

# SP-X11000

**350 WATTS**  
**DUAL 17" WOOFERS**

Sansui's Earthshaker 4-Way, 8-Speaker Floor-Standing System, 350 Watts, 102dB/W/m Featuring Dual 17-Inch Woofer Drive.

*Sansui*

Only hi-fi, everything hi-fi.



# The Earthshaker: Powerful Dual 17-Inch Woofers Drive Separates the Rumbles from the Roars.

Mastering the art of speaker system design is a science. And vice-versa. The importance of technology is never overemphasized at the expense of craftsmanship and a good ear for good musicality at Sansui. We are the "only hi-fi, everything hi-fi" maker, and the gigantic new SP-X11000 speaker system backs up that proud claim with real earthshaking authority.

There are no fewer than 8 individual drivers deployed in the system. Two of them are specially corrugated 17-inch cone woofers for well-damped, never muddy bass reproduction; twin midranges, twin horn tweeters and twin supertweeters contribute presence, texture and clarity over the rest of the frequency spectrum, reaching far into the supersonics. Sound definition in every frequency range is so good you'll never mistake a roar for a rumble or a twitter for a tweet. Or vice-versa. No "bookshelf" system can possibly begin to offer the very-wide-range sound reproduction accuracy and excitement of the massive Sansui SP-X11000.

Learn the details of each of the 8 drivers in this 4-way system, of its advanced crossover network, its elegant cabinetry and how we've increased both its power handling capacity (350 watts) and its extraordinarily high efficiency (102dB/W/m) to offer the finest high fidelity performance possible—from Sansui, where it's *all* hi-fi.

## Twin Jumbo 17-Inch Woofers: Double-rich bass and powerful damping.

Sansui engineers aimed for a balance of four important factors in the design of the identical 17-inch-diameter woofers in the SP-X11000: diaphragm design, voice coil construction, magnetic circuit design and materials and frame dynamics.

The first, diaphragm design, is vital to the sound quality of the system as a whole, of course. We had a special pulp formulation created to our specific needs, and formed it into cones of a special curvature to retain both strength and lightness. Each cone has multi corrugations carefully shaped to provide ideal internal loss and end reflections from the surround.

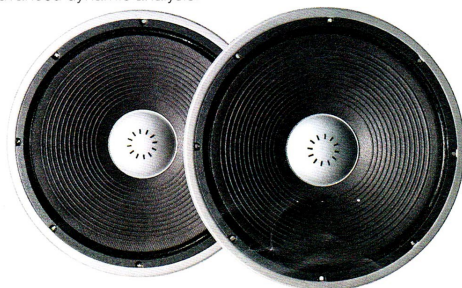
For the voice coil we specified a thermal threshold of 200 degrees Celsius. A heat-resistant synthetic film covering, and heat-resistant coil wire on an aluminum bobbin help achieve this objective: the voice coil is able to dissipate heat quickly, even at high power inputs, and cannot be physically distorted. This, naturally, means an end to sound distortion clear up to the 350-watt maximum input power.

Magnetic circuit performance is powerful enough to control cone excursion effectively. Excessive 3rd harmonic distortion, which is particularly annoying to your ears, is eliminated by (1) a recess at the top of the center pole, and (2) a



device to keep the plate magnetically saturated.

Finally, the frames: spurious vibrations in the physical construction of large woofers often degrade tonal quality to produce a "buzz" instead of a "boomp." We've solved this by designing the woofer frames in the SP-X11000 with the help of advanced dynamic analysis.



## Twin 6½-Inch Midranges: Faithful to fundamentals of vocals.

Many of the same considerations we took in the design of woofers apply here—diaphragm, voice coil and magnetic circuit design in particular. The cone diaphragms, for instance, feature high elasticity and high thermal resistance as the result of using custom-mixed pulp containing special fibers.

The cones retain their shapes under high-amplitude, pulsive inputs, yet are light for still higher efficiency; these qualities ensure excellent signal-to-noise and frequency response performance. Low-end and high-end response (relative to the

midrange frequencies the units are assigned) falls off naturally so that the musical information containing the midrange musical fundamentals is reproduced flat and faithfully. Close-up vocal clarity is just one advantage.

Voice coil construction for the midranges emphasizes low-noise, high-power accuracy so that the cones are permitted freedom of movement in complete linearity with the input. Heat-resisting materials are used throughout.

For the magnetic circuit we use a powerful magnet and a center pole with a special recess. Low-distortion performance in the soft-to-loud amplitudes is assured.



