

Infinity

OMEGA SERIES





Omega, the last letter in the Greek alphabet, has become synonymous with the ultimate in development or performance, just as the name Infinity has been synonymous with the ultimate in loudspeaker development and performance for more than thirty years. Therefore, Omega is the fitting name chosen for the latest addition to the highly acclaimed Infinity Reference Series. Joining the ranks of the Epsilon and Sigma, the Infinity Omega incorporates premium-grade crossover components along with the latest refinements of Infinity's exclusive planar drivers and the unique Infinity/Watkins woofer for awe-inspiring speed, transparency and sheer musicality.

#### Patented Planar Drivers

In the Infinity Omega system, the critical upper frequencies are the exclusive domain of a true marvel of modern miniaturization that takes a giant step closer to the theoretical ideal of a perfect acoustical piston:

Infinity's proprietary planar Electro-Magnetic Induction Tweeter and Midrange drive units, EMIT and EMIM. The EMIT diaphragm consists of a light, strong, ultra-stable polyamide film with an aluminum voice coil etched onto its surface.

A low-mass, isothermic damping material is layered between the base film and a



second thinner polyamide film, forming a diaphragm only 46  $\mu\text{m}$  thick, thinner than a single human hair. This diaphragm is driven by a dual array of magnets which generate a powerful, uniform and linear magnetic field. The small diaphragm and high motor strength result in higher efficiency, greatly reduced distortion, increased diaphragm excursion, wide dispersion and outstanding acoustic power response. In addition to the front-mounted EMIT driver, the Infinity Omega utilizes a rear-mounted smaller EMIT-R for an enhanced sense of spaciousness. The sonic advantages of the EMIT high frequency drivers are also present in the EMIM midrange unit, a large-scale implementation of the same patented electro-magnetic induction driver technology. The primary differences lie in the larger surface area and added "thickness" of the diaphragm, still only 110  $\mu\text{m}$  thick.



More important, however, are the similarities: superb transient response, low distortion and stunning musical clarity.

#### Exclusive Watkins Woofer

Infinity engineers found innovative ways of achieving lower distortion, greater frequency response linearity and higher efficiency in cone drivers in order to deliver a level of performance across the audible spectrum to match the amazing Omega planar drivers.

The midbass coupler and unique Watkins woofer employ Butyl rubber surrounds to support Kevlar-reinforced pulp cones manufactured to tight tolerances under extreme heat and pressure. Both drivers utilize flux stabilization devices and extended pole pieces to generate equal magnetic intensity across the voice coil gap, resulting in highly linear cone motion and reduced distortion.

The Infinity/Watkins woofer designed and built especially for the Omega is based on William Watkins' revolutionary, yet simple solution to the problem of bass driver design.

Built on a non-magnetic, die-cast aluminum frame, the Omega woofer employs dual voice coil windings on a heat-resistant fiberglass former. Dual voice coils in conjunction with precisely calculated resonant circuits make possible high output and a smooth, extended low end without sacrificing high efficiency.

The exceptionally wide and linear frequency response, virtually perfect impulse response and high efficiency of the Omega woofer are remarkable achievements, bringing a new ease and power to low frequencies, rare qualities which music lovers will immediately recognize from the concert hall listening experience.

### Structural and Musical Integrity

Careful engineering with special materials and extensive internal bracing makes the Omega trapezoidal enclosure rigid and well-damped, reducing spurious vibration and internal standing waves virtually to the vanishing point. In order to reduce edge reflections which can "smear" the sound, the planar drivers are mounted flush with the front baffle and the speakers' front corners are rounded and tapered.



Separate low and high frequency input terminals permit optional bi-wiring or bi-amping for experimentation with dedicated cables

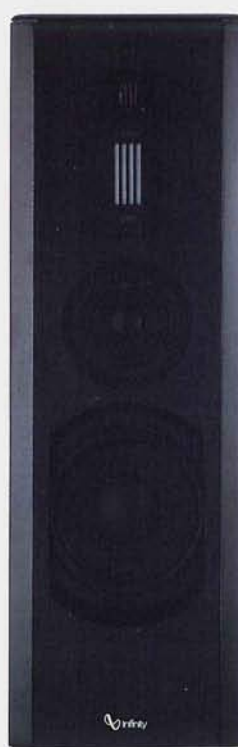
and/or amplifiers. Spikes are provided to couple the speakers to the floor for cleaner, more transparent sound across the entire audio spectrum.

### Room Integration

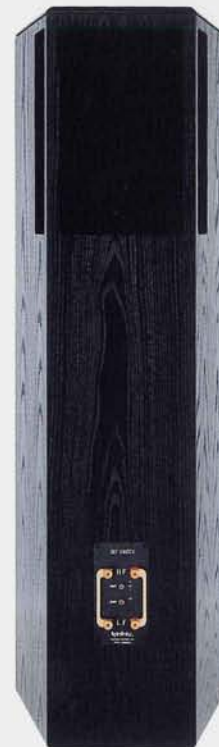
Infinity Omega includes level adjustment switches for the EMIT (+1dB, 0dB, -1dB) and EMIM (0dB, -1dB) drivers, allowing the listener to



Side



Front



Rear

adapt the loudspeakers to the acoustical characteristics of a specific room and to personal listening preferences.

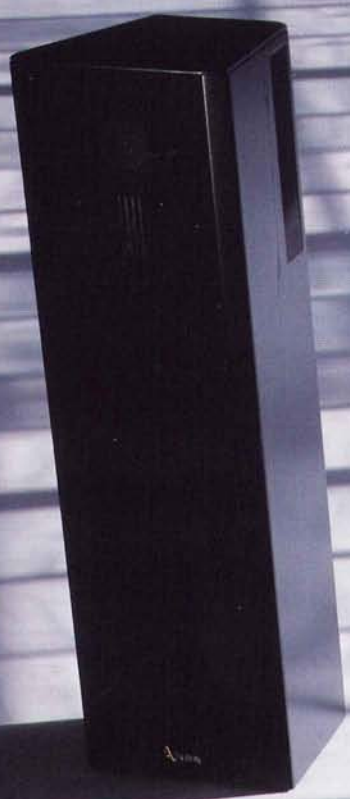
The dipole radiation of the EMIT and EMIM drivers is effectively controlled by the damped inner chamber which is open at the rear and at the sides. This design effectively contains the drivers' backwaves and significantly enhances the flexibility of placement of the Omega, eliminating the need for compromise between the limitations imposed by domestic living spaces and ultimate performance.

### Specifications

- Recommended Power: 100 - 500 Watts RMS
- Frequency Response: 30 Hz - 42 kHz ( $\pm 2$  dB)
- Crossover Frequencies: 180 Hz, 900 Hz, 4 kHz
- Sensitivity: 85 dB (2.83V/1m)
- High Frequency Drivers: EMIT (front), EMIT-R (rear)
- Midrange Driver: EMIM
- Midbass Driver: 6.5"
- Bass Driver: 12" Watkins woofer
- Finish: Black
- Dimensions (HxWxD): 1216 x 390 x 356 mm
- Weight: 121 lb/55 kg



Infinity constantly strives to improve existing products, as well as create new ones. Therefore, the specifications and construction details in this and related Infinity publications are subject to change without notice.



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