

Horning Alkibiades Signature Gold Loudspeakers

The Alkibiades Signature Golds from Horning Hybrid Corner Horn Production are the finest full-range high-sensitivity loudspeakers I have heard under controlled conditions.

This 77" tall, 198-pound, three-way, 99 dB/watt Lowther driver-based system is a snap for any amplifier of at least 8-10 watts rating to drive to room-filling levels. It plays music convincingly even as it serves as an excellent tool for evaluating and exposing colorations in other links in the audio chain.

The Alkibiades is Tommy Horning's top regular-production offering. The one model in his line above it, the Algame Signature, is a built-to-order product that differs from the Alkibiades only in that it has a larger cabinet (and therefore slightly lower bass cut-off). Fashioned from a combination of nicely finished veneered medium-density fiberboard and solid wood (with an integrated molded fiberglass base that is both a support platform and part of the vented cabinet's bass-tuning system), the Alkibiades looks simply built and not particularly special at that. It is, however, the mature product of a dedicated, tenacious, and inventive mind.

Horning first began experimenting with Lowther drivers in the 1970s, when he met Donald Chave, then Chief Technician for Lowther Speaker Company. He listened to Chave's TP1 system, built around the Lowther drivers of the time, and came to believe that the speakers could reproduce the dynamic realism of music much better than any other design. But the Lowther drivers themselves he considered problematic: flawed in tonal balance, with a tendency to ring, and lacking in natural musical warmth. Still, he so liked the dynamic realism he decided to try to overcome their limitations and make a warmer, more natural-sounding system. In virtually every area, he has succeeded.

Not a true horn-loaded speaker in the conventional sense, the Alkibiades makes use of a modified cabinet design Horning developed called Horning Asymmetric Quarterwave Cabinet System (HADQCS).

Horning thinks every other type of bass-loading enclosure system on the market does *not* provide a satisfactory musical experience. Bass-reflex, he says, is a failure because of the cabinet's tuning to one frequency in the bass, thus sacrificing other notes and making unacceptably high levels of coloration at frequencies under 200 Hz. Acoustic suspension he dislikes because of what he cites as its lack of true transient ability and a loss of dynamics and speed of response. Open-baffle he dismisses as having transient control problems and often the need for equalization under 200 Hz for proper extension that induces phase shift, diminishes realistic dynamics, while adding distortion via high cone excursion. He

notes that conventional horn-loading contributes to excellent dynamic realism but, he writes, almost always results in an over-damped, dry bass. So he devised HADQCS, which, like a horn, uses the cabinet to amplify the low frequencies under 200 Hz, while exhibiting more of the sonic characteristics of an open-baffle design (both low-frequency drivers are open to the air on each side, avoiding many of the horn characteristics he dislikes). This arrangement, he thinks, allows each driver to operate optimally, especially in their range of overlap. He notes that his system works by combining the two free-air resonances of the Lowther mid/bass unit and the Beyma woofer, and he tunes the cabinet so that both drivers develop the same amount of internal air pressure. This configuration, he says, allows the Lowther to function at lower frequencies as if it were a much larger driver. And indeed, the 8" driver does seem as unflustered as a 12-15" woofer. He also employs what he calls his Horning "Variator," an adjustable disc fitted in an arrangement that physically resembles a rear-firing port which can be opened or closed to vary part of the airflow out of the cabinet, tuning the bass response to different rooms and positions. The difference between the Variator system and a conventional port in a bass-reflex design is that there is, in addition to the adjustable output from the Variator, airflow in and out of the bottom of the speaker via the specially-shaped fiberglass pedestal, and the system is not tuned to a set frequency.



Unlike other Lowther-based systems, Horning's design eliminates the usual "whizzer" cone (he found it produced several resonances in the audible range). Instead he focuses on the DX-4 unit, an 8-inch paper-cone driver that uses a neodymium magnet assembly with anywhere from a 2.1-2.4 Tesla flux density rating (depending on the model).¹ The DX-4 is paired with a modified Peerless polyethylene cone tweeter that was, according to Horning, first available in 1955, called then the "whistling dome" tweeter. He keeps the diaphragm, but replaces the factory-supplied magnet with a Lowther-manufactured neodymium unit of more than double the power, for improved sensitivity and lateral dispersion. All his current speaker systems make use of a paper-cone Beyma woofer, fitted to the top rear of the cabinet.