## Twin Horn Tweeters: Powerful magnets for crisp, full-textured highs.

Again, parallel hookup and very special construction are factors which increase efficiency and power-handling parameters. The driver of each horn tweeter in the SP-X11000 uses a powerful magnet and a low-mass phenon-resin diaphragm to guarantee crisp, well-defined high-frequency response. Positioned close to the diaphragm is a precision-machined acoustic

equalizer die-cast of zinc to help maintain phase integrity and extend the high end.

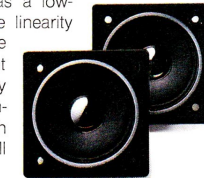
For the horns themselves, coupled to the drivers with every consideration taken for in-system behavior, we've again chosen zinc as the ideal material to avoid resonance. The die-cast horns have sectoral fins to improve dispersion characteristics and make transient response more immediate and lifelike.



## Twin Supertweeters: Dual-drive design helps sweeten the supersonics.

Speakers only dogs can hear? It's a fact that the human ear can rarely detect sounds above 23,000Hz. But the argument for supertweeters is based on the fact that "what you don't hear CAN hurt you" if the supersonic overtones create sonic disturbances (distortion and phase irregularities, for instance) in that part of the frequency spectrum you DO hear.

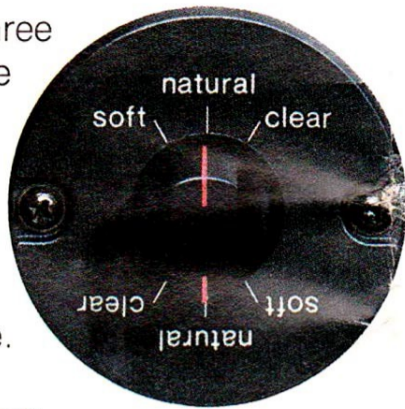
We include a duo of highly accurate supertweeters in each SP-X11000. Each unit has a low-mass diaphragm to improve phase linearity and discourage distortion. Also, the placement of the units on the front baffle has been carefully chosen by Sansui engineers to enhance room-wide dispersion of those super-high sounds you might have thought (till now) you can't hear.



## Level Control & Low-Loss Network: Sansui thinks of everything.

The practical use of the Sansui SP-X11000 4-way, 8-speaker system is enhanced with its level control, working on a crossover network which features low electrical loss and very low distortion over the wide range of its power handling capacity up to 350 watts.

The Level Control has three positions: NATURAL, for rooms whose acoustics need no special compensation; SOFT-1 or SOFT-2 when your room tends to overemphasize the high frequencies. The SOFT positions attenuate mid- and high-frequency response on  $-4\text{dB}$  or  $-8\text{dB/oct.}$  curve.



## Floor-Standing Design: Each separately enclosed unit is driven correctly without interference from the other.

It's not technically difficult to mount as many as eight speaker units on an enclosure system, even if two of them happen to be the jumbo 17-inch woofers. But Sansui has split it into two interdependent units. Why? Because by putting each woofer in its enclosure, mutual interference is avoided and cleaner, fresher sound is assured.

Each unit is the mirror image of the other, except one has the level control. They may not be used separately, but you may stack one atop the other (recesses for the feet are provided on the lower unit).

