

USHER BE-718 LOUDSPEAKER

Global Triumph

Robert Harley

The new Usher Be-718 stand-mounted loudspeaker is the result of an unusual design collaboration that reflects the increasing globalization of the world's economic, technological, and marketing spheres. Not too long ago, the high-end was dominated by garage-based tinkerers whose products were based on whatever parts were available and whatever design expertise the tinkerer possessed. In today's world, high-end manufacturers are taking an increasingly global view of design, manufacturing, and marketing.

Usher's new Be-718 exemplifies this trend. The loudspeaker was conceived in the U.S. in response to market research that suggested there was a need for a compact, high-quality loudspeaker with luxury build and aesthetics. The drivers and cabinet were designed in Taiwan, with some driver parts sourced from Germany. A British firm contributed to the industrial design and cosmetics. U.S.-based Dr. Joseph D'Appolito, a long-time technical consultant to Usher, tweaked the crossovers. Finally, a Texas-based design-consulting company modifies the production units with upgraded crossover parts and new internal wiring (sourced from JPS Labs). Usher calls this international collaboration the Global Design Project.

The Be-718's fundamental design, however, comes from Usher's founder, Mr. Tsai Lien Shui, who has been designing and manufacturing drivers and loudspeaker systems for more than 30 years. The two-way system employs a 7" woofer/midrange matched to a 1" beryllium dome tweeter mounted in a truncated-pyramid-shaped cabinet. This shape time-aligns the drivers and reduces standing waves inside the cabinet. The enclosure proper is gently rounded on the edges where the top meets the baffle and rear panel, and finished in a gorgeous piano-black lacquer. Thick solid hardwood panels on the sides give the Be-718 a distinctive and upscale look that wouldn't be out of place in the most elegant decor. The enclosure is vented



through a narrow slot in the baffle below the woofer.

Both drivers are designed and built by Usher. The woofer uses a paper cone that was made specifically to match the characteristics of the Be-718's beryllium dome tweeter. The woofer's cone and dust cap are made by a German firm using proprietary materials. The motor structure is based on an Usher-developed technology called Symme-Motion that reportedly keeps the voice coil centered in the magnetic field and ensures that the diaphragm's movement is the same, whether it is pushing or pulling.

The Be-718's big story is the beryllium dome tweeter. As Dick Olsher reports in his technical primer this issue, beryllium is an ideal diaphragm material due to its high strength and low weight. The combination of stiffness and low mass is the holy grail of driver design; the stiffness prevents the diaphragm from flexing and the low mass allows the diaphragm to start and stop very quickly for superior transient

performance. Driving this beryllium dome is an oversized 1.25" voice coil for greater linearity and increased power handling.

Each driver is measured and matched in left-right pairs to within 0.2dB of each other. The final loudspeaker is also measured to ensure that the left and right pairs maintain this 0.2dB matching.

The enclosure is made from 1"-thick MDF. Enclosure resonances are reduced by internal bracing, a lead-lined interior (on U.S. models), and the thick solid-hardwood side panels. The crossover frequency is 2kHz, with third-order electrical and fourth-order acoustic rolloffs. Dual pairs of very-high-quality binding posts are provided for bi-wiring.

The Be-718, nicknamed the "Tiny Dancer" (Usher's Dancer is their full-sized flagship—see Chris Martens' choice in "What Would You Buy?" this issue), is beautifully built and has stunning cosmetics. The overall look and feel is reminiscent of certain expensive European loudspeakers.

USHER BE-718 LOUDSPEAKER

Listening

I listened to the Be-718 in two systems; my reference (see below), as well as one comprising the Simaudio MOON i-7 integrated amplifier and Cambridge Audio 840C CD player, connected with Kimber Hero interconnects and Kimber 4TC speaker cable. The latter system is one more likely to be coupled with the Be-718. A pair of Sound Anchors stands positioned the Be-718's tweeters at an ideal 37" from the floor.

From the outset, it was obvious that the Be-718 was a remarkable performer. Even before I dialed in the placement and installed the spikes, the Be-718 revealed its essential nature. When fully optimized, this little speaker delivered a sound quality and musical involvement that was completely out of proportion to its small size and moderate price.

The Usher BE-718 is simply a great loudspeaker that delivers performance far above what its size and price might suggest

First, the Be-718 gets out of the way of the music in a way that few loudspeakers do. As Jonathan Valin observes in his review this issue of the Focal 1007Be, a well-designed two-way seems to have a fundamentally easier time "disappearing" into the music. I'm not talking only about the way small speakers disappear into the soundstage, but the way an outstanding two-way fosters the impression of less editorial interpretation of the music and a more direct connection between musicians and listener.

The Be-718 has this quality in spades, partly for the reasons Jonathan suggests about two-ways in general, but also because the Be-718 has extremely low levels of coloration. Loudspeaker colorations take many forms, with each

one shaving off just a bit of musical realism. An obvious coloration is tonal—the overall octave-to-octave tonal balance as well as narrower peaks and dips in the frequency response. Here, the Usher Be-718 is a model of neutrality, with just the right top-to-bottom spectral balance, no sense that the speaker is "forward" or "recessed" in overall perspective, and no hint of frequency-response deviations that impose themselves on the music. This quality was manifested as natural and lifelike reproduction of timbre as well as an open quality to the sound.

