrated amp; Nordost Blue Heaven cabling, Wireworld Silver Electra & Kimber Palladian power cords

singer Laurel Massé—the silky character and speed of the ribbon made the cone driver sound slightly removed, but this was a subtlety that I couldn't key on with any consistency. But then there's Holly Cole's cover of Tom Waits' "Jersey Girl" [*Temptation, Alert*] where the Radia Z communicated upper frequencies with an openness and airiness that make average dome tweeters sound close-fisted and

slower than turtles in a snowstorm.

Orchestral incendiaries like "The Battle" from *Gladiator* tested the Radia Z, which sometimes smudged up the soundstage, showing a reserve in dynamics and a loss of energy and detail at the low end. At the same time, the ribbon tweeter seemed to get stronger and open up wider as the Radia reached for the next blast of horns and percussion. The

harmonies of the closing vocal, "We Are Free," stood individually in holographic space (Quad-like, if you will), as if I'd never heard them before. And perhaps that's due in part to the magic of ribbon designs—there's more music to hear because there's less speaker to hear.

Bottom Line: More Handel than hip-hop. Ribbon tweeter, a champagne standout in a sparkling wine world. 

MANUFACTURER INFORMATION

INFINITY SYSTEMS

250 Crossways Park Drive
Woodbury, New York 11797
(516) 496-3400
www.infinitysystems.com
Price: \$660/pr.

CANTON ELECTRONICS CORP.

1723 Adams Street N.E.
Minneapolis, Minnesota 55413
(612) 706-9250
www.canton.de
Price: \$1800/pr.

DYNAUDIO NORTH AMERICA

1144 Tower Lane
Bensenville, Illinois 60106
(630) 238-4200
www.dynaudiousa.com
Price: \$1400/pr.

BOHLENDER GRAEBENER

1780 Forrest Way
Carson City, Nevada 89706
(888) 8PLANAR
www.bgcorp.com
Price: \$800/pr.
