

7979 SERIES
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MISSION



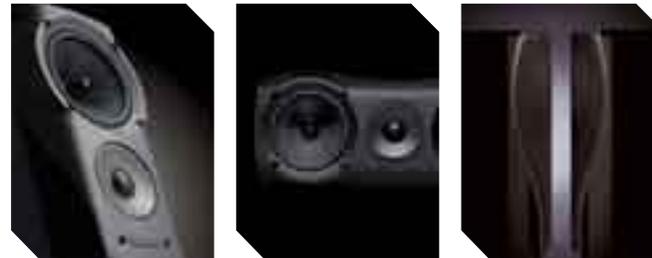
79 79 SERIES

Mission 7 series loudspeakers have always been afforded the highest respect, both in critical listening tests and for their iconic style.

The new 79 series embraces this tradition with aplomb, elevating the performance and design standards to

new heights – a symbiosis of form and function building on over 30 years at the forefront of acoustic design.

We aim for musical perfection in the performance and aesthetic perfection in design. Connect up, sit down and enjoy.





For most other manufacturers, loudspeaker design is full of compromise. More often than not, it's a case of taking whichever drive units are available from the various manufacturers, designing a cabinet which someone else builds and designing a crossover which compensates for the differences between drivers and between driver and cabinet. Even large, well-known manufacturers that claim

to have revolutionary designs are often just assembling parts built by someone else.

Mission, is one of the largest manufacturers of audio products in the world – and certainly the most vertically integrated. The flow through our 1.5 million square foot factory from raw material to finished product is well choreographed with quality

control check-points at every stage throughout the process.

Our UK based design team have the freedom to specify materials, processes, and performance parameters for every component part – often working with our experienced production teams to develop new, more efficient production processes and better, cohesively designed products.



