

INTRODUCING SEISMIC™ 110:

ALPHA DOG OF COMPACT INDUSTRIAL DESIGN SUBWOOFERS

Design innovation for maximum performance from a minimal footprint!
A true collaboration between industrial, mechanical, electronic and acoustic design.

“Admit it: The first thing that went through your head when you saw this diminutive little powerhouse was, ‘Ahwww, how cute.’ Right? With its sleek, curvilinear diecast monocoque exterior and its oversized paws tucked neatly underneath, one can’t help but look at this little fellow and wish it had a chin to scratch.

But, as my dad is fond of saying, ‘Frisk this puppy at the wrong time and you’re liable to draw back a nub.’ Despite its adorable looks, the Seismic 110 boasts one bodacious bark—and just as big a bite. In addition to its ultra-low-distortion split-coil driver design, the subwoofer also features an 850-watt RMS Ultra-Class-D amplifier, and the 10-inch woofer cone is capable of two full inches of travel, giving it an unbelievably deep voice for such a petite little frame.

Price: affordable. (Newspapers and chew toys not included.)”

— Dennis Burger, Home Entertainment

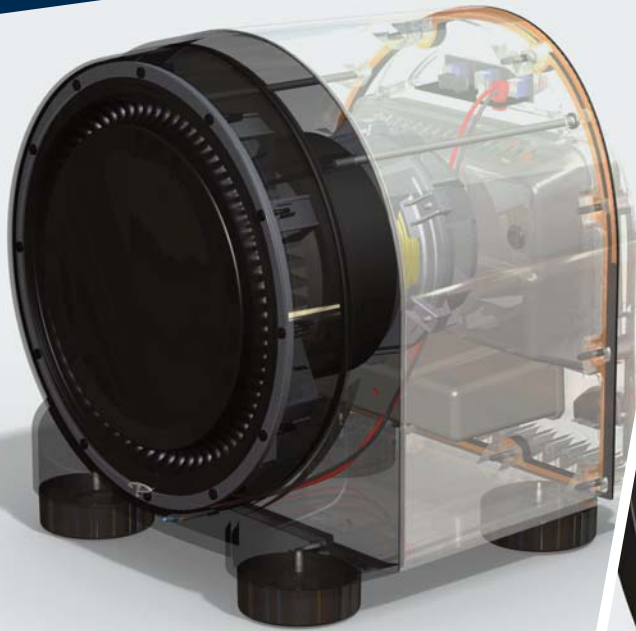


PARADIGM REFERENCE

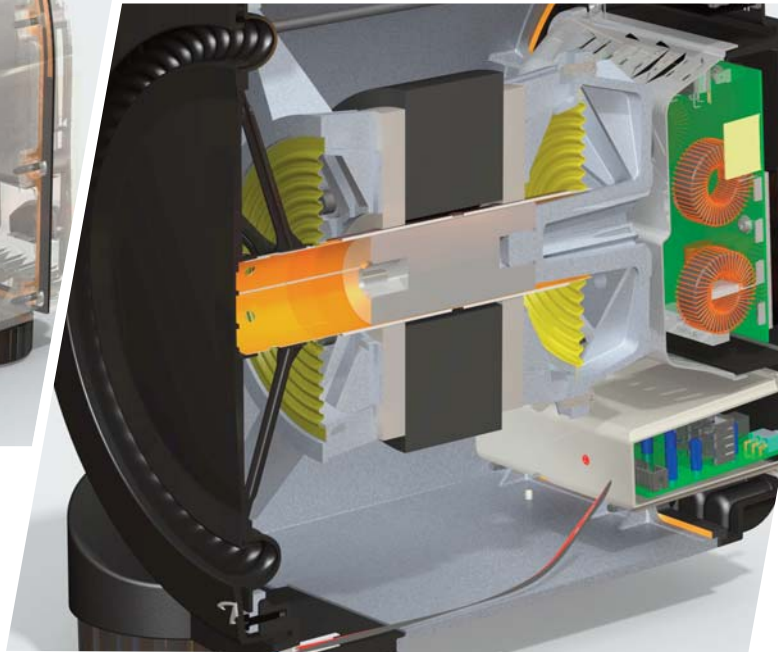
PBK™
R E A D Y

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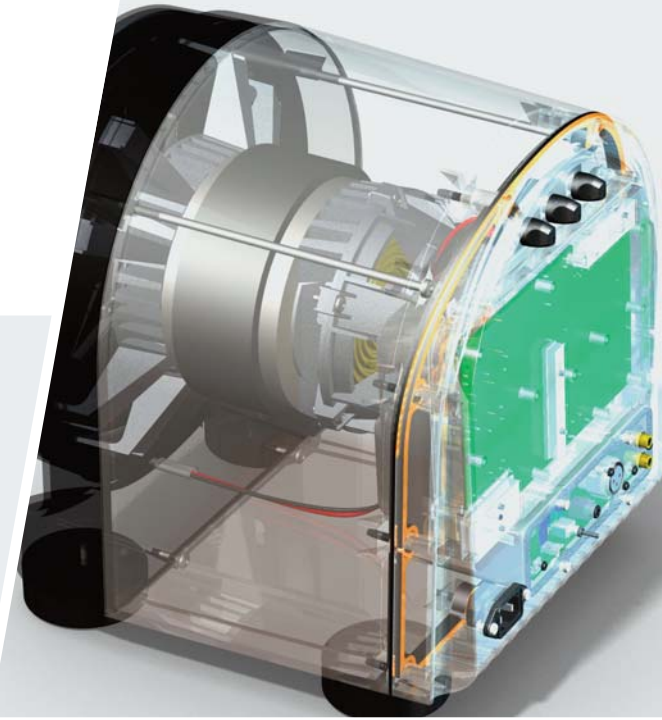
