

B E E T H O V E N

*by Audio Artistry*





## Audio Artistry

### Creating The Ultimate Illusion

In component audio systems, the loudspeaker is the most vital and determining link between the listener and the performance. The ideal loudspeaker is one which is so transparent that it recreates the original sound event in every detail, creating the illusion of a live performance. Capturing the very soul of the music, you will be moved by the beauty of the experience.

With the introduction of the Beethoven Loudspeaker System from Audio Artistry, the elusive illusion of live sound is so convincing that you must experience it yourself to believe it. Our goal with the Beethoven was to build a loudspeaker that virtually eliminates every significant distortion-creating element. With the Beethoven's novel, industry standard-setting design, essentially nothing comes between you and the performance. Not even the distortion that's inherent in every listening room. The experience is visceral; the illusion complete.

### The Composition

The Beethoven Loudspeaker System consists of two Main Panels, two Woofer Units and an active Electronic Equalizer/Crossover for processing the signal from your preamplifier and routing it to the two stereo amplifiers. Regardless of your room's acoustic properties, the four speaker components can be easily positioned for optimal acoustic and visual effect; usually with the Main Panels free-standing in the room and the Woofers near the side walls.

The Woofers are directional, dipolar radiators, which is quite unconventional, but critical in obtaining life-like reproduction of low-frequency tones. Most other loudspeaker systems are omnidirectional at these frequencies and interact strongly with the room, resulting in uneven and unnatural bass reproduction. The Beethoven Woofers, however, excite fewer room modes because

of their directionality and are therefore easier to position optimally.

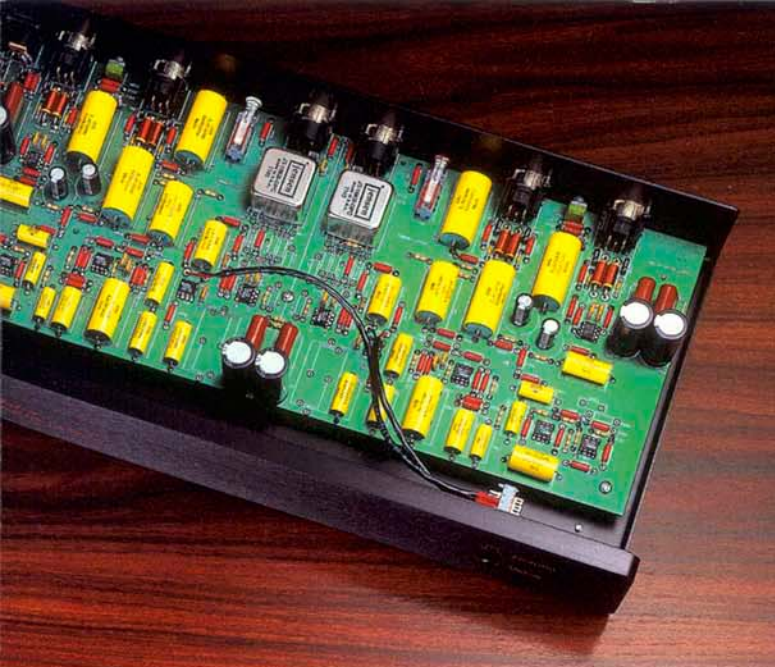
The Main Panels continue the dipolar, directional behavior throughout the important upper bass and mid-frequency range, where the room's reverberant sound field contributes to the perceived timbral balance. The Panels direct the sound in a wide angle towards the listening position, but not at the side walls and ceiling. As a result, the sound coming back from the room is weaker and you hear less of the room and more of the speaker.

The high-frequency notes are carried by a tweeter that blends with the directional characteristics of the other drivers on the Main Panel. From the lowest bass note to the highest instrumental harmonic, the Beethoven has a very uniform acoustic power output from different listening angles. This is why voices and instruments sound so natural, even when listening to the Beethoven from another room. It is the speaker's directional characteristics that are so essential in minimizing the room-induced distortions that detract from the desired listening experience.

From its rhodium-plated, solid copper binding posts, internal heavy gauge litz wiring, low dielectric loss capacitors, air cored inductors in the crossover to its low-distortion drivers, only the highest quality components go into the Beethoven's construction with meticulous attention paid to every detail. Ours is a commitment to quality that you can see and hear.







### **The Performance**

One of the first things you notice when listening to the Beethoven is the transparency and openness of its sound. The speaker's independence from the room certainly contributes to this impression, but the other major contributor is its low non-linear distortion. On musical material, this distortion causes the sound from different instruments to intermodulate with each other and to create completely non-musical notes. Loud passages lose all detail and it is difficult to follow the sonic line of any one specific instrument.

The Beethoven's design reduces this distortion to almost insignificant levels by using multiple drivers, each working with minimal stress to cover different parts of the sonic spectrum. Each Woofer contains four 12-inch drivers; each Main Panel has two 10-inch and two 8-inch drivers for the upper bass and midrange and a tweeter for the highs. Audio Artistry's drivers are selected using proprietary testing methods to ensure freedom from spectral contamination created by non-linear distortion.

You will also notice a complete absence of any "boxiness" to the sound. We are not using boxes, only folded baffles that are open in front and back. There is no contamination of musical passages by resonant radiation from box panels or the sound from inside the box being regurgitated through the speaker cone. More than that, the folded baffle design ensures inefficient acoustic radiation from any mechanical vibrations because of small size and openness of the panels.