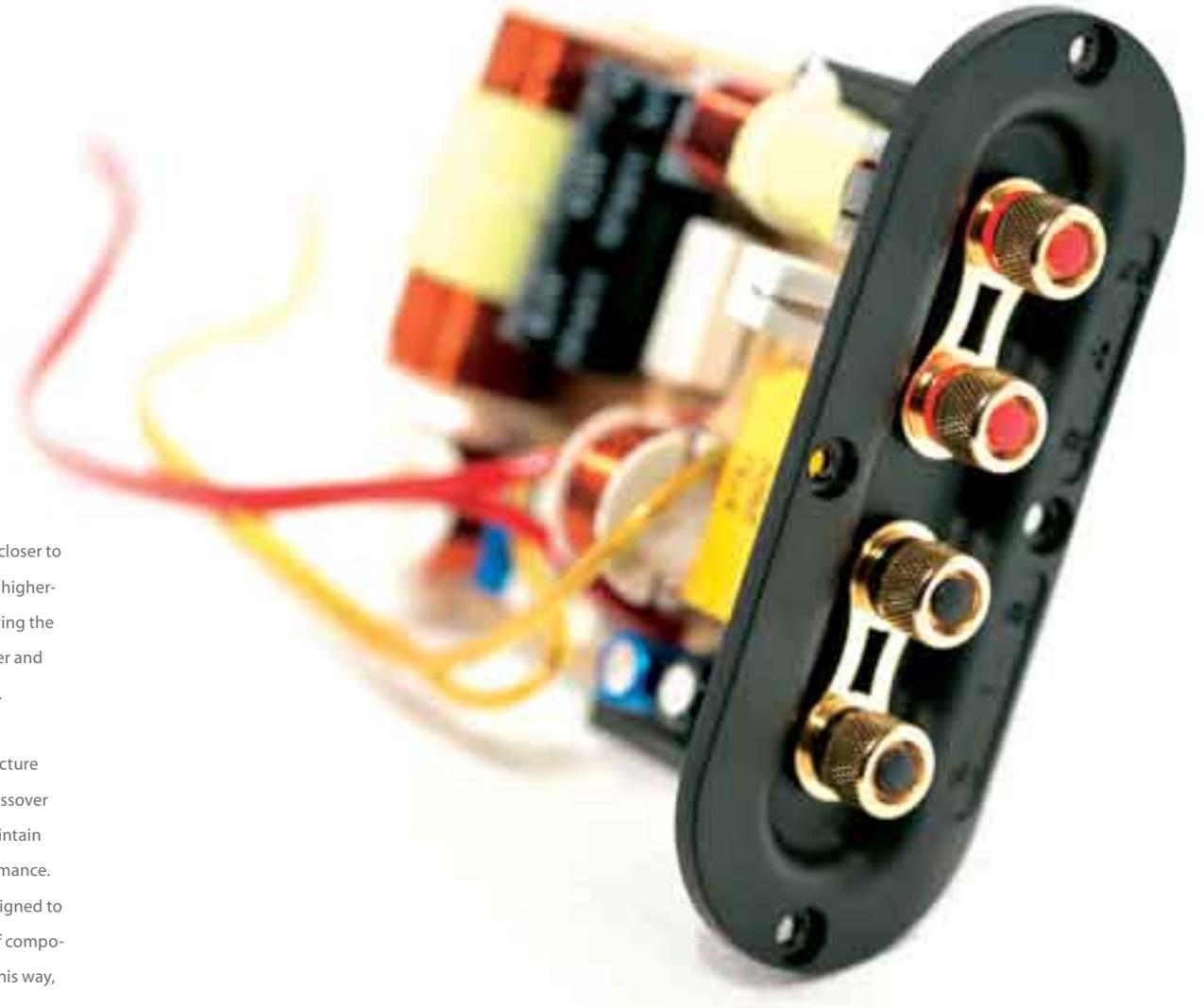


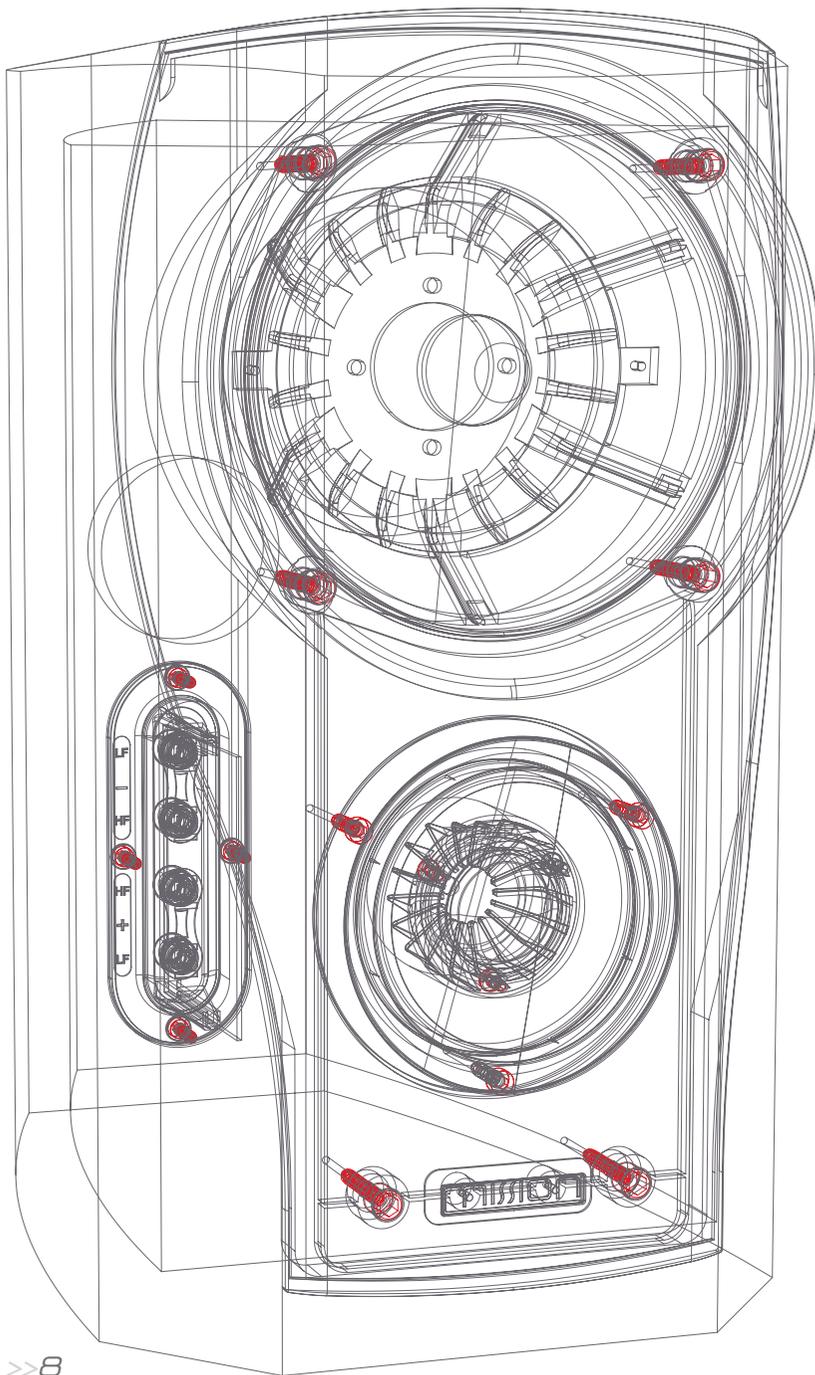
Crossover synergy

Because of our synergy throughout the design and manufacture process, we are able to very closely match drive units to their cabinets and intended frequency responses. As a consequence, very little is required in the way of electrical correction through the crossover components and we can make them very simple. This has significant additional benefits. An ideal crossover preserves complete phase linearity through the crossover region. Most crossovers, however, fall some way short of this ideal. Whilst a perfect crossover is a virtual

impossibility, we can get much closer to the ideal by using far fewer and higher-quality components. By preserving the signal path intact, the bass driver and treble units can move in unison.

Because we design and manufacture our own crossover PCBs and crossover components, we are able to maintain the highest standards of performance. Our 79 series crossovers are designed to minimise the inductive effect of components upon each other and, in this way, preserve the music signal accuracy.





For every action there is an equal and opposite reaction and loudspeakers are no exception. The loudspeaker cabinet is a necessary evil. One which allows the forward sound wave to be transmitted whilst trapping the rearward sound-wave inside the cabinet the aim being to damp and absorb the rear firing wave. Absorbing those sound-waves and controlling those cabinet resonances caused as a



result is problematic - and has for many years kept acousticians fully employed.

The 79 series represents a significant step-forward in enclosure design. The multi-layer cabinet construction utilises 3 different densities of resonant absorbing particle composite. The layers are laminated with RF activated resin to provide further isolation of vibration and