The Be-718 is also uncolored in other ways. Most noticeably, after the smooth tonal balance, is the speaker's remarkable lack of treble grain, brightness, glare, and the hard metallic sound one often hears from loudspeakers but never from live instruments. The Be-718's treble is infused with detail, energy, life, and sparkle, but simultaneously smooth, inviting, and musical. Violins didn't have that unpleasant shriek in the upper registers; close-miked acoustic guitar fingering was precise and detailed without becoming overbearing; and cymbals contained a full measure of energy without sounding like bursts of white noise. The Be-718's rendering of orchestral string tone on the Keith Johnson recording of Mozart's Piano Concertos Nos. 21 and 24 [Reference Recordings] was nothing short of gorgeous. Moreover, the piano on this recording was free from the glassy hardness on leading-edge transients that often mars the sound of reproduced piano. My listening notes include the word "warm" for the treble, an odd descriptor but one that is appropriate to describe the Be-718's lack of top-end artifacts.

This is the first loudspeaker with a beryllium dome tweeter I've heard in my listening room, and I'm greatly impressed. In fact, the Be-718's treble reminded me of another loudspeaker with an exotic tweeter-dome material, the Avalon Eidolon Diamond, with its ultra-expensive diamond-diaphragm tweeter. Both loudspeakers share the fundamental ability to deliver high resolution of detail and razor-quick transients without sounding etched or bright. The Be-718 didn't quite match the Eidolon in this regard, but the comparison was a lot closer than one would expect given the

more than 10x price differential.

The benefits of this combination of smoothness with resolution to the listening experience cannot be overstated. The resolution reveals more information in the musical signal, and the smoothness encourages the listener to explore that information. A presentation lacking in resolution becomes less musically interesting and compelling. Conversely, a high-resolution sound that's etched, hard, and overlaid by a shiny glare discourages exploration of the musical information because of the unpleasant physical quality of the sound.

The Be-718 was also low in dynamic coloration; this speaker is quick as a whip, reproducing razor-sharp transient leading edges without sounding cold or analytical. I heard a tremendous sense of speed, precision, and clarity that many big speakers don't deliver. Perhaps it's because a small two-way isn't burdened by carrying a big woofer (as Jonathan Valin

Specs & Pricing

Type: Two-way, reflex-loaded loudspeaker
 Driver complement: One 7" woofer, one 1" beryllium dome tweeter
 Impedance: 8 ohms
 Sensitivity: 87dB/1W/1m
 Frequency response: 42Hz–35kHz ±3dB
 Power handling: 200W RMS
 Crossover frequency: 2kHz
 Dimensions: 10.2" x 15.2" x 16.9"
 Weight: 38 pounds each (net)
 Price: \$2695; matching stands: \$400

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ASSOCIATED EQUIPMENT

System #1: Simaudio MOON i-7 integrated amplifier; Cambridge Audio Azuz 840C CD player; Kimber Hero interconnects, Kimber 4TC loudspeaker cable

System #2 (reference): Esoteric P-03/D-03 transport/processor; Basis Audio 2800 Signature turntable with Vector 4 tonearm and Transfiguration Orpheus cartridge; Aesthetix Rhea phono stage; Mark Levinson No.3265 preamplifier; Mark Levinson No.432 power amplifier; MIT MA interconnect and Oracle MA loudspeaker cable; Shunyata Hydra-8 and Hydra-2 power conditioners with Shunyata Anaconda AC cords; custom-built room with Acoustic Room Systems treatment; ASC 16" Full-Round Tube Traps; Billy Bags equipment racks

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suggests), but whatever the reason, the Be-718 was absolutely thrilling on music with dynamic detail. The intricate Latin percussion work on the CD *Arás* by the group Curandero [Silverwave Records] was rendered with a tremendous sense of drive and feeling of the percussionist's musical energy. The Be-718s even did justice to that classic acid test of transient fidelity, *Dafos* (another Keith Johnson recording, not coincidentally), a percussion extravaganza that will test the limits of any system.

As one would expect from a compact two-way, the Be-718's soundstaging was outstanding. Correctly set up, the Be-718 did a disappearing act that made it absolutely impossible to point to the loudspeakers as sound sources. The soundstage was holographic, with fine resolution of low-level spatial detail that contributes to the sense of an expansive and transparent

USHER BE-718 LOUDSPEAKER

space in which instruments exist. The Be-718's resolving power noted earlier, along with a jet-black background and "see-through" clarity, revealed the bloom around instrumental outlines and the decay of reverb tails to create a convincing three-dimensional soundstage. Significantly, the soundstage changed dramatically from recording to recording, suggesting that the Be-718 is simply resolving what's on the disc rather than conjuring up its own sense of space.

Finally, the Be-718's bass was surprisingly deep, tight, and robust for the speaker's size. The bottom end was satisfyingly full and warm, but also clean and articulate. The bottom end had a nice sense of bounce, dynamics, and rhythmic drive. Kick drum cut through with good dynamics and sense of heft, although without the center-of-the-earth solidity at the extreme bottom-end delivered by a floorstanding speaker with more or larger bass drivers. Nonetheless, the Be-718's bass extension exceeded expectations and was musically satisfying. Frankly, considering every else the speaker was

doing right, I tended not to focus on the bass performance.

Conclusion

The Usher Be-718 is a remarkable loudspeaker and a great achievement for its size and price. What makes the Be-718s special is its extremely low levels of tonal, dynamic, textural, and spatial colorations. This reduction in distortions allows the Be-718 to get out of the music's way to a degree that is unprecedented in a loudspeaker of this price, in my experience. But the icing on the cake is the Be-718's unlikely combination of treble resolution with smoothness, a characteristic that fosters an immediate and deep involvement with the music. The Be-718 makes it easy to forget you're listening to a reproduction rather than to music itself.

Despite having loudspeakers waiting in the wings costing, respectively, roughly ten and twenty times the Be-718's price, I was sorry to take them down and pack them up. The Usher Be-718 is simply a great loudspeaker that delivers a level of performance far above what its size and price would suggest. **TAS**

