

Legacy Whisper Loudspeaker

Music for Times that Try the Soul

Anthony H. Cordesman

I began reviewing the Legacy Whisper with a certain bias against the whole project. Not against the speaker, the designer, or manufacturer, but against having to review anything September 11th is the kind of event that makes you want to lose yourself in music, not in the equipment. For me, it also meant a hectic workload, when the usual problems in speaker set-up seemed even less attractive than usual. Then, too, I had just reviewed a wonderfully successful speaker—the Dynaudio Temptation—and I wasn't ready for a step-down. Only a long-standing commitment kept the project on track.

I'm glad it did. The Legacy Whisper is precisely the kind of speaker that does allow you to lose yourself in the music, and it too is a major success. It is an exceptionally clean speaker, not just in detail resolution, but in reproducing dynamics and subtle changes. It has exceptional air and life, with a touch of horn-like energy and excitement. Add its slight warmth—similar to what you hear in the best tube amplifiers—and you have the kind of speaker that lets the music take front stage. You don't have to think about what the Whispers are doing to the music, or compensate, consciously or unconsciously. You just enjoy the result. These are great speakers, especially for troubled times.

Physically, the Whisper is nicely styled, with gentle curves, black grille-cloth, and excellent woodwork,

all combining to give a vaguely Edwardian look. One of my sons insisted that H.G. Wells must have designed them as time machines. Not a bad analogy in some ways, but the Whisper is much better looking than any representation I've seen of Wells' time machine. Its sculptured look should blend smoothly into both modern and classic decors.

The curves and warm woodwork also make these speakers look much smaller than they measure. The Whispers are over five feet tall, 17 inches wide, 13 inches deep, and weigh over 200 pounds. But they look medium-sized and since they are on casters, they're easy to move. The finish comes in several wood veneers, with solid hardwood corner moldings. The basic construction uses rigid interlocking joinery and acoustically inert PVC in the midrange sub-enclosures to avoid honking. Polyester fiberfill provides internal damping.

Time machine or not, a great deal of enclosure, driver, and crossover technology is involved in these speakers. The main designer, Bill Dudleston, states that he had five major design goals: First, to minimize room "noise" that normally masks the ambient information and spatial cues of the recorded event while maximizing channel separation. Second, to minimize low-frequency room resonances that mar



transient detail and color tonal response. Third, to provide sufficient radiating surface to control dispersion and minimize harmonic distortion (THD). Fourth, to maximize dynamic range and efficiency. And finally, to provide a listening spot large enough for multiple listeners.

Once you remove the grille-cloths, you quickly become aware that this is a different type of speaker.

The Whisper consists of a 10-driver, open-air system. The drivers are mounted on two 63-inch baffles of 1.125-inch thickness separated by a distance of 2.75 inches. The baffles lock into a 4-inch-thick pedestal. The ten drivers include four 15-inch woofers that operate up to 300Hz and cross over to an array of 7-inch Kevlar drivers that reduce troublesome midband floor reflections by 11dB. A soft-dome and a horizontally mounted ribbon tweeter control the higher frequencies. A rear-facing 12-inch passive absorber minimizes reflected low-frequency energy.

The drivers are laid out to maintain a radiation angle of less than 90 degrees at all frequencies. This is intended to minimize early reflections and to preserve stereo information. Legacy also says that the steering

accuracy creates a much better soundstage and that “the Whisper is so low in distortion, it measures as clean as some of the amps found driving it.”

The four 15-inch woofers are mounted back to back on the top and bottom of the two open panels. These drivers operate in phase with each other and combine acoustically as a pair of figure eights, one behind the other. The result is a compound null formed at the sides of the enclosure, reducing resonances and room reflections.

Between the two main panels is a box-like enclosure that holds the midrange and upper-frequency drivers, plus a 12-inch passive driver designed to minimize the impact of rear-wall reflections. Dudleston believes that using so many large drivers is the only way to get bass with the kind of dynamic energy and low distortion he wants, and that minimizes room effects.