prevent layer interaction. Each layer and material type is tuned to damp different frequencies of cabinet resonance, combining to reduce lateral and longitudinal transmission of vibration significantly throughout the cabinet structure.

The effect? A completely rigid enclosure with drastically reduced colouration and resonance – much closer to the ideal enclosure.





Cone Dynamics



Mission has always pioneered the use of revolutionary materials in loudspeaker cone design. Our understanding of cone dynamics has led us on a quest for a material which exhibits not only incredible three-dimensional rigidity to aid linear pistonic motion, but one that is also highly internally damped to prevent longitudinal reflections. Above all else, the material must be very light and fast – carrying less inertia for a more accurate transient response.

Our latest cone material 'Parawave' is the result of many years research into the properties of aramid fibres and how they can best be used in loudspeaker cones. Aramids are man-made polymers with exceptional tensile strength – 5 times stronger than the equivalent weight of steel. They are used wherever strength and weight are an issue - however to be effective in a loudspeaker cone, they need to be formed into a three dimensional matrix, bonded with a compatible resin and cured extensively.

Through our aramid testing programme; researching the nature of different weaves, bonding resins, construction methods and types of fibre, we have now created a cone that exhibits near perfect linear pistonic motion over its entire frequency range, has unparalleled internal damping, yet retains all the speed and accuracy inherent in the material and with negligible artefacts. In effect – the ideal cone material.





