

The Infinity 2000 II

BETTER
SOUND

954 BEDFORD ST.
JOHNSTOWN, PA 15901
814-539-3057





Infinity and the 2000 II

To appreciate the 2000 II—or any Infinity speaker, for that matter—one must know the Infinity perfectionist philosophy and the reasons that brought our group comparatively recently into the audio field.

We at Infinity first met in the aerospace industry as physicist/engineers, designing and building sophisticated electronic systems for space and military applications. Music and audio was very much a part of our personal lives.

Over a period of time we realized that many of the exotic theories and technologies we had developed to solve aerospace problems could possibly be applied to consumer audio to eliminate the sonic distortion that, to our ears, had characterized all existing speaker systems.

A long period of experiment followed, during which we discarded all accepted theories of audio reproduction and literally developed a new consumer audio technology. The result was the Servo Statik 1, a very expensive speaker system that was universally acclaimed by audio reviewers and testing labs as being second to none in its purity of sound and lifelike ambience.

The next step was to design and build a line of speakers consistent with reasonable consumer prices, that would—given each price level—utilize as much of this new technology as possible.

The guiding objective was absolute musical accuracy—freedom from the many fashionable forms of distortion that characterize the speaker market today.

The 2000 II epitomizes the Infinity thirst for distortion-free musical accuracy at a less than formidable price. It is an entirely new speaker—the least expensive of the Infinity four-way speakers—and with its open, warm, natural quality and dynamic punch, it has been characterized as having the easy musicality of the Servo Statik 1A.

Four acoustically balanced drivers

The floor-standing 2000 II utilizes four acoustically-balanced drivers. Each is employed in its flattest, most linear area of response, and the transition between speakers is acoustically and electronically smooth.

Unlike any crossover used by any other manufacturer, this device is configured as a first order Butter-

worth filter—time-coherent and capable of accepting and delivering a perfect square wave. There is no phase distortion, no need to correct for aberrations in drivers since the drivers themselves are optimized for speed. The result is a seamless, “oneness” from top to bottom.

The 2000 II features our remarkable Walsh Transmission Line 360° transient-perfect tweeter employing significant new electro-acoustic principles, which are explained in detail below.

Inherent in the 2000 II is the Infinity passion for improvement in both performance and value. As we develop new refinements in our more expensive speakers we apply them, as soon as it is possible and practical, in our less expensive speakers.

To a perfectionist, the 2000 II will represent an incomparable value.

The bass section

Bass tones are reproduced with accuracy and cleanliness by a specially treated 12” woofer in an acoustically damped transmission line enclosure. Its frequency response is linear from 28 Hertz (Hz, or cycles per second) to 800 Hz, for an unusual range of five and one-half octaves. This covers the bass and midbass tones, as well as the fundamentals of instruments and voices in the tenor and contralto ranges.

Our stiffening and damping materials, both on the cone and in the enclosure help achieve bass and midbass transients that are crisp and cleanly defined—in truly startling contrast to the shuddery bass and muddy midbass thunder associated with conventional woofers.

The midrange and midtweeter sections

One of the most outstanding features of the 2000 II is its truly remarkable midrange quality; exceptionally natural and live. We’ve placed special emphasis on midrange quality because most music—particularly symphonic—is within this area. It was important to us that the midrange be low in coloration, and homogenous. So rather than let one driver handle it all we split the midrange and assigned it to two different drivers, each functioning only in the most linear portion of its frequency response.

A new 4” high flux midrange cone driver handles the two octaves

between 800 and 4000 Hz, and a 1" dome midtweeter handles the one-and-a-half octaves between 4000 and 10,000 Hz. These carry the fundamentals of the higher pitched instruments as well as many of the overtones produced by the bass, baritone and tenor instruments and voices.

Separate controls at the rear of the 2000 II allow both the midrange and midtweeter outputs to be adjusted to suit individual room properties.

The 2000 II has a natural, uncolored musical voice, completely devoid of the glassy, sibilant unmusical quality that distorts the high end output and destroys the musicality of many other (even very expensive) currently "fashionable" speakers.

The Walsh tweeter

Our new Walsh tweeter is an improved version of one of Infinity's most stunning achievements. Developed and manufactured by Infinity under license from Ohm Acoustics, Inc., the Walsh tweeter has been acclaimed as a remarkable new development of the Lincoln Walsh Patent No. 3424873. Musically, it provides a "presence," a lifelike ambience and cleanliness of sound never before possible from a speaker.



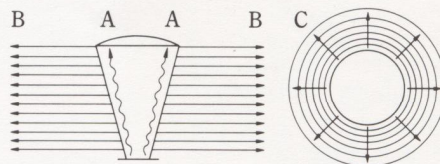
The Walsh tweeter is not a cone (although its shape and gold anodized striated aluminum body have inspired the nickname, "the ice cream cone"). Nor is it an electrostatic, a ribbon, or an Ionic device. Its principles are innovative and not yet found in any textbook or audio encyclopedia.