Horning uses a single 6-microfarad capacitor to control the tweeter's response, which is eased into the sonic picture at 6 db/octave, starting at 4,000 Hz, no crossover at all for the DX-4 mid/low driver (he allows it to respond from its natural low-frequency capability to its high-frequency acoustic roll-off, beginning about 3,000 Hz), and a simple air-core inductor to gently roll off the 15-inch Beyma woofer above 200 Hz. Horning uses a pair of notch filters (simple coil, capacitor, and resistor networks) to tame a 4-dB peak around 2,500 Hz and another at around 8,000. Horning believes that a conventional crossover would significantly degrade dynamic response, while notch filters control the two problem areas without sonic penalty.

Of course, the real question is how this all translates into the perceived sound of the system. In listening, I am unable to tell where one driver stops and another begins. I can hear, if I stand at the rear of the cabinet, that the woofer runs up in the frequency spectrum much higher than is normal, but from the listening position, there is a seamless integration with the front-firing drivers.

These speakers take a *horribly* long time to break in. I listened for almost three months before the sound relaxed and lost a nasal honk in the midband. Those who know Lowthers tell me this is a normal characteristic of the drivers. Once set, though, these speakers are incredibly open, lucid, and transparent, with a smooth and natural tonal balance. Their life-like dynamic agility and freedom from compression are wonders to hear. They don't possess the last degree of "snap" or that almost instantaneous acceleration/deceleration that top electrostats do, but they are warm and full-sounding, with excellent body on voices and brass instruments.

Their bass characteristics are going to be the subject of debate, I think. While the speakers are capable, in my room, of audible response into the mid-to-low 30s, from the lower mid-bass down they are a bit rolled-off in my preferred location for them, which is about 2.5 feet from the back wall. Horning advocates corner loading for generating the lowest bass, but I prefer the openness and speed of bass response when the speakers are well out in the room. I use a pair of subwoofers of my own design operating below 50 Hz, so I have no complaints on that score, but for those without a sub, a slight compro-

mise is required. Truth to tell, the losses are not severe with the speakers positioned toward the corners, but I am crazy for depth and air, so I opt for my subs and forego a bit of deep bass from the main speakers. Depending on the size of the room, proximity to the side walls is another variable. In my old room, which had a much higher ceiling and was longer and wider than my current room, the speakers were happy about two feet out from the sides and 7-8 feet from the rear wall, with a small toe-in angle that had the tweeters' output "crossing" a bit behind my head. This arrangement created a soundstage that seemed wall-to-wall, with good focus and center-fill. In my current, smaller room (about 12' x 10' x 8' high), the speakers like to be as far apart as possible, with the edges barely a foot from the side walls, only about three feet off the back, and toed-in sharply, so that the tweeters' point of crossing is about a foot in front of my nose. This concentrates the music field between the two speakers, with great density of center-fill information and laudable depth rendition. Stage width is truncated a bit, however, never venturing beyond the outside edges of the speakers. I have not liked a set-up like this before – it was too confining for the music. But in this instance, the speakers, while not able to transcend their boundaries, render a credible facsimile of a recording's original acoustic signature.

Now, if I venture out of two-channel, and install the Chase Technologies' passive-surround decoder (a modern version of David Hafler's old Dynaquad system that extracts ambient information from recordings, whether or not they employ surround encoding) and run it at its lowest volume into ceiling-mounted Lineaem LFX surround speakers in the rear of the room, the soundfield expands laterally to spread beyond the outer edges of the speakers on much material and creates an enhanced ambient effect, with improved depth perception across the board – spectacularly on some recordings, such as Elgar's *Coronation Ode* (British EMI ASD 3345, recorded in the gigantic chapel of King's College, Cambridge).

The Alkibiades really shine in several areas. Below 200 Hz or so, there is an airiness and nimbleness I have not heard in other speakers that allows you to hear more deeply than normal into the foundation of musical lines. It is almost as if notes are deeper and better-defined than they are with other speakers. Listen to the organ pedals at the end of the "Saturn" in Holst's *The Planets* [London CS 6734, with the LA Philharmonic and Zubin Mehta], and you can clearly hear the rush of the air in the pipes as a note begins, the modulation of the note and the sound of the vibrations of the air within the pipes as it is being played, and the release and decay as it is let go. This speaker allows you to pinpoint almost the exact fundamental frequency of pedal points, if such is your pleasure. The highs, though not as

¹ Flux density depends on several parameters, including the type and strength of the magnet assembly, the number of windings in the voice coil, and the width of the magnetic gap. There is no such thing, really, as a "normal" or "standard" flux density rating, so it can be confusing to delve deeply into this. For the purposes of this discussion, it will suffice to say that the drivers under consideration exhibit a particularly high relative figure, and that these stout ratings allow them to exhibit both a high sensitivity and an exceptional degree of control of cone movement.

extended at the very top (above 14-15 kHz) as some speakers regarded as having flat high frequency response, are exceptionally fast, smooth, and natural sounding, and I am never aware of a separate tweeter playing with the rest of the system. The linearity and tonal accuracy of the midband is so high that it can sometimes be a liability, as when an associated component or a recording is less than first-class.

