

# JL Audio Fathom f113 Subwoofer

## Brains, brawn, and bombast.



BY MARK FLEISCHMANN

**“Eventually,”** one of my musical idols once told me in an interview, “everything you said you’d never do, you do. If you’re lucky, you get to shake hands with Arnold Schwarzenegger.” Those words of Robyn Hitchcock came back to me as I wrestled the JL Audio Fathom f113 subwoofer out of its carton. (The Governator himself couldn’t weigh much more.) I’ve told other manufacturers that I just couldn’t see myself working up a thousand-plus-word lather about a sub. What

was it about this one that made me change my mind?

This was a romance that began on the road—another rule broken, but just this once, I swear. JL Audio’s demonstration at CEDIA 2006 was a major highlight of the custom-install trade show. There were many demos, but so few of them were this good. Powerful, controlled bass poured into the darkened cube of the demo room, and I was instantly addicted. Part of the effect may have stemmed from the Fathom’s room-equalization circuit.

The Fathom is among the few subs smart enough to identify, then notch out the largest peak in response at the listening position, the culprit that leads to bloated bass in many real-life rooms. But how would that EQ-controlled monster behave in my room? I had to find out.

### Heavyweight Champion

Weighing 130 pounds, the Fathom f113 is unusually heavy for a sub just 19 inches tall. Its hefty weight reflects the thorough bracing of the 0.75-inch-thick sealed enclosure and the mass of the active components. It’s also the first sub

I’ve ever reviewed with a front-firing 13.5-inch driver—designed and built in Florida. The driver is constructed with a tough cast-aluminum-alloy basket (as opposed to stamped steel) and dual-stacked magnets to propel it into action. A gloss-black finish, with nine coats of polyester, gleamed on the rounded edges of my review sample.

As a subwoofer specialist, JL Audio has patented seven different aspects of their woofer design (and one aspect of their amp design). The former include a W-shaped cone assembly, novel methods of attaching the cone, a new way of attaching the surround to the driver, and various ways of cooling the voice coil. I’ve deliberately soft-focused these descriptions, but you can find more detailed information, including QuickTime videos, at [www.jlaudio.com](http://www.jlaudio.com).

In the simplest terms, you can visualize a subwoofer driver (or any conventional speaker driver) as a movable cone sitting inside a metal basket where a coil of wire energized by your amplifier is bathed in a magnetic field, which remorselessly pushes and pulls the cone back and forth, producing sound. To visualize the Fathom driver, picture an unusually elongated basket with the cone making excursions of up to 4 inches peak to peak. Living, as I do, in a 96-year-old building full of crumbling plaster, I decided to file this under “interesting.” (“When the building

crumbles on you, that means it likes you,” I tell guests.) But I did have fun crawling up to the sub and feeling the driver beat against my fingertips.

On the back are some monstrous heat fins for the massive 2,500-watt-rated Class D amplifier. They are pleasantly rounded, in contrast to the sharp heatsinks on conventional subs, which slash your hands if you make one false move. There are jacks for balanced XLR or unbalanced RCA connections. A master/slave switch lets you chain additional subs. There’s also an isolated/grounded switch. The isolated position generated a loud hum in my system; in the grounded position, the hum went away.

Pop off the grille, and a strip of controls appears along the top edge. JL was merciful to place them on the front panel; it spared me lots of undignified, red-faced squatting. The power, volume, and polarity controls would surprise no one—except for the name of the polarity control, which most subs would call “phase.” JL saves that name for a continuously variable phase control. This gives you the choice of completely inverting the driver’s in/out movements, using the polarity switch, or making more subtle incremental adjustments, using the phase knob. Getting the phase right lets the sub’s output reach your ears at the same time as other higher sounds, helping to make as seamless a transition as possible from sub to satellites.

The low-pass filter has a wide range of adjustment from 30 to 130 hertz. It’s switchable, and I switched it off. I used my receiver’s 80-Hz sub crossover. The slope is adjustable from 12 to 24 decibels. An “e.l.f.” (extreme low frequency) trim knob acts as a single-band equalizer at 25 Hz, allowing for adjustments of +3/–12 dB.

A jack at the far left accepts the microphone for JL’s Automatic Room Optimization (A.R.O.) system. Plug in the mike, set it up at the listening position, and get ready to calibrate. I used a tripod in the listening position, although the JL manual says it’s fine to sit and hold the mike.

The A.R.O. spits out bass test tones, performs an initial measurement, and prompts you to raise or lower the master volume (if needed). Then it spends a minute emitting more tones. There’s nothing above 100 Hz and therefore nothing irritating to listen to—unless the sub’s fearsome ultra-low-frequency response rattles nearby objects. It found a couple of loud, buzzy, previously undiscovered sympathetic resonances in my room.

