W8
Three-way full range system

features
- Very high SPL capability
- Full frequency performance
- Arrayable trapezoid cabinet
- Three-way horn loaded system
- Constant 55° dispersion
- Switchable active/passive HF
- Suitable for flown or ground stacked use
- Load certified MAN flying points

applications
- Large scale theatre and live sound touring
- Fixed installations – multi-purpose auditoria, theatres, sports arenas

The W8 is a highly efficient 3-way touring sound reinforcement system which achieves full-frequency performance down to 80Hz. Its 55° horizontal dispersion pattern and trapezoid footprint allows it to be arrayed to suit a variety of medium and large scale theatre and live sound applications.

Each W8 enclosure houses a vertically splayed dual 12" (300mm) driver low-mid horn to cover the frequency band from 80Hz to 750Hz. The high-mid band between 750Hz and 3.5kHz is produced by a specially developed 6.5" (165mm) treated cone driver loaded by a unique toroidal phase plug and horn which maintains constant 55° horizontal dispersion over the entire operating range of the device. High frequencies are generated by a 1" (25mm) exit compression driver on a constant Q HF horn with dispersion characteristics engineered to match the high-mid.

Use of twin 12" (300mm) drivers for the low-mid allows the W8 to operate down to 80Hz. This makes it a very flexible system, capable of full-range performance on its own and making additional low-frequency enclosures a performance enhancing option rather than a necessity.

The W8 is built from multi-laminate birch plywood and is fully equipped for touring with rear castors, grille protection, top and bottom mounted flip-handles and pocket handles on the cabinet sides. It is fitted with load certified MAN flying points which link between cabinets to provide a fast and secure means of assembling an array.

The W8 can be actively driven 3-way or can alternatively be switched to 2-way operation with the high-mid to HF transition performed by an internal 3.5kHz passive crossover.
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polar plots
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W8 Horizontal Magnitude in dB SPL/2.83V at 1 meter

W8 Horizontal Beamwidth

W8 Vertical Beamwidth
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overall dimensions
The loudspeaker system shall be of the three-way type with switchable active/passive HF. The low-mid section shall consist of two 12" (300mm) cone transducers mounted on a horn flare with a precision moulded waveguide. The high-mid section shall consist of a 6.5" (165mm) cone driver mounted on a constant directivity horn flare with integral toroidal waveguide. The high frequency section shall consist of a 1" (25mm) exit HF compression driver mounted on a constant directivity horn which shall be internally protected for signals below its intended passband by a power and frequency matching network. The enclosure shall be of the heavily braced multi-laminate trapezoidal plywood type.

Performance of the loudspeaker system with its electronic controller shall meet or exceed the following criteria:

- Frequency response measured 1 metre on axis shall be 120Hz-18kHz ±3dB.
- High frequency dispersion at -6dB points shall be 55˚H x 30˚V.
- Power handling shall be 400W AES, 1600W peak Low-mid, 150W AES, 600W peak High-mid/(HF), 60W AES, 240W peak HF.
- Rated impedance shall be 8 ohms Low-mid, 16 ohms High-mid/(HF), 16 ohms HF.
- Maximum SPL measured at 1 metre on axis shall be 129dB continuous, 135dB peak.
- Dimensions (W) 556mm x (H) 1066mm x (D) 911mm (21.9ins x 42ins x 35.9ins).
- Weight 90kg (198lbs).

The loudspeaker system shall be the Martin Audio W8.