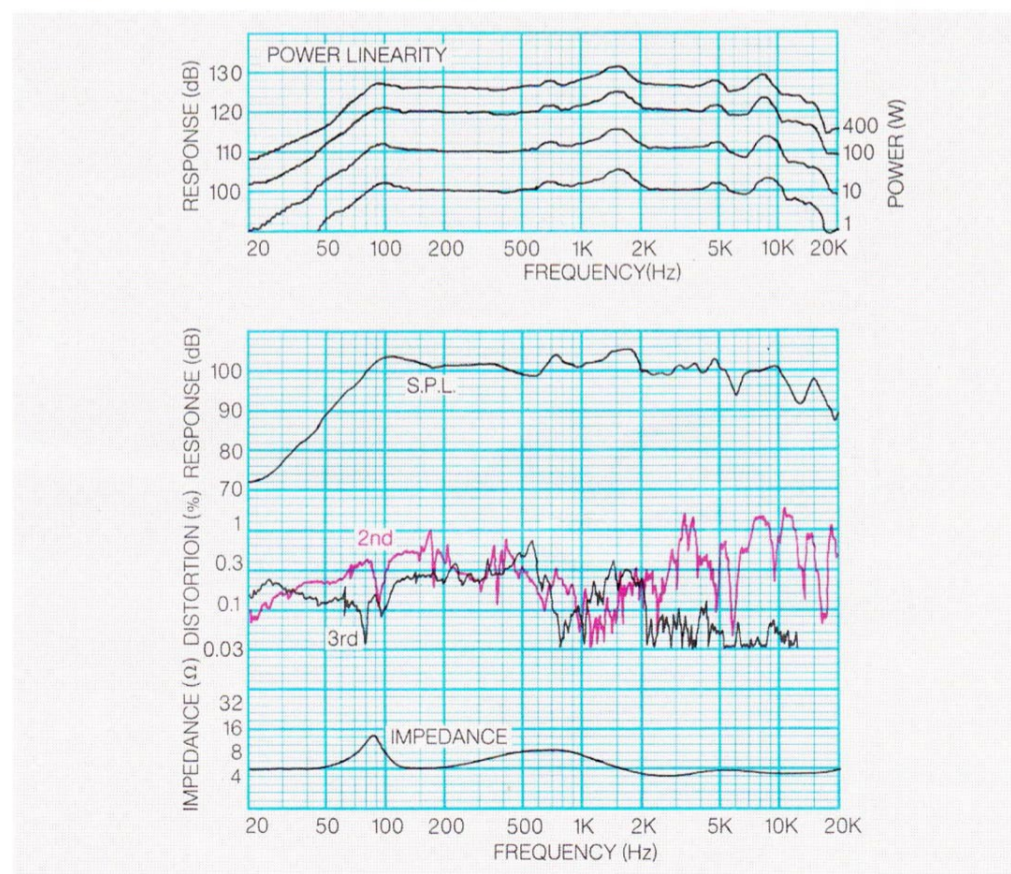
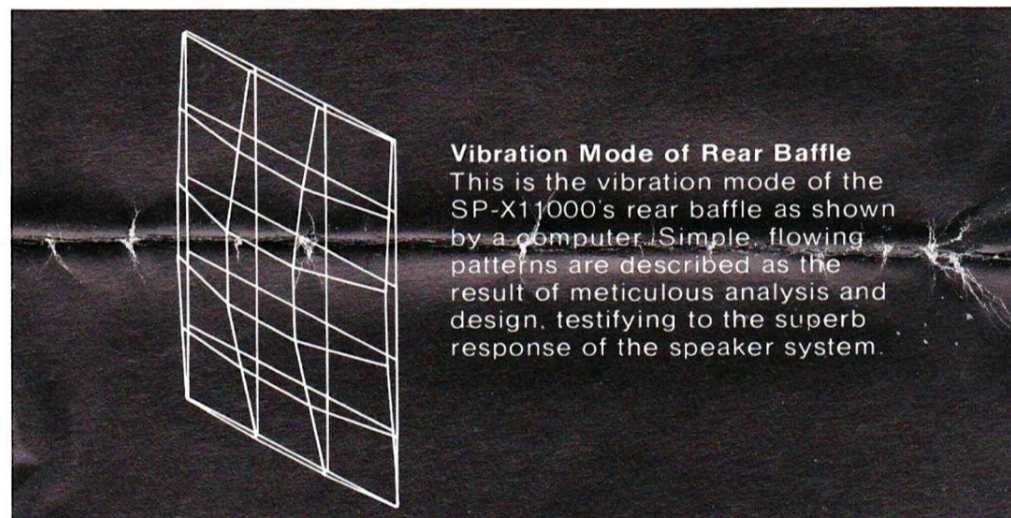
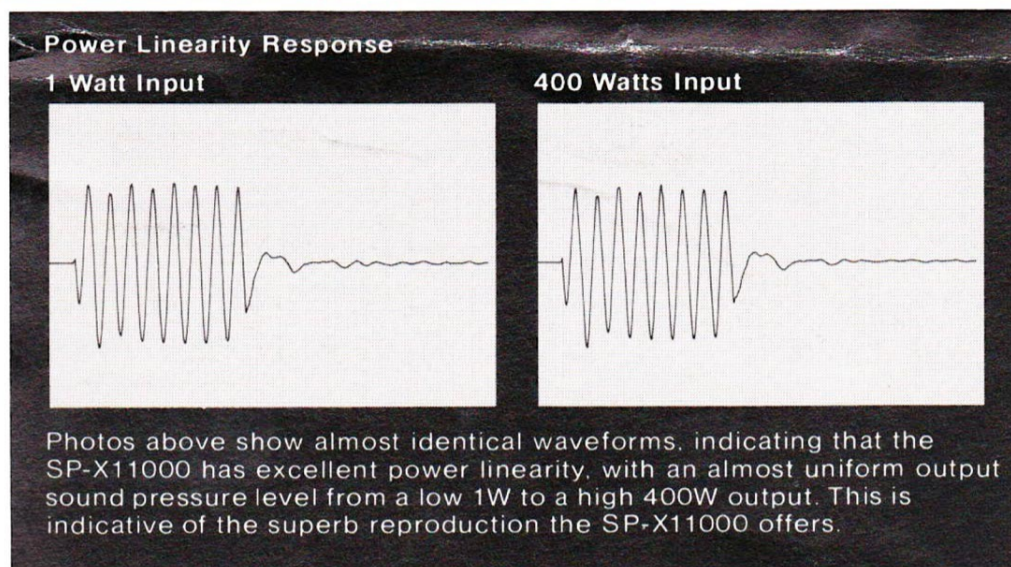
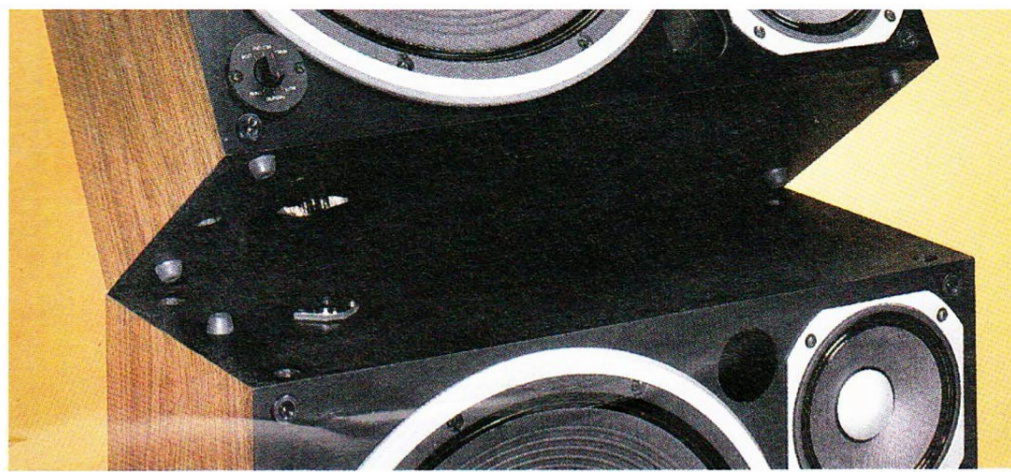
High-density particleboard is used in the enclosures. The units each are damped with two different types of sound absorbent synthetics. And a doughnut-shaped pad of absorbent lines the inside of the acoustically-matched bass-reflex duct (in each unit) to suppress spurious sound in the mids and highs. In a word, the enclosures are free of resonance and solid enough to prevent unwanted coloration of your music.

