

Bowers & Wilkins

Custom Theatre



The language of dreams

There's a reason why they call it the movies. And it's not just to do with what's happening on screen. Cinema moves you. It transports you to other places: different times, faraway lands, alien worlds. It's the language of emotions, of dreams.

Bowers & Wilkins knows a thing or two about dreams. After all, our company was founded on one. John Bowers always dreamed of building the perfect loudspeaker – one that brings the listener as close as possible to sound as it was recorded. That was our goal more than 40 years ago, and it remains so this day.

Cinema speaks in transformative experiences. It brings its audience so close to a dream of reality that, just for a moment, they feel as though they can reach out and touch it. At B&W, that's a language we understand very well.



Where cinema sound is born

You're looking at the place where Hollywood puts music to movies. This is the control room of Skywalker Sound in Marin County California. It's one of the most advanced audio production facilities in the world, and probably the ultimate multi-channel listening environment. Naturally, it uses the world's ultimate reference speaker system, featuring B&W 800 Series speakers. For speakers capable of revealing cinema sound as it was meant to be heard, you can trust B&W. The people who make movies already do.





EXIT



Custom Theatre 700



"It can't be done." That was most people's reaction when we said we wanted to bring a premium Custom Theatre sound system to market at an affordable price. At B&W, that's exactly the sort of challenge we like.

Our CT700 range represents nothing less than a revolution in what's possible in home theatre sound when space and budget are limited. The range incorporates pioneering technologies found in our most advanced speakers – innovations such as Aramid Fibre drive unit cones and Nautilus™ tube-loaded

tweeters. It creates cinema sound more lifelike, more immersive, and more powerful than you would ever have imagined possible. And it brings you all this in compact design that can be adapted for many different home theatre environments, large or small.

With CT700 system, what you get is nothing less than the true cinema experience at home. Popcorn not included.



CT7.3 LCRS

The top of the range speaker offers unparalleled clarity combined with powerful low frequency effects thanks to a pair of whopping 8" paper/Aramid Fibre bass units and a dedicated Aramid Fibre FST™ midrange.



CT7.5 LCRS

The entry-level speaker delivers outstanding spaciousness, imaging and definition through its single 7" Aramid Fibre bass/midrange unit.



CT7.4 LCRS

The mid-point speaker in the range offers superior performance at lower frequencies through its two 6" Aramid Fibre bass/midrange drivers.



A CT700 home theatre system should be coupled with one of our CT SW subwoofers. Choose the size to fit your needs. (Not shown to scale)

Custom Theatre Subwoofer

Great bass can be the difference between hearing a film and really feeling it. For the kind of thrilling, physical impact that sets the adrenalin pumping and the blood racing, there's no substitute for a good subwoofer. So however big or small your custom theatre set-up, you'll be glad to know we've got the sub to match.

At the top end of the range, the CT8 SW is a dedicated sub designed specifically for the CT800 Series. For a CT700 system or a set-up featuring the CT8.4 LCRS or CT8.2 LCR in front, side and

rear channels, you have the choice of one of our three CT SW subwoofer models. The CT SW subs boast an ultra-robust paper/Aramid Fibre cone, and come in either a 10, 12 or 15-inch size.

Used on their own within a multi-channel system, or daisy-chained together for maximum impact, each model provides the dynamics and control needed to handle the most powerful movie effects. All that's left for you to do is hang on to your seat.



CT SW10



CT SW12



CT SW15



Breaking the rules: B&W's extraordinary Nautilus™ redefined how speakers could be designed and built.

We believe our Custom Theatre speaker ranges are the best cinema sound systems you'll ever hear. That's thanks to B&W technology and craftsmanship – innovations and techniques that have taken more than 40 years to develop, and that have come to influence how all speakers are designed.

Take apart our Custom Theatre speakers and you'll find technology derived directly from reference speakers like the B&W 800 Series: speakers that are used as standard by the world's most demanding recording studios. Because of these highly refined technologies, our speakers are equipped for subtlety as well as power: for capturing the emotional nuance in a voice as well as the impact of a car crash or an explosion.