And then you’re done. JL provides an A.R.O. defeat switch for easy before-and-after comparisons.

In my room, the difference was subtle, except with very-high-volume peaks during action movies. Much of the time, I let the sub play flat to level the playing field with other products I’ve used in the past. There’s also a demo button that plays the test tones without affecting the A.R.O. adjustments, which should provide endless amusement for friends and consternation for household pets.

## Low-Frequency Commentary

*Pulse* is a computer-beasty horror movie with a third-rate script cowritten by Wes Craven. The soundtrack is more interesting for its sound effects than for its humdrum dialogue. The low-frequency-effects channel commented on the action in several interesting ways, from the muffled drumbeat of doom in the opening frames, to

## AT A GLANCE JL AUDIO FATHOM f113 SUBWOOFER

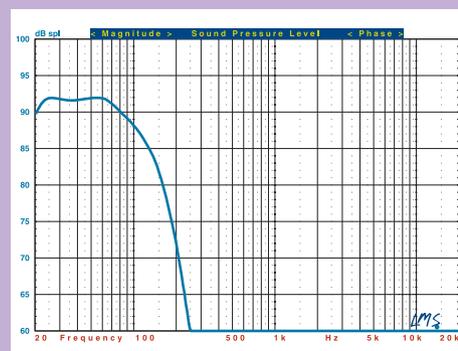


### SUBWOOFER: FATHOM f113

Connections: Line-level, RCA, XLR, or 0.25-inch TRS

These listings are based on the manufacturer’s stated specs; the HT Labs box below indicates the gear’s performance on our test bench.

## HT Labs Measures: JL Audio Fathom f113 Subwoofer



This graph shows the quasi-anechoic (employing close-miking of the woofer) frequency response of the Fathom f113 subwoofer (blue trace).

The Fathom f113’s close-miked response, normalized to the level at 80 hertz, indicates that the lower –3-decibel point is at 18 Hz and the –6-dB point is at 17 Hz. The upper –3-dB point is at 111 Hz with the LP Filter switch set to off. Please note that the response begins to fall off above 60 Hz and therefore is not flat at our reference frequency of 80 Hz. When normalized to the level at 60 Hz, the lower –3-dB point is at 20 Hz, the –6-dB point is at 18 Hz, and the upper –3-dB point is at 93 Hz. —MJP

the specific, sharp thuds that punctuate a hanging, to the low rumble that accompanies an unhappy character's mask of misery, to the low-frequency oscillating heartbeat that fills the finale's haunted server room. By making subtle (and sometimes not-so-subtle) distinctions between these disparate effects, the JL sub served the story well. If you snipped out all the dialogue, the remainder would be an impressively caliginous piece of music—my favorite kind.

Thunder! Earthquake! Stormy seas! *Superman Returns* got off to a roaring start. But the plot eventually replaced these found-in-nature sounds with more amorphous representations of major geological activity and superhuman feats. Here, the JL sub was finicky, rendering the natural sounds naturalistically (whether they were recorded from nature or not) while defocusing the dull, generic action-movie roar that came later.

### Bernstein, Richter, and Biggs

The third movement of Beethoven's Fifth Symphony has some of the most muscular bass-violin passages in classical music, as the Fathom quickly reminded me. The scherzo segues without pause into the finale, the most manic of Beethoven symphony movements. Leonard Bernstein made things even more

interesting by downplaying some of the violin and woodwind parts to give the sawing basses more elbow room in the soundstage. His complete cycle with the New York Philharmonic is a great bargain in Sony Classical's budget-priced wallet box (if you avoid the overpriced import). The 20-bit remastering of the 1963 recording maintains the forward string sound familiar from vinyl recordings of the NYP but stops short of excessive sizzle.

My exploration of Sviatoslav Richter continued with the Russian's live 1987 recording of the Brahms Piano Sonatas Nos. 1 and 2. Normally, I disdain all-digital DDD discs, especially ones from the 1980s, the medieval era of digital recording. But, while the timbre was dark and the soundfield airless—especially for a live recording—Richter's mind-blowing dynamic power and microdynamic subtlety came through. His lofty overview of the piece and his perfect technical mastery of the instrument worked in tandem with the subwoofer's ability to produce sharp attacks and precise pitches with minimal overhang. His phrasing was the pianistic equivalent of great Shakespearean acting, and his rhythmic control was so absolute, it was like returning to infancy and being scooped up by a huge adult. Perhaps Governor Schwarzenegger.