I believe that true tonal faithfulness to real music has been given short-shrift for some time by many speaker designers. Any number of designs have measured well in frequency response, exhibited excellent phase characteristics, performed miracles with square waves, and so on, but still did not sound like actual music. Not so the Alkibiades. While almost ruthlessly revealing of shortcomings elsewhere in the chain, when the system hardware synergy is right and a first-class LP or CD is spinning, the results are tonally magical.

On Billy Holiday's re-mastered *Lady in Satin* [Classic Records LP CS 8048], I feel as if a time machine had planted her and her orchestra in my room and she were singing in front of me, fully fleshed out, with every inflection, breath, and instrument clearly heard and felt. On the Bach-Stokowski: *Symphonic Transcriptions* [Chandos LP ABRD-1005], the lustrous growl and rosy bite of the double basses and cellos is rendered as authentically as I've heard. High violins played *en masse* have a thrilling "rushing" sound that raises goosebumps and makes me grin like a Cheshire cat. The rum-

bling of the bass drum, and its dynamic ebb and flow, is eerily realistic. Vocal music is similarly well served. The creamy tone of the San Francisco Choral Artists on Reference Recording's *Star of Wonder* [RR-21], recorded in the acoustically wonderful Saint Ignatius Church, is convincingly reproduced, with the deep organ pedals in "O Come, All Ye Faithful" cleanly and powerfully resolved. My Mo-Fi UHQ copy of Cat Steven's *Tea for the Tillerman* [MFQR 1-035] sounds so clean and smooth, you suddenly realize that those components you thought were grainy are actually clean – the deficiency was in the disc.

Digital playback, despite often being exposed by the speakers as not as life-like as top analog, can also be compelling. Bob Dylan's *Unplugged* [Columbia CK 67000] boasts some of the most natural-sounding vocals and acoustic guitars I've heard, analog or digital. Through the Hornings, you can, once more, almost imagine he is in the room with you. And big orchestral works are not shortchanged: Hans Zimmer's two masterworks of potboiler music, *The Thin Red Line* [BMG 09026-63382-2] and *Gladiator* [Decca/Universal 289 467 094-2] are reproduced with both nuance and full bombastic glory, as the music demands, with naturally authentic instrumental colors and dynamic footprints. This is also an excellent speaker for modern "Techno" electronic music, hip-hop, and reggae. The tight, coherent, well-defined bass allows you to hear every inflection and dynamic nuance of real and synth drum kits, as one visiting manufacturer demonstrated (quite loud-

ly and mercilessly) when he stopped by with his unusual collection of records.

The Alkibiades, though quite sensitive, are not at all delicate. Tommy Horning recommends that maximum input power be limited to 30 watts (for safety), which translates to about 114 dB at 1 meter. However, a number of owners use big solid-state amps (Krells and Mark Levinsons), and routinely pump 100 watts or so into the speakers. Horning cited one record-shop owner who plays the speakers during exhibitions in his store at over 120 dB for extended periods! I had no need of such capabilities (my room will not support levels much over 90-95 dB before it begins to sound unpleasant), but it is nice to know that the system is rugged.


Shortcomings? Of course. Because the Lowther drivers operate within a narrow magnetic gap, the slightest misalignment of the voice coil there can lead to clicking and scraping noises on hard transients at certain frequencies, in my system usually around 500-1,000 Hz. This does not damage the speaker, but is disconcerting and aggravating. This problem can be fixed, but it involves removing the driver and physically adjusting it by ear with the aid of a sine wave generator. Most consumers wouldn't want to deal with it. Distributors and dealers are supposed to test the drivers for this anomaly before they are bolted into the speakers, since shipping the cabinets without the Lowther units installed until set-up seems necessary if the drivers are to escape the shipping-induced shocks that can cause voice coil misalignment.

The Alkibiades demand sonically excellent power amps. Any thinness, dryness, or grain is magnified to unacceptable levels. I tried them with a Plinius SA-50 class-A solid-state stereo unit as a "control," and this provided the best bass extension and overall linearity. But for the most liquid mids and crystalline highs, tubes worked best. These speakers are so friendly to single-ended triode designs that I auditioned several. Best of the bunch were the Art Audio Jota, the Wyetech Labs Topaz 572, and the Vaic 52B ST. The Manley Labs Retro 300B and Antique Sound Labs ASL-1006-845 monoblocks also worked well. I could easily detect the strengths and weaknesses of each amplifier, although doing that occasionally spoiled some of the musical fun.