Unlike many subwoofers on the market, Seismic™ 110 has no off-the-shelf parts
**A COMPLETELY CUSTOM BUILD, DEMONSTRATING HOW GOOD IT GETS
WHEN FORM TRULY FOLLOWS FUNCTION!**



Within the interior of the Seismic 110's cabinet, components and amplifier are purpose-designed and appointed to ensure the highest power and greatest level of reliability as well as stability from the smallest possible physical envelope.



Ultra-low distortion split voice-coil design with an extremely long winding width allows for an incredible two inches of linear excursion with vanishing low levels of distortion. Shallow die-cast driver basket and two-piece flattened cone construction contribute to the compact footprint.



The fully integrated heat-dissipating **Ultra-Class D™ amplifier** follows the shape of the cabinet maintaining the overall low profile. The amplifier is mounted directly to the amplifier plate to provide both EMI and shock protection. Preamp cover eliminates any possibility of air leaks.

TO 18 HZ: "AN UNBELIEVABLY DEEP VOICE FOR SUCH A PETITE LITTLE FRAME." – Home Entertainment

Ultra-High-Excursion Bass Driver

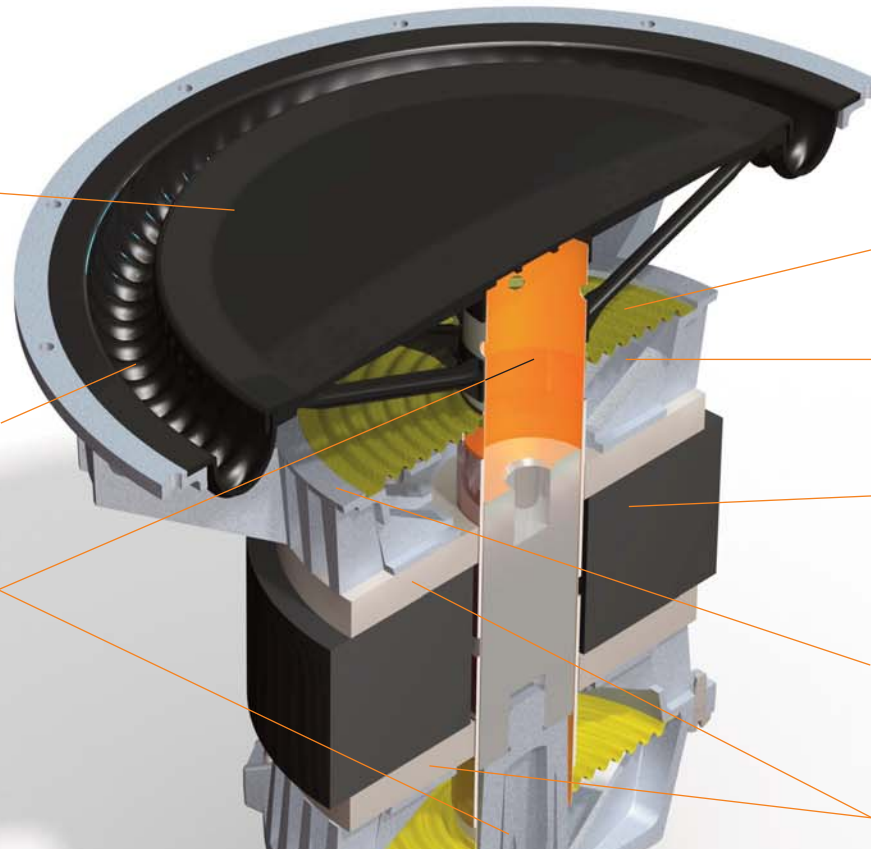
It's all about form following function. Getting the maximum performance from the smallest envelope required a bass driver custom-designed in every aspect ...

