

Subwoofers

Earthquake CP-8 Subwoofer

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Introduction

Is there a more apropos name for a manufacturer of subwoofers than Earthquake? True, they now make a fine line of speakers and their power amplifiers have won many awards, but their real claim to fame has always been their subs. During my recent trip to CEDIA last fall, I had the pleasure of meeting with Abraham Sahyoun, Earthquake's marketing director. He encouraged me to attempt to lift the Super Nova Subwoofer off its display pedestal...he grinned while I attempted and failed...and then told me that it weighed in excess of 300 pounds.

The point he was making is that Earthquake constructs all their subs with quality, care and performance as their fundamental design goals. Earthquake is serious about bass! He then demonstrated the sub with a 14Hz test tone passing through it. It was barely audible to the human ear, but the cone was moving with a greater than 3 inch excursion that could be felt. As I recall, he explained that a 1 pound weight was applied to the inside of the diaphragm to assist control of the excursion and keep it from flying apart. From my observation, the Super Nova worked just fine while it massaged my insides with its powerful bass. It had me grinning like a Cheshire Cat.

He then introduced to me a new sub that, at that time, was not released to the public; the CP-8. With dimensions measuring at 7" H x 12" W x 25" D, it was certainly one of the most diminutive subs Earthquake has produced. With only an 8 in. driver, what was the point? When he said that the CP stood for "couch potato", I thought that perhaps he was kidding. Such was not the case. This sub is labeled as a "special applications" subwoofer. The sub was designed to literally be placed under or behind your seating area, whether couch, chair or bed. The benefits of such a placement will be revealed in this review.



SPECIFICATIONS
• Design: Powered Subwoofer, Ported Enclosure
• Driver: 8" High Excursion
• Amplifier: 150 Watts RMS, Class D
• MFR: 23 Hz - 180 Hz
• Line-level and Speaker-level Inputs
• 0° - 180° phase shift switch
• 110V/220V Selector
• Dimensions: 7" H x 12" W x 25" D
• Weight: 24.6 Pounds
• MSRP: \$399 USA
• Earthquake Sound

Design

Mr. Sahyoun explained that the CP-8 was designed to have a placement in close proximity to the listener which delivered a few key audible advantages. First, the bass response time would be better realized as compared to the typical sub placement, say in the front of the room by the mains or in the front corner away from your main seating position. Next, the volume of the sub could be turned down more if it were located closer to you. A closer proximity also lessens the chance of sitting in a null at the primary seating position. But the real benefit was the seismic sensation you experienced as you felt the effects of the sub being just a few feet away.



The CP-8 has a 150 watt digital amplifier on board and a long throw 8" driver in a ported enclosure. The driver was remarkably well built and appeared to be in the same general design of the Super Nova. Underneath, there were hi level inputs as well as R/L line level inputs. Volume and phase adjustment were present as well.



Setup

A stereo line level cable with a convenient 90° angle is provided with additional rubber feet should you chose to place the CP-8 on its side or on-end between your couch and wall.

I currently have an in-wall sub and had the opportunity to play them together and individually for comparison. Now mind you, my in-wall cost over 3 times as much as the CP-8, so I did not really expect this to be an "apple to apple" comparison, but I was surprised at the performance of this little upstart. On the first day I auditioned the CP-8, I placed it along the side wall, opposite of my in-wall, to see if it would balance out some bass modes. After some adjusting of the volume and setting my crossover to 80 Hz on my processor (I like to turn my subs crossover point to its highest setting and letting my processor take control), set up was complete. My in-wall sub has a remote which allowed an on/off control comparison from my seat. This feature was a boon as it allowed me to compare both subs together or drop out the in-wall to hear if I was missing sounds on the low end when the CP-8 was allowed center stage. I noticed only a very slight loss of fullness in the bass when the CP-8 played solo.

For the sidewall demo, I placed the CP-8 on its side with the driver facing out into the room. This made tweaking easier as well as allowing direct observe the cone excursion and to hear if the 8 incher was being overly stressed. When driven hard, it never exhibited strain, though the cone was pumping vigorously. I was impressed! No distracting port noises or huffing was noted.

