

VANDERSTEEN

The Model 1C



THE ALIGNED DYNAMIC DESIGN

The Model One uses the proven Vandersteen Aligned Dynamic Design to optimize the dispersion and transient accuracy of the drivers while maintaining the input signal's time and phase integrity. The drivers, their positioning and their associated minimum baffles were each developed with the aid of FFT (Fast Fourier Transform) computer analysis to minimize diffraction, cone break-up, multi-driver interference and out-of-band phase irregularities. The construction, alignment and positioning of the drivers allow a point-source wave front and maximize the phase coherence of the loudspeaker at the listening position.

The Aligned Dynamic Design is used for the Model One due to its many potential advantages:

- More precise imaging and a wider listening area.
- A greater flexibility of placement options within the listening room and better transient response.
- A high level of genuine transparency and detail typical of planar speakers without the distortions and response variations of multi-directional dynamic loudspeakers.
- Increased efficiency and improved dynamic range.
- A stable impedance, assuring complete compatibility with any amplifier or receiver.

THE COMPONENTS

The active components used in the Model One combine classic strength and durability with innovative design and construction. The woofer uses the same type of cast-metal basket used in costly esoteric loudspeakers. The cast-metal basket's inherent rigidity and superior vibration resistance increase cone movement accuracy and reduce sympathetic resonances for cleaner and more natural sound. A filled polycone is used to insure high stiffness, superior internal dampening and greater neutrality than metal alloy, woven plastic or treated paper cones. The stiff, low weight polycone resists flexing under all drive conditions for lower distortion and increased detail. The Model One's transmission-line port

extends bass response while operating much closer to the ideal than any of the more conventional ported or passive designs.

The metal alloy dome tweeter is a dual chamber design to improve range and linearity. It is critically damped to extend the high frequencies past audibility without the excessive ringing associated with open or underdamped metal dome tweeters. The specific alloy used for the dome was chosen for its superior strength and resistance to break-up compared to common fabric and plastic domes. The quality materials and advanced features of the Model One's tweeter result in smooth and accurate response throughout the audible range.

The crossover of the Model One is a transient-perfect, first-order network designed to preserve the phase integrity of the original sound. It is compensated to allow the drivers to operate in absolute phase with each other while maintaining flat amplitude response. This gives the Model One more precise imaging and a more stable soundstage than conventional two-way speakers using out-of-phase drivers. The crossover's computer grade components, including film capacitors in the signal path, are hand soldered on a double-sided, plated-through PC board for enhanced consistency and reliability.

The baffles holding the drivers on the Model One are as small as possible to eliminate virtually all of the early reflections that affect dynamic speakers with conventional flat or low diffraction baffles. Reducing both early reflections and edge diffraction improves imaging and enhances the openness and transparency of the speaker. The enclosure of the Model One is constructed of MDF, a pressure-formed material that effectively resists vibration and controls cabinet resonances. Broad spectrum, low-Q resonances are controlled so as to cancel rather than become additive.

To insure consistency, each speaker is FFT analyzed for correct response and performance compared to a model reference prior to leaving the factory. The Model One combines superior components, innovative engineering and quality construction for exemplary performance and unparalleled value.

DIMENSIONAL PURITY

Music is pure in its dimensions. Vandersteen loudspeakers are true to the original dimensions of the music. They preserve its carefully crafted proportions and weight. They reveal the power, the authority, the subtlety and the intimacy of the music.

This dimensional purity is the essence of the Model Ones. It allows them to recreate the music's original scope and passion. You hear deeper into the music and better understand the feelings forming its foundation. You become more involved in the music as its structure is revealed with increased clarity and realism.

At Vandersteen Audio, we believe that these qualities are fundamental to your enjoyment of your music. We are pleased to have embodied these qualities in a speaker whose simple, but elegant, physical presence complements the decor of your listening room. We are devoted to continue building distinguished loudspeakers that make a statement about the importance of music in your life.

DRIVERS

- **TWEETER:**
1" critically damped, dual chamber, metal alloy dome
Ferrofluid voice coil cooling
- **WOOFER:**
8" die-cast basket with curvilinear polycone
1 1/2" two-layer voice coil with ventilated aluminum former
40 oz. focused-gap magnet structure

SPECIFICATIONS

Even with advanced test equipment and complex computer analysis, loudspeaker design remains an incomplete science. No measurements currently available can fully convey the sound of a speaker or provide a meaningful comparison between differing designs.

The truth is in the listening.

- **IMPEDANCE:**
6.8 ohms 2 ohms
- **EFFICIENCY:**
90dB with 2.83 volts of pink noise
input at 1 meter on axis.
- **RECOMMENDED AMPLIFICATION:**
20 to 100 watts per channel
- **FREQUENCY RESPONSE:**
38Hz to 22,500Hz +or- 3dB
- **DISPERSION:**
38Hz to 15,800Hz 3dB
at 30 degrees off axis
- **CROSSOVER FREQUENCY:**
2800Hz, 6dB per octave
- **VIDEO APPLICATIONS:**
Main or surround speakers



The Model One is not magnetically shielded and should be positioned at least 10 inches away from a direct view television set.

- **PHYSICAL DIMENSIONS:**
36" high, 12" wide, 10" deep
44# net, 51# gross, each
- **WARRANTY:**
One year, extendable to five years by registering the free optional warranty within 30 days of purchase.

Specifications and design are subject to change without notice due to our ongoing research and development program.

Please contact Vandersteen Audio for complete product information and performance graphs.