

EQUIPMENT REPORT



Authority, Subtlety, Grace

Vienna Acoustics Mahler V1.5 Loudspeaker

Guido Corona

At my first encounter with them at Rocky Mountain Audio Fest 2006, I was delightfully surprised by the transparent delicacy, nuanced musicality, harmonic complexity, and agile authority of the Vienna Acoustics Mahler speakers, driven by the Jeff Rowland Design (JRDG) 312 stereo amplifier (see sidebar), and JRDG Capri preamplifier. There commenced a lasting love affair that culminated in the purchase of my own set of Mahlers.

The elegance of the Mahlers is simplicity itself. Standing almost five feet tall, less than nine inches wide, and almost nineteen inches deep, these 120-pound master creations of Vienna's founder Peter Gansterer sport twin 10" side-mounted subwoofers; the towers are raked back gently to optimize the time alignment of the remaining three forward-firing drivers, which are protected by a cloth grille that I removed for critical listening.

While technically the Mahlers are a three-way design, one might almost deem them to be a four-way. The crucial midbass

to lower treble region is served by two, highly modified, 7" Scan Speak drivers using carbon-fiber-filled air-dried paper cones, one positioned above the other. The upper one serves a broad range of six octaves from 70Hz to 4kHz, while the other, with a lower crossover point than the first, is progressively filtered towards the midrange and treble. This slightly unusual design provides a generous cone area for robust, unrestrained overall sound, while giving the Mahlers their hallmark delicacy and focus in the critical midrange. A single hand-coated, silk-dome 1.2" Scan Speak tweeter is located above the two midranges, and is mechanically decoupled from the speaker's enclosure by being mounted in a trough of ferrous-silicone material. The design minimizes sonically harmful mechanical interactions and resonances, allowing the tweeter to reveal the subtlest treble detail. The dual side-mounted 10" honeycomb Ultra Lo Frequency (ULF) subwoofers are made from highly modified Eton honeycomb drivers. According to Sumiko—Vienna

JEFF ROWLAND DESIGN 312 POWER AMPLIFIER: FIRST LOOK

Comfortable with the warm heft of my 20-year old JRDG Model 7M monoblocks, and somewhat familiar with the clean but admittedly polite sound of the original Jeff Rowland 302, I was totally unprepared to fall in love with the robust yet agile grace of Rowland's newest stereo amplifier flagship—the 312. Authoritative rather than merely precise, harmonically textured rather than simply detailed, filigreed in the treble rather than merely extended, the 312 controlled my Vienna Mahlers like an iron fist in a velvet glove.

Weighing a hefty 83 pounds, the 312 is hardly a minimalist device. According to Jeff Rowland, it combines the third-generation ASP 1000 ICEpower conversion modules at its core with custom-engineered input and output circuits, as fundamental building blocks of a sophisticated instrument-grade amplifier. While the original 302 exploited second-generation ICE modules capable of a respectable 360W into 8 ohms, the twin third-generation ASP 1000 modules of the 312 deliver 500W into 8 ohms and 1000W into 4 ohms.

Yet, JRDG has shaved almost 20 pounds off the 312 by adopting a new dual mono design. The single massive transformer and custom switching power supplies of the 302 have been replaced by twin 700W PFC units feeding much lighter dual power transformers that control switching power supplies integrated into the ICEpower modules. The internal operating voltage in the output stages has been raised from 84V to 125V DC, and furnishes a peak current of 45A of balanced power to the 312's patented Cardas output binding posts. New circuitry prevents damage to the amplifier caused by occasional shorting of speaker wires.

According to JRDG, Power Factor Correction (PFC) is the key to the 312's musicality. PFC taps energy out of an inductor circuit during the entire AC cycle—100,000 times per second through a high-speed switch. By using energy out of the wall outlet to charge the 312's power-supply capacitors during most of the AC cycle, it lets the 312 achieve an astonishing power conversion efficiency of almost 98%. PFC also minimizes distortions caused by 120Hz peak surge currents during capacitor charge, and subsequent deleterious back pulses into the AC mains grid.