We've put a lot into our Custom Theatre speakers. They may be the most sophisticated pieces of kit you'll ever keep in a cupboard. And you won't ever want to take them out.

The speakers in the CT800 range are a direct descendant of the 800 Series, shown here on the left. A combination of technological innovation and supreme craftsmanship, the 800 Series has become the reference speaker of choice for recording studios from Skywalker Sound in California to Abbey Road in London. Now, thanks to CT800, you can bring these same world-leading technologies to your home theatre set-up.



Head

With stand-alone hi fi speakers, it's simple to position them so that the sound travels in the direction you want it to. But what about in a Custom Theatre set-up, where your speakers are flat against a wall inside a cabinet with no space to manoeuvre? Not a problem, thanks to our ingenious adjustable head units.

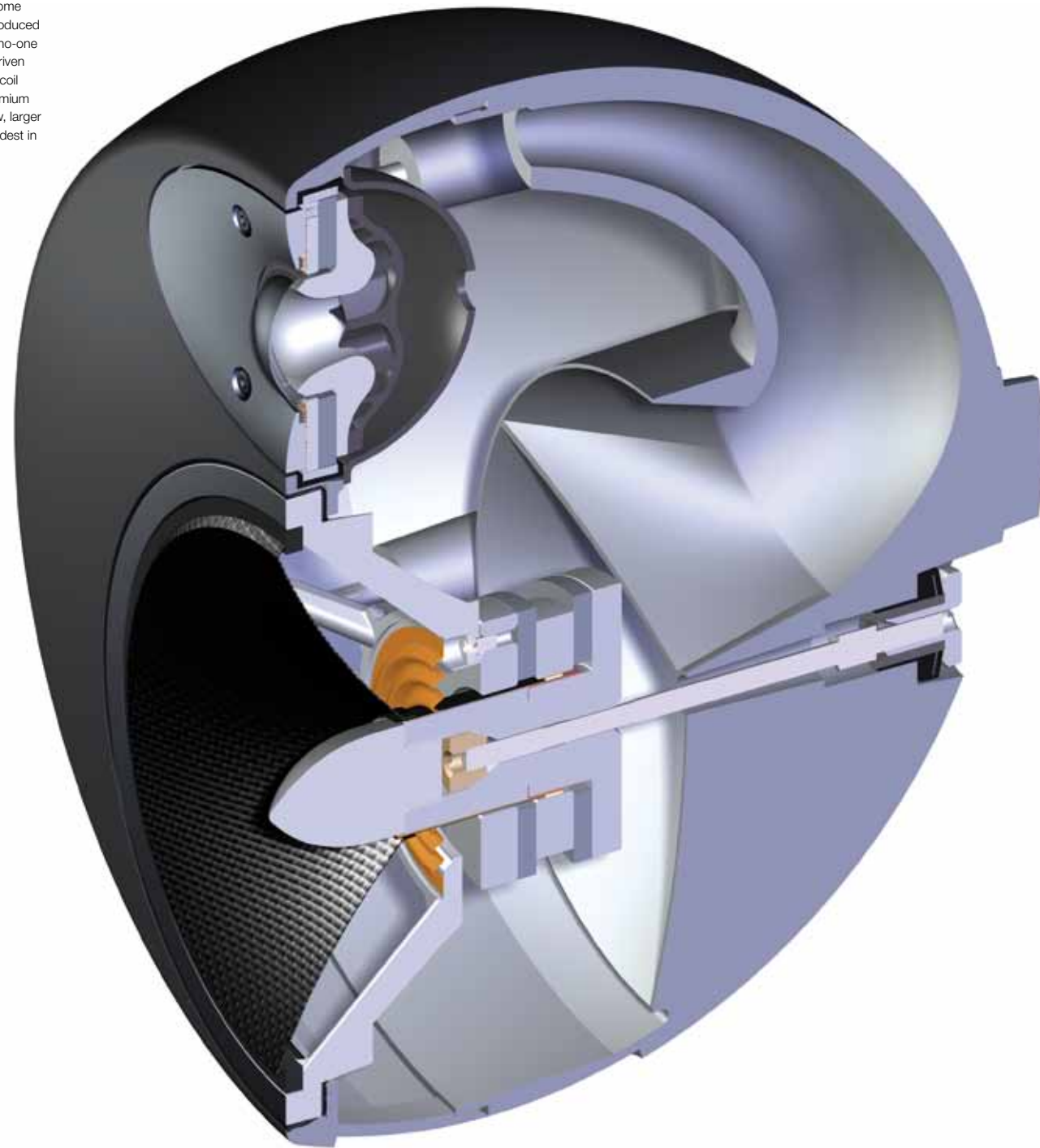