The real-wood grilles (removable) are in the Kumiko pattern, a traditional touch of luxury exclusive to us and the sure sign that your SP-X11000 systems are from Sansui, where it's *all* hi-fi.

## Specifications

<b>SPEAKERS</b>	
WOOFER	432mm (17") X 2 cone type
MIDRANGE	165mm (6½") X 2 cone type
TWEETER	171mm X 59mm (6⅞" X 2⅝") X 2 horn type
SUPERTWEETER	49mm (1⅞") X 2 cone type
<b>MAXIMUM INPUT POWER</b>	350 watts
<b>IMPEDANCE</b>	8 ohms
<b>SENSITIVITY</b>	102dB/W (JIS at 1m)
<b>FREQUENCY RANGE</b>	20 to 23,000Hz
<b>CROSSOVER NETWORKS</b>	4-way, 18dB/oct., 12dB/oct., 6dB/oct., L-C parallel type
<b>CROSSOVER FREQUENCIES</b>	1,000Hz, 6,000Hz, 10,000Hz
<b>DIMENSIONS</b>	610mm (24") W 968mm (38⅞") H 295mm (11⅝") D
<b>WEIGHT</b>	A Unit 18.6kg (41.0lbs.) Net B Unit 18.1kg (39.9lbs.) Net A Unit 21.0kg (46.3lbs.) Packed B Unit 20.2kg (44.5lbs.) Packed
<b>FINISH</b>	Simulated walnut grain

Design and specifications subject to change without notice for improvements.



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