

# SOUND & VISION

from test report on the Artison Portrait home theater speaker system in the July/August 2004 **S&V**. Copyright © 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 .....	86 dB
center .....	85 dB
surround .....	73 dB

**Impedance** (minimum/nominal)

front left .....	3.8/6 ohms
center .....	6.5/11 ohms
surround .....	3.7/6 ohms

**Bass limits** (lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room)

front left/right .....	80 Hz at 84 dB SPL
center .....	80 Hz at 83 dB SPL
surround .....	100 Hz at 72 dB SPL
subwoofer .....	20 Hz at 78 dB SPL
104 dB average SPL from 25 to 62 Hz	
109 dB maximum SPL at 62 Hz	
Bandwidth uniformity 95%	

All of the response curves in the graph are weighted to reflect how sound arrives at a listener's ears with normal speaker placement. The curves for the LCR front speaker and the LRS surround speaker share the same basic shape, with limited low-frequency extension and an elevation of 4 to 5 dB over the three octaves between 300 Hz and 3 kHz. The phantom center had more extended response in the treble, and the surround had an octave-wide depression centered at 3 kHz. The surround also had significantly lower sensitivity.

With the side-firing tweeter on, front-channel output was similar but 1 dB higher above 1 kHz. The center-channel Presence control increased or decreased response by 3 dB above 10 kHz in the + and - positions, respectively.

The bass limits for the Velodyne DD-12 subwoofer 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). The subwoofer had very good extension

and output. The room-EQ function worked perfectly for the optimal listening position in my room, as shown by the curve in the graph, which was taken at that position. With the crossover set for the Portrait system via downloadable software, the programmed 70-Hz cutoff was spot-on. The sub's antialiasing circuits made it nearly impossible to drive it into audible distortion. — Tom Nouseine