Unique Two-Part Cone Construction: The low-profile cone geometry is achieved through a two-part construction. Using the principle of triangulation to lend maximum strength to a compact form factor, the cone is built in two sections: A support cone with I-beam cross-sectional support arms locks the flat outer cone to the voice-coil. The surround is then over molded to the outer edge which becomes an area of high strength when bonded to the outer cone.

Overmolded Inverted Corrugated Santoprene® Surround: Derived from research performed on our award-winning Signature Series speakers, the corrugations allow for extreme excursion while retaining stability and exceptional centering characteristics. The inverted surround contributes to the compact low-profile form factor of the overall cone assembly.

Extreme Long-Winding-Width Voice Coils (almost 60 mm per coil!) allow 2" (50 mm) of extremely linear excursion with vanishing low levels of distortion.

1-1/2" (38-mm) Split Voice-Coil Construction (see inset center picture, below): Oppositely wound turns on each coil effectively eliminate motor non-linearity. High temperature wire (adhesive rated to 450 F/232° C) ensures long-term reliability and very high power handling. **Apical™ formers** contribute to high stiffness.



Dual Spider Suspension keeps the voice-coil perfectly centered during extreme excursion.

AVS™ Airflow Ventilation System Cooling: Forced-air cooling during large musical transients, chassis convection cooling at all other times.

10-lb (4.5 kg) Computer-Optimized Triple Magnet Assembly with Balanced Field Geometry: Optimized to produce a powerful high-density symmetrical magnetic forcefield while minimizing inductive distortion.

Low-Profile High-Pressure Die-Cast Aluminum Chassis: Control flexing and ringing. Aluminum is non-magnetic so stray magnetic losses are eliminated. Shallow basket designed to perfectly accommodate the low-profile cone, reinforcing the overall compact form factor.

Two 1/2-Inch (12 mm) Thick Steel Top Plates provide plenty of close-contact heat-dissipating surface area and thermal mass to maximize power handling.

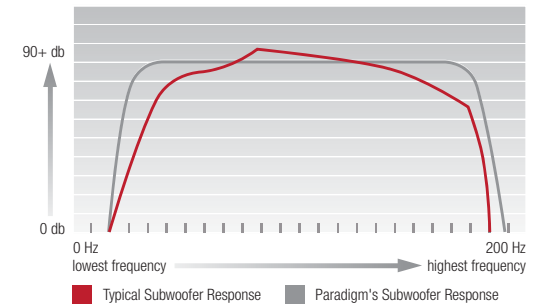
10" (254 mm) Mineral-Filled Co-Polymer Polypropylene Cone with RCR™ resonance control ribs on the underside





The Seismic™ 110 features a state-of-the-art Ultra-Class-D™ amplifier housed inside the gorgeous industrial design cabinet. Once again, form following function is the guiding principle ...

- **Innovative Ultra-Class-D™ Amplifier with Switching Power Supply:** More than 90% efficiency! Prodigious total output: 1,700 watts of Dynamic Peak Power; 850 watts of RMS Sustained Power.
- **Big Power from a Compact Package:** Our low-noise, ultra-high-power, compact transformer (0.4 lb / 0.18 kg) boasts an ETD-core developed particularly for applications that require high power in a small format. The switched-mode power supply benefits from: highest quality MOSFET transistors, noise-suppression networks and an advanced control circuit. The result is tremendous current with ultra-quiet operation.
- **The Full-Bridge Ultra-Class-D™ Design Output Stage:** Operates from split power supply rails ensuring exceptionally low distortion. Not only does this design increase the speed of the switching, it dramatically increases switching efficiency.
- **Precision Components and Dual-Sided Military Spec (FR-4 rated) Glass/Epoxy Circuit Boards:** Superior 'Reference' quality performance with an enviable degree of reliability.
- **Unique Temperature Sensors:** Maintain a safe operating temperature, even under extreme operating conditions.
- **Advanced Short-Circuit Protection:** Should current through the MOSFETs exceed an internally preset limit, a Silicon Controlled Rectifier (SCR) disables the output stage. Essentially a 'latching' device, the SCR will not allow the output stage to be re-enabled until power is reset. Reaction time is typically within 10 μ s.
- **Novel Adaptive PWM (Pulse Width Modulation) Power Processor:** Minimizes distortion and optimizes efficiency. Conventional Class-D designs have very low power supply rejection. Paradigm's Ultra-Class-D™ design inherently rejects variations in the power supply.
- **Paradigm's Digital Signal Processing (DSP) Design:** Sophisticated mathematical algorithms "shape" the frequency response, ensuring accurate, consistent and musical bass without audible distortion, even when the subwoofer is playing at its loudest level.



