

SOUND & VISION

From test report on the Boston Acoustics Plasma Series home theater speaker system in the February/March 2005 S&V. © 2004 by Hachette Filipacchi Media, U.S., Inc. All rights reserved.

in the lab

Sensitivity (SPL at 1 meter with 2.8 volts of pink-noise input)

front left/right/center/surround 90 dB

Impedance (minimum/nominal)

front left/right/center/surround 3.7/9 ohm

Bass limits (lowest frequency and maximum

SPL with limit of 10% distortion at 2 meters in a large room)

front left/right/center 80 Hz at 70 dB

surround 80 Hz at 75 dB

subwoofer 25 Hz at 83 dB SPL

98 dB average SPL from 25 to 62 Hz

105 dB maximum SPL at 62 Hz

bandwidth uniformity 94%

All of the curves in the frequency-response graph are weighted to reflect how sound arrives at a listener's ears with normal speaker placement. Because all main-channel speakers in the Boston Acoustics Plasma Series system use identical drivers, the measured response differences are basically caused by the difference between the horizontal and vertical arrays. Each channel's response trailed off below 300 Hz and had a peak at 10 kHz. The horizontally arrayed front left/right and center speakers in the P400 had moderate off-axis lobing at $\pm 30^\circ$, which became more pronounced at wider listening angles. The vertically arrayed P430 surround lacked the lobing at any angle. Because of its larger cabinet and lower tuning of its passive radiator, it also had better low-frequency extension and 5 dB higher output at its bass limit.

The PV1000 subwoofer's bass limits were measured with it set to maximum bandwidth and placed in the optimal corner of a 7,500-

cubic-foot room. In a smaller room users can expect 2 to 3 Hz deeper extension and up to 3 dB higher sound-pressure level (SPL). Although the sub reaches its half-power point (3 dB down from its peak) at 118 Hz, it had usable output (-6 dB) up to 150 Hz. There was no level/crossover control interaction. — Tom Nounsaine