## HIGHLIGHTS

- Years of research and numerous patents produce deep, clean bass
- Automatic Room Optimization compensates for bass-bloating room flaws
- Larger radiating area than that of a typical 12-inch sub

Pipe-organ recordings are a staple of subwoofer reviews. My favorite test material is E. Power Biggs' performance of Bach's *Passacaglia and Fugue in C Minor*, a piece built around a powerful bass part. With the Fathom blasting away, I could just about visualize the organist's feet moving around the pedals. It didn't begin to defocus until it reached the top of its range. At normal volumes, your ears would give up long before the sub.

### The Family Man and the Knight

You can cue up pretty much anything in the Bob Marley discography and get great bass-guitar playing from Aston "Family Man" Barrett, paired with his brother Carlton's mighty kick drum. "Positive Vibration," from the Wailers' *Rastaman Vibration*, did not disappoint. It's a new feeling,

JL AUDIO FATHOM f113 SUBWOOFER					OVERALL RATING
Build Quality	Value	Features	Performance	Ergonomics	 <p>Like a master chocolatier perfecting his fondue fountain, JL Audio brings the zeal of a specialist to the problems of sub design. Unique manufacturing techniques and the always useful advantage of room EQ help this sub earn its four-figure price tag (and then some).</p>
<ul style="list-style-type: none"> <li>→ Has a thick, heavy, well-braced, sealed enclosure</li> <li>→ Driver sits in tough cast-aluminum-alloy basket</li> </ul>	<ul style="list-style-type: none"> <li>→ Design includes numerous patented technologies</li> <li>→ Room equalization is worth paying more for when it works like this</li> </ul>	<ul style="list-style-type: none"> <li>→ Monstrous 2,500-watt amp; unique 13.5-inch driver</li> <li>→ Room EQ tames room-induced bass bloat</li> </ul>	<ul style="list-style-type: none"> <li>→ Deep low-frequency extension</li> <li>→ Clean attack with virtually no overhang</li> <li>→ Dynamically powerful in all situations</li> </ul>	<ul style="list-style-type: none"> <li>→ Controls on the front make for easy tweaks</li> <li>→ Room EQ is a nearly idiot-proof, one-button process</li> </ul>	
98	95	99	97	90	

### General information

Fathom f113 Subwoofer, \$3,200 to \$3,300 → JL Audio, (954) 443-1100, [www.jlaudio.com](http://www.jlaudio.com) → Dealer Locator Code JLL

indeed; a great sub is enough to turn anyone into a fan of Family Man's full, rounded tone and loping beat. This is the beat that has moved millions, and, with a great sub, it gets even better.

If you don't particularly think of Paul McCartney as a bass virtuoso, try imagining *Abbey Road's* "Come Together" without the bass. It leaped out of the Fathom like a dancing ape. Ringo's brilliant drum part—almost all bass drum and tom-toms, with just a little fat snare on the chorus—was equally brilliant and well served by the JL's low-frequency oomph.

Some unusual bass lines came out of Trey Gunn's bass when he played with King Crimson. Originally a bassist who switched to guitar, he went back to bass for the band's 2000-to-'03 lineup—but without using a bass guitar. Instead, he used the Warr touch guitar to tap out the band's bottom-end architecture. The *Level Five*

live EP showed off the Fathom's ability to navigate a wide range of bass pitches without unduly favoring any one. Instead, I heard only Gunn's scrupulous touch, and I continued to hear it even when he played at a low volume.

Danny Thompson plays string bass in Richard Thompson's backing band and more than kept up with the jangling electric guitar on the live *Semi-Detached Mock Tudor* CD. Thompson started "Sibella" at a lower level than the original studio track, giving Danny plenty of space. The bassist added woody sonorities to "Uninhabited Man" and soloed all over "Razor Dance." Here, the JL sub delivered his swinging attacks and steel-fingered modulations with a tight focus that was faithful to both his playing and the instrument's essential character. At no point did it sound like an electric bass, even when he played conventional rock bass lines.

Living with the Fathom was like chatting with the smartest and most agreeable guest at a party full of blowhards. Action movies lost that one-note quality that so often leads to irritation and boredom. The bottom end of pretty much any kind of music took on more definition and shape, even with the lowest string of the lowest instrument. Suddenly relieved of bad-sub stress, I became less stressed. I felt a renewed appreciation for artists and engineers because I could hear more of what they'd intended me to hear. Over time, my expectations changed. I now have a broader frame of reference for what a sub can accomplish. This will not make subsequent reviewing any easier. Couldn't I just stay here forever? 🍷

\*Audio editor Mark Fleischmann is also the author of the annually updated book *Practical Home Theater* ([www.quiet-riverpress.com](http://www.quiet-riverpress.com)).