Horning's enclosure is not as inert and "dead" as some other modern designs, and occasionally a note will resonate with the cabinet and stand out slightly. But the entire system is designed and tuned take advantage of the acoustical characteristics of the cabinet, so this, for me, is a small quibble. The sound is affected far more by the full-length panel of cloth-covered MDF used as a grille cover. I removed the cover immediately and left it off – in place, it ruined much of the system's openness and imaging. The cover's recessed mounting flange causes audible diffraction effects, and may be the main reason the soundstage has a hard time developing beyond the speakers' edges. I tamed this to a large extent by attaching a few layers of felt to the baffle around the

tweeters, but the effect is still audible. I believe that if the cabinet were redesigned so that the drivers were flush to the outer surface, this complaint would be history. Also, the speakers sound better when the fronts are elevated by about three-quarters of an inch, which allows the two forward-facing drivers to blend better. Horning does not address this in his literature and provides no spikes.

Occasionally, I become slightly fatigued listening to the speakers, but only at high levels. Almost invariably, however, if I play the best software and am mindful of my room's limitations, this is not a problem. But it is a little depressing that some of my favorite music is rendered unlistenable. The culprit here, I think, is both the strongest and the weakest point of the system: the Lowther driver. While extremely fast, articulate, and dynamically unrestricted, it suffers from a couple of audible resonances (see above). Not on all material, and not all the time, but when musical material excites the driver at the 2.5 kHz resonant area or the cabinet sings along with the odd note, the resulting sounds can be a little ugly, as when Kiri te Kanawa hits her highest, loudest notes in her aria from Hermann's *Citizen Kane* [LP, British RCA RL 42005].

These criticisms, however, take nothing away from my enthusiasm. The Alkibiades' overall coloration is extremely low. In day-to-day use, it is just plain *fun* to listen to. Well-recorded material of any genre has a wonderful lustre and sheen, especially on vocals, strings, and brass; the music is rendered with a solidity that is bewitching and emotionally compelling. The system's natural tonal balance, grainless clarity and effortless power, impressive dynamic life and transparency (especially in the midband), articulate and detailed bass reproduction, combined with a superbly open treble and a particularly high level of coherency and continuousness throughout the audible range combine to make it a winner. With a great number of recordings, the speakers just get out of the way. Their particularly high sensitivity and benign impedance curve make the Alkibiades suitable for almost any amplifier, including all but the very smallest SET designs. At \$16,000, they represent a considerable investment, but I believe them to be a fair value, particularly in light of the fact that they are limited-edition Danish imports. I will not sell my treasured Shahinians, but I could live happily with the Alkibiades Signature Golds. 

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IMPORTER/DISTRIBUTOR INFORMATION

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Source: Distributor loan

Warranty: 5 years

Price: \$15,995/pair

ASSOCIATED EQUIPMENT

EAR 864 and Plinius M-16 preamplifiers; Plinius M-14 and "The Groove" phono preamplifiers; Wyetech Labs Topaz 572, Antique

Sound Labs ASL-1006-845, and Vaic WV52 B ST SET amplifiers; Plinius SA-50 SS amplifier; Siltech and Creative Cable Concepts by Luxor and Custom Power Cord Top Gun and Top Gun HCFI A/C cords, Super power block A/C conditioner; Arcici Suspense rack; VPI HW-19 Mk IV turntable with JMW Memorial arm & Lyra/Scantech Evolve 99 MC cartridge; EAD Theatre Master DAC, JVC XL-Z1010 CD player/transport; Chase Technologies surround decoder with Linaeum LFX surround speakers; Crown Macro Reference amp for subs

MANUFACTURER'S RESPONSE

...Mr. Markwell has placed the speakers' performance in a carefully crafted and well-defined context that should allow the reader to mentally assess their...capabilities with accuracy prior to hearing them. Far too often, reviews are little more than "raves" or "pans" that do not inform the reader as needed to make sensible audition choices.

Among the criticisms mentioned were front-baffle edge-diffraction effects, lack of front baffle slope affecting time coherency, lack of floor spikes, and cabinet resonances. Both Tommy Horning and myself wish to assure potential listeners that these problems will be addressed before retail introduction of these speakers into the US this winter. Voice-coil alignment of the Lowther driver will be done by dealer technicians trained by the distributor at the time of customer delivery...

DAVID BLAIR
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