The midrange and tweeter of the CT8 LR and CT8 CC speakers are contained within a single head unit, decoupled from the rest of the cabinet so that it can swivel in different directions. That means you can make sure that detailed treble effects are pointed directly towards your seating area, no matter how wide your screen or where your cabinets are positioned. The grilles on either side of the swivelhead help to remove any unwanted sound reflections from the edges of the recess in which the head is housed.

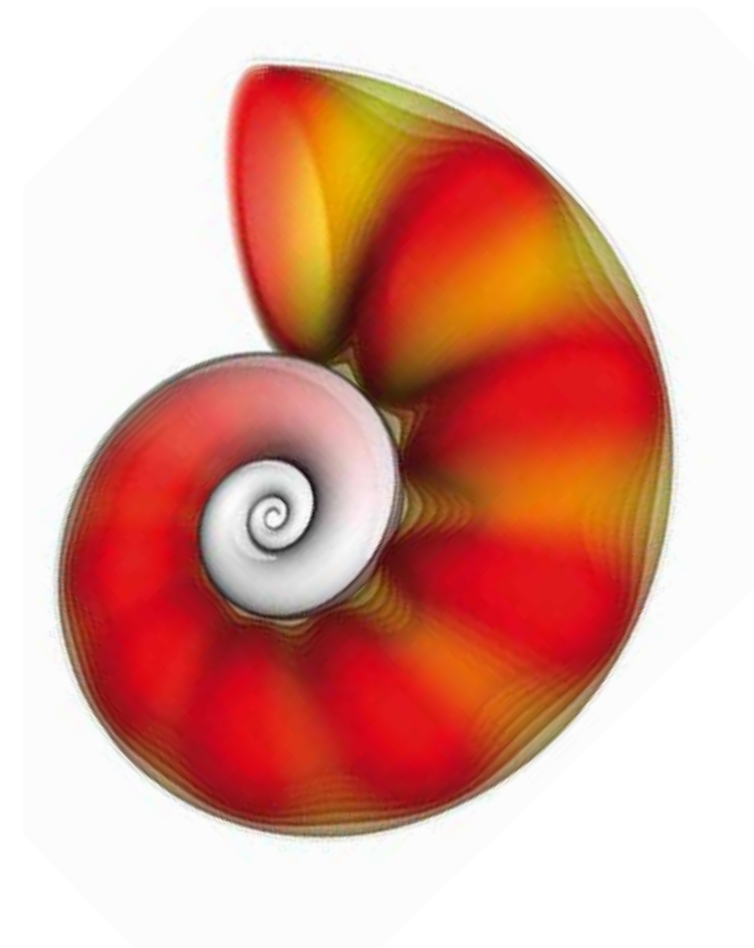


Tweeter

To get round high-frequency distortion and directivity problems common to home theatre speakers, we produced a tweeter of a kind that no-one has ever seen before. Driven by an aluminium ribbon coil and an oversized neodymium motor structure, the new, larger tweeter is one of the loudest in existence.



You'll rarely hear high frequencies captured with such startling precision as you will with our Custom Theatre speakers. That's down to a radical rethink in tweeter design, combined with the clever adaptation of technologies first introduced in our most legendary hi fi speaker to date: the trailblazing, convention-defying Nautilus™.