Hi-fi doesn't have to mean square boxes and conservative materials. Quite the contrary is in fact true. Traditional box loudspeaker designs impede performance, adding colouration to the sound produced and affecting the dispersion characteristic – yet these are characteristics we have grown accustomed to.

Whether designing sports cars, yachts, or hi-fi loudspeakers, the best aesthetics are those that not only appeal visually, they also enhance the function of the product. Very occasionally, when a skilled designer is able to work closely with a skilled engineer, the two work symbiotically with form improving function and vice versa. Only when

form and function are in perfect balance, can a product become truly remarkable.

79 series from mission has been conceived, developed and engineered according to these principles. Every aspect of performance is evident in the graceful, gentle curves. The profiled baffle has been perfected to optimise dispersion: the narrow base working with the inverted driver geometry to produce a good response as wide as 70 degrees from the central axis. The tweeter wave-guide integrates perfectly into the front baffle assembly, closely coupled, yet acoustically isolated from the Parawave cone bass driver with iridium phase plug.

Internally the same principles continue :- the low profile chassis legs reduce 'through-cone' reflection. Cast from aluminium alloy, they are light and strong. The tweeter heat-sink wicks heat away from the ferro-fluid cooled voice coil to maintain a constant temperature and reduce thermal compression. Even the crossover is directly coupled to the terminals for the shortest, most direct signal path.

79 series from mission, like the best sports cars and yachts, is remarkable – and it was designed to be from the very inception.

Unlike some 'lifestyle' subwoofers present in the market, the 79 series subwoofer uses a high-powered pure class A-B Amplifier topology – maintaining the full signal purity at exceptional output levels and without the need for noisy 'Switch-mode' power supplies.

What separates the mission 79AS from other audiophile subwoofers, however, is our commitment to providing 'Direct Filter Paths' through the subwoofer, rather than employing 'digital sound processing' to alter the characteristic of the signal being fed into the amplifier stage. Preserving the music signal is

paramount to the harmonic structure and even at the long wavelengths associated with bass frequencies this is easily upset by the insensitive use of superfluous electronics. Careful subwoofer and loudspeaker placement along with the 79AS control features which include phase, volume and crossover – all accessible from a fully functioned remote - are the perfect solution. After all – why build a superlative hi-fi system, just to have your own subwoofer degrade the performance?





Specifications



	790	792	794	796	79c	79Ds	79As	79 SERIES STAND
Enclosure Type	2-way reflex	2-way reflex	3-way reflex	3-way reflex	2-way sealed	2-way sealed	Sealed box	For 790 & 792 loudspeakers
Frequency Response + 3dB	65 Hz - 20 kHz	58 Hz - 20 kHz	48 Hz - 20 kHz	38 Hz - 20 kHz	70 Hz -20 kHz	70 Hz - 20kHz	25 Hz - 110Hz	
Sensitivity SPL/M @ 2.83V	87 dB	89 dB	89 dB	90 dB	90 dB	87dB	250mV for 100W	
Volume	7 litres	11 litres	19 litres	32 litres	7.2 litres	4.5 litres	42 litres	
Impedance	8 Ohms compatible	8 Ohms compatible	8 Ohms compatible	8 Ohms compatible	8 Ohms compatible	8 Ohms compatible	-	
Recommended Amplifier	50 - 150W	50 - 175W	50 - 200W	50 - 200W	50 - 200W	25 - 100W	Integrated 300W amplifier	
Dimensions(H x W x D): mm	300 x 170 x 270	360 x 206 x 340	795 x 165 x 295	998 x 206 x 318	172 x 395 x 290	220 x 260 x 125	460 x 310 x 500	
Package Quantity	Pair	Pair	Single	Single	Single	Pair	Single	
High Gloss Cabinet Finishes	Black Rosewood	Black Rosewood	Black Rosewood	Black Rosewood	Black Rosewood	Black Rosewood	Black Rosewood	
Included Accessories					Table Stand			
Optional Accessories	Wall Bracket (Pair) Stand (Pair)	Stand (Pair)					Remote Controller Filters 6 x 10hz slopes volume phase 4 Pre-set Memories Cabinet Status Display	Reversible front pillar Hidden cable routing Real wood inserts for front pillars



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