The Beethoven's open and detailed sound are also a result of the low level of stored, resonant energy in the drivers, enabling you to hear the decay of sounds, the space between notes and the ambiance of the recording venue.

### **The Finale**

The Beethoven Loudspeaker System produces a soundstage so pure, so transparent, so visceral, you'll swear the performance is live. Every instrument. Every voice. Every sound. Add the Beethoven to your component audio system and discover what it's like to hear, taste, smell and touch the music.

**With the electronic crossover/equalizer's balanced input and output circuitry and heavy interference filtering, combined with the highest possible grade components and circuitry selected for their sonic performance, the Main Panel and Woofer driving signals are optimally routed and shaped for life-like sound.**



Begin painting your world with sound, today. For the location of the Audio Artistry dealer nearest you, call 919-661-0808, fax 919-661-1135 or visit our web site at [www.audioartistry.com](http://www.audioartistry.com).

**Each Beethoven system we build has its own individual personality and is custom named, handsomely displayed on the back side of the Main Panels.**



## Beethoven Specifications

**The Beethoven Loudspeaker System is the latest addition to the Composer Series™ from Audio Artistry. The Dvorak System offers a similar configuration to the Beethoven with separate woofers, panels and electronic crossover/equalizer.**

**The Vivaldi Loudspeaker integrates the woofer and panel into a single, compact, high-performance design. And each of the Composer Series™ Loudspeakers share the same dipole technology and open sound characteristics that paint your world with previously unheard of acoustic energy, rhythm and timbre.**

The Beethoven Loudspeaker System consists of two Main Panels with external passive crossovers, two Woofer Units and an active Crossover/Equalizer. Two stereo amplifiers or four mono blocks are required to drive the Main Panels and the Woofers.

### Complete System

Frequency response	20 Hz to 25 kHz, +/-2.5 dB <sup>1</sup>
Sensitivity	89 dB at 1 m, 2.83 V
Radiation pattern	dipole below 1500 Hz
Room size	300-600 sqft (26-55 sqm)
Listening distance	8-18 ft (2.4-5.4 m)
Placement	2.5 ft (0.75 m) minimum distance to adjacent walls for Main Panel. Woofer along side wall or next to Main Panel.

### Main Panel

Frequency range	100 Hz to 25 kHz 1" soft dome, two 8" Kevlar, two 10" paper drivers each panel. The low frequency range of the Main Panels is automatically extended to 40 Hz when the Woofers are switched off.
Size	55" h x 13.75" w x 6" d (1.40 x 0.35 x 0.15 m)
Weight	85 lbs (39 kg)
Crossover	External, 3-way. Low-Mid-High, 200 Hz and 2 kHz transitions
Impedance	5 ohm nominal, 3.3 ohm min. at 100 Hz
Weight	18 lbs (8.2 kg)
Amplifier power	200 W, solid state, 0.1% distortion or better. Damping factor: 20 or better, including cable.

### Woofer

Frequency range	20 Hz to 100 Hz Four 12" drivers each dipole woofer. The woofer output level is aligned by A-B switching between the Main Panels alone and the Main Panels with Woofers
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Impedance	13 ohm nominal, 11 ohm min.
Size	29" h x 14.75" w x 21.5" d (0.71 x 0.37 x 0.55 m)
Weight	95 lbs (43.1 kg)
Amplifier power	50 W, solid state

### Crossover/Equalizer

Gain	unity, non-inverting
Input	XLR balanced, 20k ohm, active circuitry with 140 kHz lowpass filter for RFI rejection, transformer coupled version optional
Output	XLR balanced, 200 ohm (optional XLR to RCA adapters for input or output, pin 2 hot, pin 1 & 3 connected to RCA shield)
Controls	
Normal/Video:	40 Hz, -6 dB/oct highpass Off/On
Woofer Level:	12 dB range with knob, Offset 0/-12 dB with internal jumpers (J3, J4)
Woofer On:	System crossed over at 100 Hz
Woofer Off:	Main Panel equalized down to 40 Hz
XLR connectors	Pin 2 (+), pin 3 (-), pin 1 (chassis/signal/safety ground), can be disconnected from input connector with internal jumpers (J1, J2)
DIN connector	Pin 2 (+12 Vdc/0.13 A), pin 4 (-12 Vdc/0.13 A), pin 5 & shell (chassis/signal/safety ground)
Size	2.5" h x 17" w x 8" d (0.06 x 0.43 x 0.20 m)
Weight	13 lbs (5.9 kg)
Power supply	External, plug-to-plug, UL/CSA approved
Output	+12 Vdc/0.5 A, -12 Vdc/0.5 A
Weight	5 lbs (2.3 kg)

### Warranty

Main Panels, passive Crossover and Woofer Units are warranted against manufacturing defects for five (5) years from the date of purchase. The Crossover/Equalizer Unit is warranted for two (2) years. Within these periods Audio Artistry will repair the units without charge for parts and labor.

1. Refer to Audio Engineering Society Preprint 3431.



Beethoven woofer, Beethoven main panel, Vivaldi, Dvorak main panel, Dvorak woofer

*Audio Artistry*

painting your world with sound