Some of our most innovative technologies take their inspiration from nature. For the body of our Nautilus™ speaker, for example, we created a spiraling, conch-like form that drains away all unwanted excess sound from the rear of the driver, rather than letting it bounce noisily around inside the cabinet. The result? Almost zero coloration from the back of the speaker, and a much purer sound from the front.

For the Custom Theatre range we've taken this concept one step further. We replaced the single, long tube with a whirl of tightly-packed, smaller channels contained in a shallow cup, each of which absorbs a portion of unwanted sound energy from the back of the diaphragm. Even at frequencies well beyond human hearing, this tweeter sings like a bird.

Midrange

Some things don't change. It's been 30 years since B&W first discovered that Aramid Fibre makes for ideal midrange cone material, snuffing out the concentric standing waves that blur the sound in conventional cones. Lending support is our fixed suspension transducer (FST™ for short), a ring of foam around the cone's edge that soaks up bending waves and allows the cone to move even more freely and responsively.

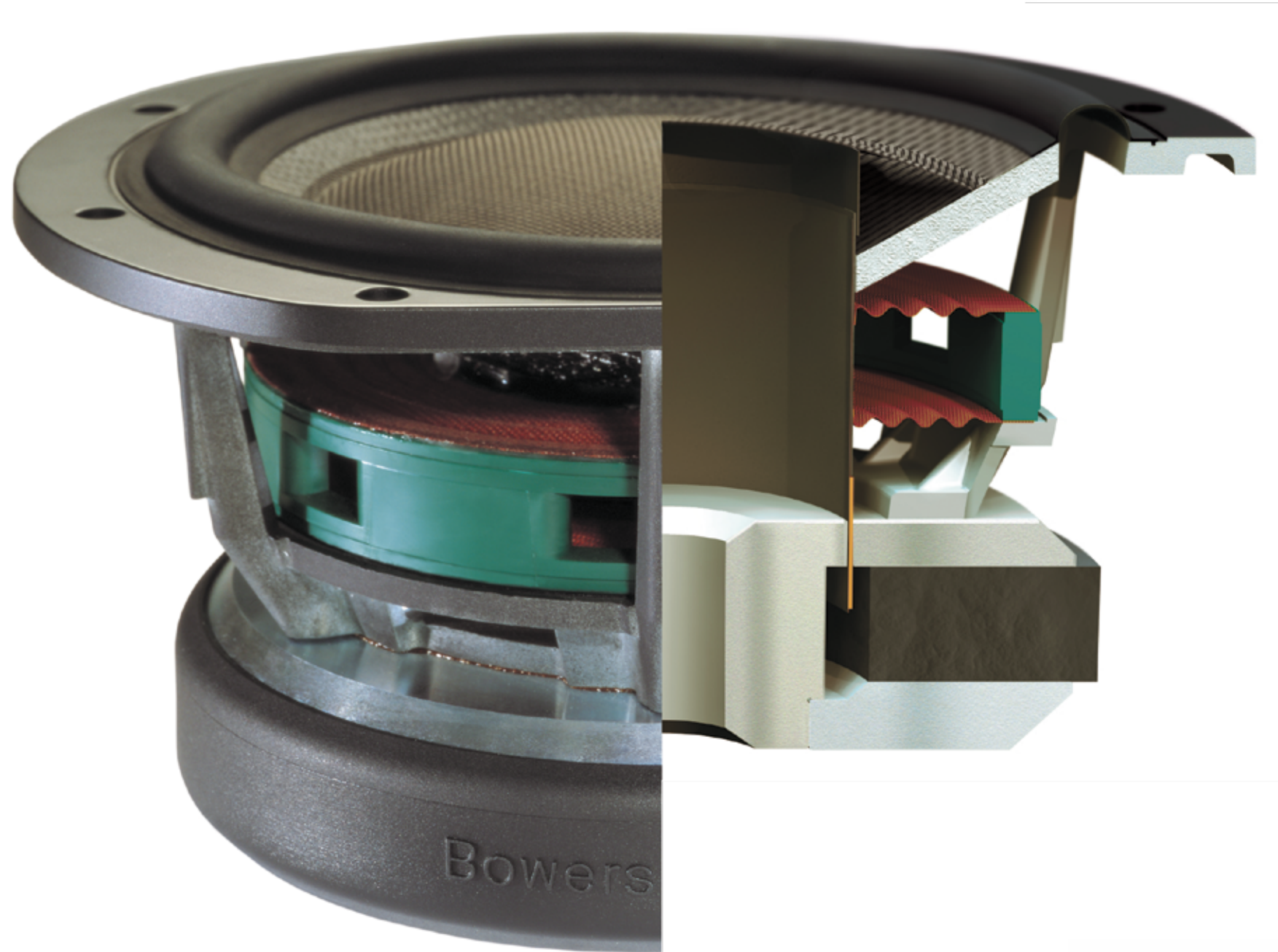
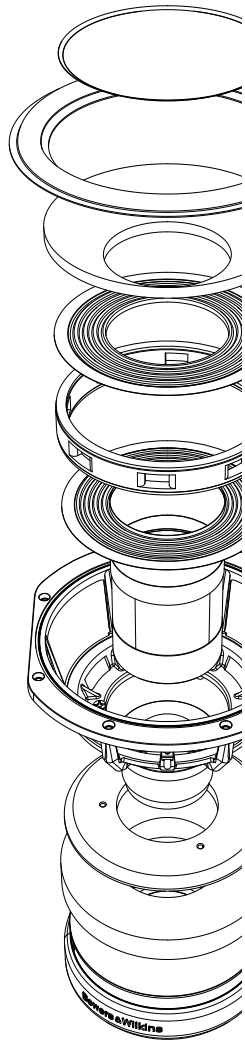
There's nothing middling about this midrange. Whether it's the use of Aramid Fibre in the cone, advanced FST™ technology, or a new and improved motor system, we've stopped at nothing to make sure this drive unit delivers unrivalled power, depth and clarity.