Jeff Rowland suggests that break-in of ICEpower modules, input transformers, and other electronic components may take a particularly long time. Even after several months, some residual magnetization and electric fields may slowly build up during long overnight idle time, only to ebb gradually once more to a vanishing point during playback. Thus, while the 312 may be kept always operational thanks to its extreme efficiency, audible parameters like its impressive bass control and musicality, its delicate texturing of harmonics and treble, and its remarkably effortless authority are not necessarily realized instantaneously after a full night of idling; yet, in just a couple of hours of playing music, they gradually blossom once more into characteristic magnificence. **GC**

Acoustics' importer in the U.S.—they are 70 times more rigid and 30% lighter than comparable cone material. They extend the frequency response from 70Hz down to 22Hz. Vienna Acoustics sources speaker drivers in identical batches of 3000 units. With each fresh batch, engineers painstakingly recalibrate the dual-board crossover network of the Mahlers—a first-order slope that incorporates MKP capacitors, 0.7% tolerance inductors, and 2% tolerance inductance-free metal-film resistors.

The back panel reveals two round bass-reflex ports toward the top and bottom of the cabinet. The twin 5-way gold and silver alloy binding posts are massive machined units that require 9mm spades, reflecting Peter Gansterer's preference for single wiring. A recessed switch can be selected to boost the bass response by 3dB in overdamped rooms, while a second switch can be activated to depress treble response. Both switches remained at default settings during my evaluation.

An Italian wood joinery near the Swiss border manufactures the furniture-grade cabinets of the Mahlers using advanced technologies. Highly specialized membrane-inflation presses—similar to those employed by British car manufacturer Rolls Royce for the wood trim elements of the Silver Seraph—gently mold sheets of flamed, book-matched palisander rosewood veneer hand selected by Maria Gansterer, and bond them to the braced 1.6"-thick HDF front and rear baffles and to the MDF side panels. Edges are trimmed by hand, culminating in a seamless look.

Sound

Let's start with the Concertgebouw under Bernard Haitink in

SPECS & PRICING

Speaker type: Three-way
bass-reflex floorstander with
integrated subwoofers
Driver complement: One 1.2"
silicone-layered silk dome
tweeter, two 7" ribbed,
carbon-fiber-filled, air-dried
paper-cone midranges, two 10"
honeycomb subwoofers
Frequency response: 22Hz–
25kHz
Impedance: 6 ohms, nominal
Sensitivity: 90dB (1W/1m)
Power handling: 30–200W
Dimensions: 8-1/2" x 51-1/4" x
18-1/4"
Weight: 300 lbs./pr.
Finishes: Santos palisander
rosewood or piano black
lacquer
Price: \$12,800/pr.

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Sky interconnects; Cardas
Golden Reference speaker
wires; Shunyata Anaconda
Helix Alpha, Purist Anniversary,
and Cardas Golden Reference
power chords

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WHAT'S IN A MASTERS SETUP?

Before David Ellington of Sumiko and Rod Tomson of Soundings HiFi performed a complete Masters Setup of my Vienna Mahlers V1.5, little did I know that the satisfying musical experience that my speakers already yielded after 500 hours of break-in, and after my own careful setup, did not come close to maximizing their potential. The 8-hour-long session progressively disabused me of any initial skepticism.

Masters is an iterative and repeatable four-part procedure, developed and refined by John Hunter of Sumiko from over 25 years of empirical experience, currently available to all Sumiko dealers, and marketed by Rod Tomson to Soundings HiFi's customers. David and Rod assured me that my Mahlers would eventually work in mutual synergy, while complementing the nodal vagaries of room acoustics. We would create a musical whole by applying ever smaller changes to the speaker's axial and radial positioning.

With subwoofers firing outwards, the Mahlers were pushed against the wider back wall, over 9 feet apart—the right speaker toed towards the side wall and out of sonic focus. Expectedly, Jennifer Warnes and Rob Wasserman in "The Ballad Of The Runaway Horse" (Rounder Records) sounded perfectly lifeless.

Pulled by David, the left speaker commenced its painstaking forward motion, less than half an inch at a time. Suddenly, seven dull inches later, Warnes' voice burst forth brash and glaring. Even slower, the speaker inched forward one more foot. Warnes' voice and Wasserman's bass waxed and waned between brash aggression and dreary dullness. Yet, three highly promising spots were marked, where voice and bass rang full but controlled. Among them, the ideal "anchoring" place was selected—15.25" from the back wall.