PARADIGM PERFECT BASS KIT™
The most innovative, accurate digital room correction system available



Even when the Seismic™ 110 is perfectly positioned, the room can still have a negative impact on performance. Room dimensions, dead spots, archways, even furniture placement can turn a room into an additional instrument playing alongside musicians or movie scores with unwanted contributions of coloration and resonance. You have the ideal subwoofer but in a less than perfect room.

You can pad the walls, trap the corners, remove the furniture ... or you can let Paradigm's Perfect Bass Kit (PBK) tackle the problem. Based on research conducted by the National Research Council, PBK analyzes the subwoofer's response in your room, then sets about perfecting that response through scientific calculation! Does it really work? You bet it does. Click below to read a glowing review of PBK.

www.paradigm.com/en/paradigm/reviews/review-5-30.paradigm

Sold separately

A LIFESTYLE SUB FOR LIFESTYLE SPEAKERS!



The fabulous little Seismic™ 110 sonic bulldog is designed to provide the deep bass performance in any Paradigm Reference Home Theater system and in particular a Millenia™ lifestyle system for a blockbuster movie night at home!

SPECIFICATIONS

SEISMIC™ 110

Amplifier

High-Current Discrete-Output:
1,700 watts Dynamic Peak / 850 watts RMS Sustained

Amplifier Features

Auto-On/Off; Trigger-On/Off; soft clipping; electrical shorting protection; thermal protection

Bass Driver

254-mm (10 in) high-excursion mineral-filled co-polymer polypropylene cone with RCR™ resonance-control ribbing on underside; FEA-optimized overmolded, inverted Santoprene® surround; 38-mm (1-1/2 in) diameter split voice-coil construction (60-mm coil lengths); dual Nomex® spiders; high-temperature Apical™ formers; dual 12-mm-thick top plates; 10-lb (4.5 kg) triple ceramic (hard ferrite) magnet structure; AVS™ die-cast heatsink chassis

Low-Frequency Extension*

18 Hz (DIN)

Subwoofer Cut-Off Frequency

Variable 35 Hz – 150 Hz; Bypass Option

Sub/Sat Phase Alignment

Variable 0° – 180°

Line-Level Input

RCA (S/E) Left and Right or Sub-Out / LFE or Balanced XLR. From Sub-Out / LFE-Out of preamp/processor or other line-level source

Line-Level Input Sensitivity

100 mV mono

Line-Level Input Impedance

RCA: 10k ohms; XLR: 20k ohms

Accessory (sold sep.)

Paradigm Perfect Bass Kit™

Height, Width, Depth

(Measurements reflect the highest, widest and deepest points on the subwoofer and include non-removable feet)

34.3 cm x 29.8 cm x 32.0 cm
13-1/2 in x 11-3/4 in x 12-9/16 in

Weight (unpacked)

16.8 kg / 37 lb each

Finishes

Satin Black

*DIN 45 500. Indicates -3 dB in a typical listening room.

Input and Control Facilities

Input Facilities

Low-Level Input – RCA:

Allows connection from the RCA (S/E) Left and Right or Sub/LFE Outputs of your Preamplifier/Processor or other suitable low-level source.

Low-Level Input – Balanced XLR:

Allows connection from the Balanced XLR Sub/LFE Output of your Preamplifier/ Processor or other suitable low-level source. This input provides the lowest noise and distortion. It is important for long cable runs where noise and distortion could degrade performance.

Control Facilities

Auto On/Off:

Eliminates the need for a manually operated power switch. Turns the subwoofer on when there is an input signal. If no signal is present, after a period of time it turns off.

Trigger On/Off:

Allows the subwoofer's power on/off to be controlled by components that have a trigger output (preamp/processor, etc.).

Subwoofer Cut-Off with Bypass Option:

(Continuously variable 35 Hz – 150 Hz.) Controls the subwoofer's upper frequency cut-off and can be set to match the low-frequency roll-off characteristics of your system's speakers.

Bypass Option allows you to bypass the subwoofer's built-in cut-off control to let your preamp/processor's or receiver's internal bass management system provide the crossover function.

Subwoofer Level Control:

Balances the subwoofer level with that of the other speakers in your system.

Phase Alignment:

(Continuously variable 0° – 180°.) Accurately synchronizes your subwoofer and front speakers through their bass frequency overlap region.

USB Port / PBK Interface:

Allows for:

- Connection of the Paradigm Perfect Bass Kit digital room correction system, sold separately
- Potential Future upgrades to software installed in your subwoofer