The ideal drive unit is one that works like a perfect piston: moving back and forth on a fixed axis with as little distortion as possible. That's exactly what we've achieved with the Custom Theatre midrange. The unit is driven by an ultra high-strength twin magnet motor system, which gives the driver twice the power of the standard version while dramatically improving its linearity.

Bass

Only a truly rigid driver will deliver the sheer, visceral impact that cinema bass effects demand. Custom Theatre bass drivers use a mushroom diaphragm construction that bonds the cone, dust cap and huge voice coil together in a single girder-like unit.

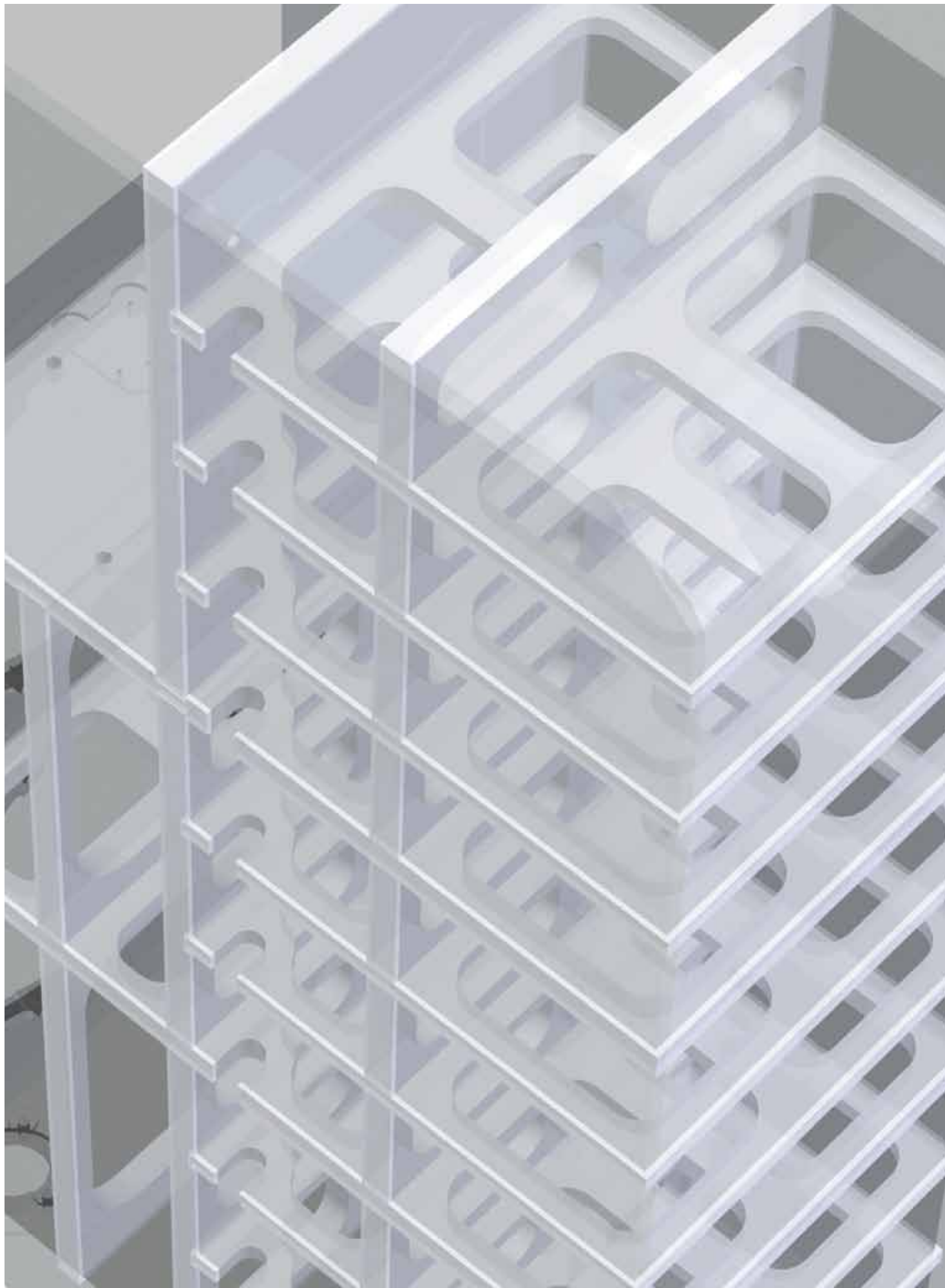


It's a formidable-looking set-up by anyone's standards. And it has to be. The bass drivers in our Custom Theatre range are capable of generating physical forces so powerful that only the most solid construction and materials can withstand them. Combined with advanced technologies such as a Rohacell® cone and a four-inch carbon fibre voice coil, and you've got a driver capable of handling all the stress and pressure that movie sound can throw at it.



