The Martin Audio W8L Longbow is an evolution of the successful W8L line array system. It brings a new level of performance to the most demanding sound reinforcement applications such as outdoor festivals, sports stadiums and the largest arenas.

In the low frequency section, the 15" (380mm) Hybrid® bass horn design is responsible for the tight, punchy and extended low frequency performance of the W8L Longbow. Development of a completely new ultra-long excursion driver gives the W8L Longbow the ability to displace almost twice the volume of air as the W8L when driven with the same input signal. This advance lifts the already formidable low-end performance to a new level and extends the low frequency -3dB point down to 35Hz.

The mid-horn of the W8L Longbow utilises 2 x 8" (200mm)/2" (50mm) coil drivers to produce 109dB at 1 metre for a 1 watt input. The twin 8" (200mm) mid-horn geometry and short, toroidal ‘donut’ phase plug work together to maintain a low curvature Wavefront and wide 90° horizontal coverage pattern of the mid frequencies right up the 2.5kHz crossover point.

Since the launch of the W8L, Martin Audio has developed a patent pending technology, which provides an exceptional degree of control over the curvature of the high frequency vertical wavefront. Our research has shown that even very long throw systems benefit from a small but specific amount of wavefront curvature. By coupling this technology with significant advances in high frequency device design we have created a quad-driver, high frequency system with the very high efficiency of 119dB (1W/1m). This allows the W8L Longbow to cope with the most adverse atmospheric conditions which can severely attenuate high frequencies over long distances. The new high frequency system also results in improved HF summation of cabinets in the array and a corresponding reduction of side lobes.

The proprietary rigging system of the W8L Longbow is quick to deploy and allows a wide range of array curvatures to be achieved as called up by the Display™ or Viewpoint™ array optimization software. W8L Longbow columns are hinged at the front for gapfree HF coverage. Inter-cabinet angles from 0° to 7.5° are set by a rotating splay bar at the rear of the enclosure.

W8L Longbow systems are designed to be powered by Martin Audio MA12K amplifiers.
W8L Longbow
Large Scale, Three-Way Line Array Enclosure

touring and theatre

polar plots
W8L Longbow
Large Scale, Three-Way Line Array Enclosure

Frequency responses

W8L Longbow Horizontal Magnitude

W8L Longbow Horizontal Beamwidth
W8L Longbow
Large Scale, Three-Way Line Array Enclosure

overall dimensions

490mm [19.29"]
156mm [6.14”]
1314mm [51.73”]
24mm [0.94”]
754mm [29.68”]
490mm [19.29”]
1314mm [51.73”]
156mm [6.14”]
W8L Longbow
Large Scale, Three-Way Line Array Enclosure

The loudspeaker system shall be of the three-way horizontally formatted line array type. The low frequency section shall consist of one 15" (380mm)/4" (100mm) ultra-long excursion cone transducer, with neodymium magnet driver, horn and reflex loaded in a Hybrid® bass system. The mid frequency section shall consist of two 8" (200mm) cone drivers coupled to a constant directivity horn using toroidal phase devices. The high frequency section shall consist of four 1" (25mm) exit HF compression drivers, with neodymium magnets, mounted on vertically coupled waveguides with a constant directivity horn. The enclosure shall be constructed of heavily braced multi-laminate plywood with all flying hardware integral and captive. The loudspeaker system shall be supplied with a wheelboard that shall attach to the front of the enclosure with slam latches to facilitate ease of deployment. The loudspeaker shall be operated with a separate dedicated electronic controller.

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 35Hz-18kHz ±3dB.
- High frequency dispersion at -6dB points shall be 90°H x 7.5°V.
- Power handling shall be 1000W AES, 4000W peak LF, 400W AES, 1600W peak MF, 200W AES, 800W peak HF.
- Rated impedance shall be 8 ohms LF/MF/HF.
- Maximum SPL measured at 1 metre on axis shall be 136dB continuous, 142dB peak LF, 135dB continuous, 141dB peak MF, 142dB continuous, 148dB peak HF.
- Dimensions (W) 1314mm x (H) 490mm x (D) 755mm (51.7ins x 19.3ins x 29.7ins).
- Weight 123kg (271lbs).

The loudspeaker system shall be the Martin Audio W8L Longbow.