The real fun began when I placed the CP-8 behind my chair, as it is intended. I found myself reaching behind the chair to adjust the volume lower as the bass was really quite over powering.



In Us

Eventually I whipped out my trusty SLP meter and brought the bass output down into line with my Revel F12s. I began my audition with the "Flight of the Phoenix" (Dennis Quaid not Jimmy Stewart). The exhilarating scene where they "gently" set the plane down on those soft, downy sand dunes...was GREAT! Every time the plane smacked into a dune, my chair vibrated forcefully in tune with the impact of the plane. This was my first real experience with what would be considered a tactile transducer and I was having some fun now. I called my wife up into the media room and demoeed the scene for her and she nearly jumped out of the chair. She gave her tacit approval and went back to her book reading downstairs. (Really, she was impressed but didn't want to let on about it.) After a bit more adjusting with the volume, I was able to get the vibrations to only be felt on the really loud and deep bass. This added an exciting sensation during action movies while producing solid, tight bass sound.

With my in-wall engaged or not, the added dimension of tactile bass really added to my enjoyment of movie viewing. Master and Commander was better than I remember at the local cinema. The cannon fusillade in the first 10 minutes of the film were all the more terrifying because of the percussive roar and shaking of my seat. The Dark Knight is another film that uses explosions to, shall we say, advance the plot. Again, the deeper explosions rocked my seat and really pulled me deeper into the movie experience. Overall, every action movie I played was enhanced with the CP-8...but how would all this play out with music? Would this effect become a distraction or an annoyance?

I love classical music and organ music in particular. The CP-8 will play low enough to cover almost all types of music that you would listen to. For general orchestral music, I played Bartok, Copland and Brahms. All three had compositions that had brass and tympani generously sprinkled throughout their works. I found that other than the very lowest or loudest passages, the tactile sensation was rarely experienced. When sensed, it was very brief and non-distracting. Indeed, the slight shaking of the seat during a particularly deep pedal note on the organ felt "right" somehow. Same as what you would actually be subjected to in a seat during a live concert. My initial fear was that it would be too much of a good thing and really become distracting from the actual enjoyment of the music. But when really called upon ("Fanfare for the Common Man" - Copland), the impact of the kettle drum was felt as well as heard. And as it should be. For good old rock-n-roll, I tried Porcupine Tree's Light Bulb Sun, in high resolution surround.



Once more, the bass was satisfying and made its presence felt. Eventually I noticed that when I played my in-wall sub alone, it seemed less engaging then when it was supplemented with the CP-8. I believe that this was a good thing as the sub was working as it was designed to perform.

Conclusions

I am an advocate that two subs are better than one. Not just because two play louder than one, but that two will help smooth out bass modal inaccuracies and provide better quality bass throughout the entire listening area in your room. This certainly was achieved with the CP-8 along with my in-wall. The big advantage of this small sub is the flexibility to place it anywhere within the room where it may be both heard and experienced. Movies were more engaging. Music was more palpable and "live". I see a few other specific usages for the CP-8. It could also be used in a college dorm room, bolster the gaming experience with PS3 or Xbox, adding depth to a living room music system where you want bass to be heard, but not seen, or in my case, enhance the already good HT / music room with a bit more punch.

Weaknesses? Sure. I would not recommend this as a stand alone sub in a moderate to large room. In the Pantheon of subwoofers, the CP-8 is not the "god of thunder". A larger sub may give you more subsonic depth, but at this price point, you could buy two or three and still come out ahead compared to the cost of one 15" modular sub. You would also benefit from smoother bass response through your entire room. Adding the tactile sensation you experience at your seat would be serendipity!

The size and shape allow for easy concealment, and the bass output is nothing short of remarkable. I have a friend who has a HT in his bedroom and this would easily fit under his bed (but he should discuss this with his wife first, I would think). If you are in the market for a tactile transducer, why not have one that actually outputs substantial bass as well? The Earthquake Audio CP-8 left me shaken and satisfied while adding some "fun" to my media enjoyment at a modest cost. Anything that adds to the excitement of a movie experience or enhances the enjoyment of music listening is worth considering, in my opinion. The CP-8 has my seismic approval.