Bass cones must be as light as possible for maximum agility, but absolutely rigid in order to retain their shape as they pump in and out. Rohacell® is a sophisticated composite construction made of a hard foam core sandwiched between carbon fibre skins. It's the kind of material normally used for aircraft, rockets and the bodies of racing cars. For speed, stiffness and unshakable bass, it's the bottom line.

Cabinet bracing

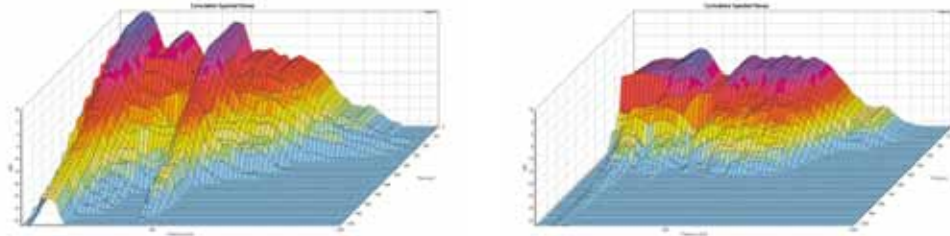


Sound with backbone demands a speaker with backbone. With speakers as powerful as these confined in walls and cupboards, it's essential that each speaker is as rigid as possible to avoid any unwanted vibrations and resonances colouring the sound. Custom Theatre speakers are given the strength they need by B&W's Matrix bracing system – an internal grid of interlocking cells. This indomitable skeleton – like that of a building – dissipates forces around the cabinet and creates a single rock-solid unit.