The Walsh tweeter acts as a virtual pulsating cylinder. It propagates sound velocities up a metallic cone much faster than the speed of sound in air. At the identical instant in time it radiates them into the surrounding air in a 360° pattern.

Because of the faster-than-sound-in-air velocity in the cone—and because a special combination of materials terminates the wave so that no back waves are propagated down the cone, a Wave Transmission Line is created. The result of this ideal and rare phenomenon is a purely coherent source of sound radiation

(analogous to the light produced by a laser beam).

The Walsh tweeter is therefore transient-perfect—a feat no other speaker has ever achieved.



The Walsh tweeter, showing (A) sound velocities, terminated as Wave Transmission Line, (B) transient-perfect sonic radiation at identical instant in time, and (C) top view, showing 360° coherent sound radiation.

What does this mean in musical terms? It means you hear literally perfect instrumental attack and transient peaks—perfect in time, because the audio information is emitted at exactly the same instant in time as the electronic information is introduced. This is true at all points of the device, so that for the first time, 360° coherent, transient-perfect sonic radiation is a reality.

The transient peaks of a driving brass section, the snap of a rhythm guitar, the articulation of harp, strings and percussion can now be heard without the millisecond lag that limits traditional speakers, causing blurred, imprecise audio images. The Walsh Transmission Line tweeter thus for the first time accurately recreates this critical characteristic of a live performance.

The Infinity Walsh is also the only tweeter that gives 360° dispersion without beaming. Other speakers have extremely narrow beaming above 10,000 Hz; when one moves out of their narrow beam, levels drop drastically. Indeed, this narrow beaming has always been considered a "characteristic" of high frequencies—which other manufacturers try to cure with clusters of high frequency drivers aiming their narrow beams in different directions. This doesn't eliminate beaming. It merely blurs transients by adding and overlapping the time-lags of many different drivers.

Our Walsh Wave Transmission Line tweeter could be described as a 360° sonic floodlight—as opposed to a grouping of narrow flashlights.

Frequency response of the Walsh tweeter is beyond 30,000 Hz. Additionally, the voice coil inductance is circuited so that no premature high frequency roll-off (or lessening) occurs. This translates musically into the

reproduction of all of the inaudible but vital overtones and harmonics—the portions of the spectrum that give live instruments and voices their warm presence and unique sense of identity.

With the Walsh Transmission Line tweeter, the textbook has been rewritten.



Exclusive double top

No other speaker (except our Monitor II) comes with two tops. Every 2000 II is packed with both a black cloth top (which continues the look and aesthetic flow of the black cloth front grille, and is acoustically transparent) and a hand-rubbed, oiled walnut top (which matches the enclosure and defines a wrap-around walnut look).

The reason for this bonus is simple. In the design stage of the 2000 II we liked them both. So we decided to give you both.

The walnut top, of course, has a practicality as a pedestal for a favorite art object, or for greenery. (Plants like Infinity speakers, too.) In any case, we trust your aesthetic judgment.

The tops, as well as the front grille, snap-lock into place easily and quickly. You will note also the black vinyl interior of the enclosure—another unneeded but stylistically satisfying detail of the 2000 II and the Monitor II.

The 2000 II

The versatility of the 2000 II is as apparent as its elegance. It beautifully reproduces the most delicate nuance (or the most indelicate non-nuance, as the case may be) of any kind of music, adding no coloration or sonic characteristic of its own.

The 2000 II is for the perfectionist who appreciates value.

It makes evident the Infinity phenomenon: live music without the musicians.

Specifications

Frequency Response:

28 Hz through 28,000 Hz \pm 4 dB

Drivers:

Four, assigned as follows:

12" woofer 28 to 800 Hz

4" cone midrange 800 to 4000 Hz

1" dome midtweeter 4000 to 10,000 Hz

Walsh WTL tweeter 10,000

through 28,000 Hz

Controls:

Midrange and midtweeter drivers can be adjusted to suit room acoustics.

Power Capacity:

Minimum 20 Watts per channel RMS.

Maximum suitable for amplifiers rated at 250 Watts per channel RMS continuous.

Walsh Wave Transmission Line Dispersion:

Perfect 360° horizontal by 60° vertical.

Nominal Impedance: 8 ohms

Styling:

Hand-rubbed oiled walnut veneer enclosure. Front black cloth grille snap-locks off to reveal black vinyl-wrapped enclosure interior.

Enclosure Top:

Each speaker comes with two tops: black cloth and oiled walnut veneer. Tops snap-lock into place.

Dimensions:

27 $\frac{3}{4}$ " x 20" x 14" deep.

Weight: 74 lbs.

Warranty:

Transferable. Five years on parts and labor. (See complete warranty statement)

The Infinity integrity of musical reproduction is evident in speakers priced from about \$100 (our POS II) to our Servo Statik 1A at well over \$3000 for the system.



 Infinity

We get you back to what it's all about. Music.