

THE MONTANA EPS

THE MIDDLEWEIGHT CHAMPION

Made in the USA the **Montana EPS** is built with the very best materials available. The cabinet materials, drivers, cross-over components, the wiring and the dampening materials are selected for their sonic merits and construction quality. A lifetime of musical enjoyment is possible with this hand-crafted limited edition, full range loudspeaker.



THE CABINET

Spectacular, no compromise shape.

The EPS cabinet is made of HDF 80 and shaped like an asymmetrical hexagon, The internal mid-range cabinet is triangular in shape. There are several advantages to this construction method: 1) no parallel surfaces within the cabinet eliminating standing waves that would otherwise create distortion, and 2) no multiple board within the cabinet will have the same resonance frequency, effectively eliminating amplified resonance vibrations from the cabinet. To even further eliminate unwanted distorting vibrations from the cabinet, it has been reinforced with nothing less than six internal peri-metrical braces. This produces a clean more detailed sound.

THE WOOFERS

Superior performance.

The EPS utilizes a pair of custom made 8 inch ScanSpeak 21w8 Montana woofers. The 21w features stiff impregnated HPC cone specially selected for this driver. It offers better transient capacity and audible headroom, when compared to drivers with conventional cone materials due to special relations between cone stiffness and dampening.



The 21w features a very powerful magnet system with a symmetrically shaped pole piece and ScanSpeaks special patented symmetrical drive copper cap. The heavy die-cast magnesium/aluminum basket is equipped with a resistant ventilation of the spider.

Also the pole piece and the copper wire voice coil wound on a Kapton former re ventilated for high power handling and lower distortion and compression, even at high levels.

THE MONTANA EPS

The EPS cabinet is equipped with a large flared (in both ends) rectangular port on the front of the cabinet. The advantage of this porting method is the area of the port is matched exactly to the maximum output at the lowest frequencies. Thus, the EPS is capable of full bass output to below 20Hz.

THE MID-RANGE DRIVERS

Clear as crystal strong as steel.

The 4 inch ScanSpeak 13M8-Montana mid-range driver has remarkably low distortion figure and transient capability from using a Kevlar cone material. This driver has a newly developed magnet motor system with extreme magnetic flux in the air gap. It utilizes ScanSpeak's patented symmetrical drive, along with a symmetrical lathed, vented pole piece, mounted to an unusually heavy die cast magnesium basket. On top of the extremely light aluminum voice coil former and wire, we had ScanSpeak mount their 38mm fabric dome to ensure the most logical transformation of the movements from the voice coil to the dome and cone. The 13M has a long-throw excursion capability that will ensure clarity, balance and detail of outstanding qualities.

THE TWEETER

High efficiency and outstanding transient capabilities.

The EPS tweeter is the same custom made Scanspeak/Montana Revelator used in our flagship loudspeaker the Montana XPS. The specially hand made 1 inch dome features a newly developed magnet system with SD copper caps and rings that eliminates electrical phase shift. Specially designed chambers minimize the air noise and compression allowing for a faster more detailed sound.

You will hear nothing but the most accurate, detailed musical highs from the EPS because of this unique combination of engineering, material selection and craftsmanship used when making this tweeter.

THE CROSS-OVER

Perfect Transitions.

The absolute optimizing of the cabinet, baffle and volume relations along with accurate driver placement, both vertical and horizontal (mounting depth), ensures that very simple cross-over circuits can be utilized in the EPS cross-over. Thus, the advantage is very few components are placed within the signal path, enabling a cleaner more pure sound from the drivers.

THE MONTANA EPS

The EPS utilizes metalized polypropylene capacitors, by-passed with film and foil capacitors at values larger than 15 uf when actively involved in the signal flow. The capacitors in the 18 dB/oct electrical filter in series with the tweeter is of the film and foil type.

The capacitors utilized in the Montana EPS are custom manufactured for PBN Audio in order to accommodate our strict quality criteria. All internal wire in the Montana EPS is Monster Sigma M1.2 which we have chosen for its very neutral mid-range combined with a very good frequency extension.

The woofer section of the EPS crossover employs a special circuit that eliminates the second resonance peak (fH) normally associated with vented enclosures (fb is approx. 23 Hz). This ensures that the 18 dB electrical filter in front of the 2 woofers "see" a flat impedance, thereby enabling the perfect 24 dB acoustical slope needed to make a perfect transition to the two mid-range drivers. All resulting acoustical slopes are 24 dB/oct at all crossover points.

BI-WIRING

Your connection to perfection.

To get the most out of this excellent speaker, we have provided two sets of gold terminals. You must run two sets of high quality cables from your amplifier to the SPX, resulting in less interference between the two sections of the crossover.

SPECIFICATIONS

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| Frequency Range: | 20 - 22,000 Hz |
| Impedance: | Nominal 4 Ohms (3 Ohms - 11 Ohms) |
| Sensitivity: | 92 dB/2.83V/1 Meter |
| Power Handling: | 250 Watt Continuous (700 Watt Peak) |
| X-over points: | 300 Hz - 3000 Hz |
| Finish: | Custom |
| Size (HxWxD): | 53.75" x 14.25" x 15" |
| Weight: | 154 lbs each (ship 380 1lbs/pair) |
| MSRP: | \$7,995.00 (some exotic finishes may be slightly higher) |