The layout of the tweeter and midrange drivers on the front panel is equally unusual. In the center are a horizontally mounted 4-inch ribbon tweeter and a 1.25-inch soft-dome midrange. The ribbon is rotated 90 degrees to reduce its horizontal radiation angle to match that of the dome unit when it is housed in its own variable-density foam wave guide. This wave guide is designed to control forward radiation while improving the acoustic impedance match provided by the air and baffle.

The four 7-inch Kevlar Hexacone midrange drivers are spaced so that two are above and two below the tweeter/midrange units. These four drivers are clustered to provide a deep null at the floor and sidewalls. According to Legacy, this unusual quad array “appears at listener position as a single oval driver with an acoustic center coinciding with the treble units and offering a radiating surface area equivalent to a 14-inch driver, but with three times the acceleration factor.” This layout is designed

to create a computer-optimized radiation pattern “to provide a wide horizontal sweet spot without interaction with the sidewalls. Its highly controlled directivity pattern results in gradual, linear, and wideband attenuation as the listener moves off axis; i.e. as the listener moves off-center, the near speaker gently drops in SPL, allowing the far speaker to retain its audibility... The Whisper is the first broadband realization of this differential technique and includes a few proprietary twists in the free air driver design and crossover execution by transforming the impedance.”

Whisper also takes advantage of a sophisticated room algorithm that allows the user to adjust low-frequency performance. The speaker comes with a dedicated electronic processor, with an algorithm especially designed for the speaker’s bass characteristics. This unit provides equalization, allows the user to adjust the damping (Q) of the bass, and is supposed to improve separation at low frequencies. A single control on the front panel adjusts Q and equalization. The user sets the control to produce the best results in a given room and system by ear.

Normally, I am more suspicious than impressed when I read about such radically unusual design features. No one can spend decades reviewing high-end speakers without concluding that most design claims are exaggerated and most radical innovations don’t work—theory is easy, practice is hard. In this case, however, the manufacturer had to move the speakers in on a rush because of my schedule, and I listened before I read about or saw how radically different the Whispers were. By the time I was aware of these technical details, I had had several days of listening and became convinced that this time theory worked well enough to produce an exceptional speaker in practice.

The Legacy Whispers made a fas-

cinating comparison to the Dynaudio Temptations. Both were extremely clean at all volume levels. Both had excellent low-level detail, resolution of transients, and both handled microdynamics, as well as the larger scale dynamic contrasts, with skill on test discs such as *Test Record 3: Dynamics* [Opus 3 CD 8300]. Both did an exceptional job of revealing the differences in front ends, and the strengths and weakness of individual cartridges, SACD players, and digital-to-analog converters. They both reproduced clearly the subtle differences between the SACD playback modes of the Sony XA777ES and SACD777ES and between the SACD and CD playback modes of these players. They also distinguished between SACD recordings made with older or lower quality analog and digital front ends and those recorded on new, high-quality equipment. An SACD like *The Steve Davis Project* [JMC SACD-04] will illustrate the superior sound quality immediately.

At the same time, I was struck by the fact that the Dynaudio Temptations handled all of these sound characteristics like the best solid-state amplifiers, such as my reference Pass X600s, while the Legacy Whispers had many of the characteristics of the best tube amplifiers, say, a cross between Audio Research and Conrad-Johnson.

I know this analogy is simile to a mixed metaphor (I’ve wanted to slip that play on words into an article ever since freshman English), but it also helps describe differences in timbre and bass performance. The Dynaudio Temptations produced in my listening room more high-frequency energy than did the Legacy Whispers. To my ear, the Temptations were more neutral, while the Legacy Whispers were a bit warm. Still, the overall differences were slight enough so that, on both, you could hear the distinctions between a group of musicians playing in a

modern hall versus a warmer, older concert hall. The timbre of the Whispers also complements (or corrects for) the slightly bright character of many modern recordings. For example, the Strads in the L'Archibudelli & Smithsonian Chamber players recording of Mendelssohn-Gade Octets for Strings [Vivarte SK 48 307] are normally slightly bright, but sounded closer to the live performance with the touch of warmth added by the Whispers.