Customisation

Two computer readouts show the results of test signals passed through a Custom Theatre set-up. Adjusting the frequency response helps remove unwanted resonance, demonstrated by the flatter peaks in the second readout.



Sound is affected by environment. This is particularly true of home theatre system, where multiple speakers are used in different positions throughout a room. With so many variables affecting the detail of sound at bass frequencies, how can you be sure you're always getting the most from your system? It's simple, thanks to the CT8 XO Mk2 active bass management controller.

The crossover features three independent parametric equalisers, giving engineers and installers complete control over every aspect of the system's bass output. By running a test signal through the system after installation and adjusting the frequency response, any resonances can be ironed out. You're left with a system that sounds smooth and perfectly formed, even if your theatre environment isn't.



CT7.5 LCRS

Technical features	Nautilus™ tube loaded tweeter Aramid Fibre bass/midrange cone Flowport™ Magnetically attached grille
Description	2-way vented-box system
Drive units	1x ø25mm (1 in) cloth dome high-frequency 1x ø180mm (7 in) woven Aramid Fibre cone bass/midrange
Frequency range	-6dB at 48Hz and 28kHz
Frequency response	55Hz – 22kHz ±3dB on reference axis
Dispersion	Within 2dB of reference response Horizontal: over 60° arc Vertical: over 10° arc
Sensitivity	92dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 100Hz – 20kHz
Nominal impedance	8Ω (minimum 4.6Ω)
Crossover frequency	4kHz
Recommended amplifier power	50W – 120W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω
Dimensions	Height: 305mm (12 in) Width: 444mm (17.5 in) Depth: 265mm (10.5 in) Depth including grille: 288mm (11.3 in)
Net weight	11.5kg (25.4lb)
Finishes	Cabinet Black painted Grille Black cloth



CT7.4 LCRS

Technical features	Nautilus™ tube loaded tweeter Aramid Fibre bass/midrange cone Flowport™ Magnetically attached grille
Description	2-way vented-box system
Drive units	1x ø25mm (1 in) cloth dome high-frequency 2x ø165m (6.5 in) woven Aramid Fibre cone bass/midrange
Frequency range	-6dB at 43Hz and 28kHz
Frequency response	49Hz – 22kHz ±3dB on reference axis Within 2dB of reference response
Dispersion	Horizontal: over 60° arc Vertical: over 10° arc
Sensitivity	94dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 90Hz – 20kHz
Nominal impedance	8Ω (minimum 4.0Ω)
Crossover frequency	4kHz
Recommended amplifier power	50W – 150W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω
Dimensions	Height: 343mm (13.5 in) Width: 444mm (17.5 in) Depth: 265mm (10.5 in) Depth with grille: 288mm (11.3 in)
Net weight	16.5kg (36.4lb)
Finishes	Cabinet Black painted Grille Black cloth



CT7.3 LCRS

Technical features	Nautilus™ tube loaded tweeter Aramid Fibre cone FST™ midrange Paper/Aramid Fibre cone bass driver Flowport™ Magnetically attached grille
Description	3-way vented-box system
Drive units	1 x ø25mm (1 in) cloth dome high-frequency 1 x ø150mm (6 in) woven Aramid Fibre FST™ mid-range 2 x ø200mm (8 in) Paper/Aramid Fibre bass units
Frequency range	-6dB at 36Hz and 28kHz
Frequency response	42Hz – 22kHz ±3dB on reference axis
Dispersion	Within 2dB of reference response Horizontal: over 60° arc Vertical: over 10° arc
Sensitivity	92dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 50Hz – 20kHz
Nominal impedance	8Ω (minimum 3.0Ω)
Crossover frequencies	350Hz, 4kHz
Recommended amplifier power	50W – 200W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω
Dimensions	Height: 360mm (14.2 in) Width: 606mm (23.9 in) Depth: 265mm (10.5 in) Depth with grille: 288mm (11.3 in)
Net weight	22.5kg (49.6lb)
Finishes	Cabinet Black painted Grille Black cloth