After toeing the right speaker back into sonic focus, David inched it forward until, 17 inches later, the bass of both speakers suddenly pressured the room in equal amounts with delightful punchiness. A diffused center image formed, still having an unfocused quality.

The distance between speakers started to increase, while Rod slowly moved the right tower towards the right wall, until we perceived an almost stereoscopic but slightly floating image of vocalist and doublebass. Some residual overpressure in the upper bass still persisted, while the speakers now stood almost 11 feet apart, yielding a vast stage seemingly 18 feet wide. A slight toe adjustment towards my listening position, 12 feet away, focused the images of Warnes and Wasserman almost completely.

The Mahler spikes were finally mounted, and the bass overpressure almost vanished. But what to do with that residual floatiness and with that mid-treble that occasionally still had a tendency to grate? David increased the raking by microscopically gradual adjustments of each frontal spike, until the magic occurred, and I suddenly rediscovered that focused, solid, detailed yet supremely graceful sound which made me fall in love with the Vienna Mahler speakers 18 months before at RMAF. **GC**

its classic 1968 recording of Gustav Mahler's Symphony No. 2 [Philips]. Standing just over 10.5 feet apart, driven by the Rowland 312, the Mahlers generate a soundstage more than 16 feet wide and over 6 feet tall, with a depth that extends well beyond my back wall. Sitting eleven feet in front of the speakers, I experienced a broad sweet listening zone and could move freely within a circle almost 5 feet wide with only moderate softening of the three-dimensional illusion. The Mahlers rendered the lower strings in the opening bars of the First Movement with tuneful authority, with the faintest hint of pleasing warmth, and no trace of bloat. The themes, elaborated by contrasting orchestral sections from the lowest octave up to the high treble, revealed the seamless integration of the Mahlers' drivers. From the tweeter down to the bottom octave of the twin subwoofers the Mahlers yielded a coherent musical presentation without perceivable hot spots or troughs. The Mahlers render the *fff* transients of brass cuivre and percussion with fast, earthy, and full-bodied authority. The high damping factor of the Rowland 312 controlled the Mahler's subwoofers with seamless ease.

The subtly taut tunefulness of the doublebass line in the second movement of Dvorák's Ninth Symphony with Bernstein and the Israel Philharmonic (DGG) confirmed the exquisite bass rendering capabilities of the Mahlers. The bowed bass violi become even tauter under the iron grip of the Nuforce Signature V9 SE monoblocks, but perhaps less nuanced than with the 312.

Astor Pizzola's "Tango Suite" with Yo Yo Ma from *The Soul of Tango* [Sony Classical] highlighted the Mahlers' transparent subtlety. The Mahlers imaged Piazzola's bandoneon, Ma's cello, Agri's violin, as well as bass, piano, and guitars with a crispness and speed of transient attack that exposed their rhythmic interplay. The cello's hiss of rosin, shimmer of harmonics from a textured midrange, and subtle vibrato in the *fuga* were tell-tales of the Mahlers' excellent microdynamics, while their superior resolving power never allowed the ensemble to collapse into a homogenous mass, even in the most congested and most dynamic passages. The treble from violin and piano was extended and crisp, but never brittle, with only the slightest hint of tameness.

The mix of Norah Jones' "Seven Years" from *Come Away With Me* [Blue Note] was both expansive and focused; Jones' pleasingly breathy voice was articulated with detail and the subtlest hint of warmth. She floated clearly front and center of a vast stage, where I could easily focus my attention on individual members of her ensemble.

Conclusion

Conceived ahead of their time during the early 1990s, often driven by electronics capable of only moderate damping factors, the Vienna Acoustics Mahlers garnered an early and unjustified reputation for a warm musicality combined with an over-exuberant bass. Yet, a thorough break-in of over 700 hours, a synergistic matching with superior amplification capable of delivering high current with a high damping factor, as well as careful in-room placement through the Sumiko Masters Setup (see sidebar), reveal the authentic soul of these classics: tuneful authority, broad frequency extension, finely textured and filigreed harmonic resolution, and a superior ability to image and project a solid stage. Over a decade since their introduction, the Mahlers remain more than ever exquisite musical instruments for the music lover. **TAS**