Rather than say that you should regard one speaker's voice as right and the other wrong, though, I suggest that you listen and determine your own preference, just as you would in choosing between excellent transistor and tube amplifiers.

As for the bass, no two speakers with true deep-bass capability ever sound the same in a moderate to moderately large listening room. Regardless of design, there are always room interactions. The Dynaudio Temptations did, however, go distinctly deeper than the Legacy Whispers and they sounded slightly faster and better controlled. The Whispers, however, had an excellent mid-bass and slightly more natural mid- and upper-bass dynamics—a little less control but a bit more energy. I prefer the Temptation's kind of bass, but I listen to too much live music not to recognize that the Whispers' type of bass occurs in many real-world live listening environments. (Listen, for an example, to the bass percussion on Rachmaninoff's Symphonic Dances [Reference Recordings RR-96CD]).

Clearly the Temptations do not need a subwoofer, while the Whispers may benefit from one. Experiments with a Revel B15 sub improved their deep bass. (This came through quite clearly in the opening passages of the André Previn-Wiener Philharmoniker recording of R. Strauss' Also Sprach Zarathustra [Telarc CD-80167].

Again, however, we are talking which set of illusions you prefer, and not a level of coloration that allows you to say one speaker is truth and the other is not. There is also the little matter of price: The Dynaudio Temptations cost more than twice as much as the Legacy Whispers.

As for soundstage, both speakers have truly excellent center-fill, imaging detail, and imaging stability. I am always surprised to find more soundstage detail on familiar recordings, and the Legacy Whispers demonstrated this fact. Both speakers kept the soundstage in realistic perspective, without adding false width or contracting it. Both brought out excellent depth when the recording had it, and both had good three-dimensional imaging. The perspective of the Dynaudio Temptations tended slightly toward middle-front hall, while the Legacy Whispers were a more middle-rear hall. Again, however, move six rows in a live performance, and you will hear similar differences.


Such comments do more to dissect the sound than clearly communicate the strengths of the Whispers. As I said at the beginning, I did not expect to become immersed in the sound. I began listening to the Whispers more as a review project than as an aesthetic experience. Yet what really made the Whispers stand out almost from the start was that the whole was more impressive than the sum of the parts. In spite of myself, I started having fun. As with the Dynaudio Temptations before them, I began working my way through old favorites in my music collection rather than buckling down with standard references.

And by the time I read about the technical rationale behind the Whispers, I no longer really cared. I cannot say that I found these speakers a revolutionary improvement over more conventional models such as the Temptations. Indeed, I've decided to buy the Temptations as a reference. But I was in no hurry to take them out of my system. It was like the dif-

ference between a great Armagnac and a great single-malt whiskey. You enjoy what suits your mood.

In support of the design principles behind the Legacy Whispers, though, let me say that they are extremely easy to set up and place. I tried them in a number of areas in my listening room that are not normally ideal, and got better results than usual. The ability to set the bass level with the electronic processor helps compensate for room problems and for some problems in source material, as well. Taking the processor out did not reveal significant veiling or coloration of the treble and midrange, either.

In summary, then, the Legacy Whispers involve you in the music, and in ways that emphasize the aesthetic values and one's emotional involvement, rather than "analyze" the sound. You have to really listen to them to understand just how involving they are, but if you make the effort, they will overcome your doubts and prejudices as they did mine.

A great speaker, and a pleasure in troubled times. 

SPECS

System type: 10-driver, 4-way
Tweeter: ribbon
Midrange: 1.25" dome
Midwoofer: (4) 7" Kevlar
Woofer: (4) 15"
Frequency response: 22-30kHz +/-2dB
Impedance: 4 ohms
Sensitivity: 94dB 1W/1m (in room)
Recommended amplification: 10-600 watts
Crossover frequencies: 300Hz, 3kHz, 10kHz
Dimensions: 63 x 17 x 13 inches
Weight: 210 lbs. each

MANUFACTURER INFORMATION

Legacy Audio, Inc.

3023 E. Sangamon Avenue

Springfield, Illinois 62702

Phone: (217) 544-3178; 800-283-4644

www.legacy-audio.com

Warranty: 10 Years

Price: \$14,500/pair