CT SW10

Technical features	Long throw paper/Aramid Fibre cone bass driver Magnetically attached grille
Description	Closed-box subwoofer system with external rackmount amplifier
Drive units	ø250mm (10 in) Paper/Aramid Fibre cone long-throw
Frequency range	-6dB at 18Hz and 25/140Hz adjustable (EQ at A)
Frequency response	±3dB 26Hz - 40/140Hz adjustable (EQ at A)
Bass extension	-6dB at 18Hz (position A) -6dB at 23Hz (position B) -6dB at 29Hz (position C)
Power handling	1000W
Dimensions	Height: 360mm (14.2 in) Width: 340mm (13.4 in) Depth: 260mm (10.3 in) Depth with grille: 290mm (11.4 in)
Net Weight	14.85kg (32.7 lb)
Finish	Cabinet Black painted Grille Black cloth



CT SW12

Technical features	Long throw Paper/Aramid Fibre cone bass driver Magnetically attached grille
Description	Closed-box subwoofer system with external rackmount amplifier
Drive units	ø300mm (12 in) paper/Aramid Fibre cone long-throw
Frequency range	-6dB at 17Hz and 25/140Hz adjustable (EQ at A)
Frequency response	±3dB 24Hz - 40/140Hz adjustable (EQ at A)
Bass extension	-6dB at 17Hz (position A) -6dB at 22Hz (position B) -6dB at 26Hz (position C)
Power handling	1000W
Dimensions	Height: 465mm (18.3 in) Width: 396mm (15.6 in) Depth: 260mm (10.3 in) Depth with grille: 290mm (11.4 in)
Net Weight	25kg (55.1 lb)
Finish	Cabinet Black painted Grille Black cloth



CT SW15

Technical features	Long throw Paper/Aramid Fibre cone bass driver Magnetically attached grille
Description	Closed-box subwoofer system with external rackmount amplifier
Drive units	ø380mm (15 in) paper/Aramid Fibre cone long-throw
Frequency range	-6dB at 16Hz and 25/140Hz adjustable (EQ at A)
Frequency response	±3dB 23Hz - 40/140Hz adjustable (EQ at A)
Bass extension	-6dB at 16Hz (position A) -6dB at 20Hz (position B) -6dB at 25Hz (position C)
Power handling	1000W
Dimensions	Height: 550mm (21.7 in) Width: 550mm (21.7 in) Depth: 260mm (10.3 in) Depth with grille: 290mm (11.4 in)
Net Weight	30kg (66.1lb)
Finishes	Cabinet Black painted Grille Black cloth



Subwoofer Amplifier SA1000

Description	Dedicated CTSW rackmount single channel 1000W amplifier
Functions	Front panel controls: Rotary volume (line in) Rotary low-pass filter frequency (4th-order Linkwitz, 40Hz - 140Hz) Low-pass filter defeat 2-posn switch Phase 0/180 2-posn switch Bass extension 3-posn switch Movie/music EQ 2 posn switch On/auto/standby 3-posn switch Status LED Fault LED
Inputs	Line In (XLR & RCA Phono) 1x RCA phono socket, line in 1x RCA phono socket, link out 1x XLR socket, line in 1x XLR socket, link out 3.5mm jack – 12V trigger on/standby (overrides manual standby setting) 12V trigger (3.5mm jack)
Outputs:	1x Speakon® 4-pole speaker socket 2x pair of Binding Posts 3.5mm jack – 12V trigger movie/music
Rated power consumption	300W 34 Watt – Idling 3 Watt – Standby
Dimensions	Height: 100mm (3.9 in) [88.5mm (3.5 in) plus feet] Width: 430mm (16.9 in) Depth: 322mm (12.7 in) Front panel height: 2U 88.1mm (3.5 in)
Weight	6.45kg (14.3 lb)
Finish	Black





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