AM906
Large format mid/high horn

features
- 90º x 60º large format horn
- High SPL mid/high install system
- Lightweight composite construction
- Port assisted, large format 10" (250mm) mid horn
- 1.4" (35mm) exit high frequency horn
- Constant directivity in both horizontal and vertical planes

applications
- Sports Stadia
- Arenas
- Exhibition halls

The AM906 is an extended range mid/high system which has been developed specifically for large scale install applications such as arenas and stadia. It can be used in either a bi-amplified or optional 2-way passive configuration. As a stand-alone system it provides exceptional intelligibility over its uniform 90º x 60º coverage pattern. For full-range music reproduction, it can also be used in conjunction with the AS118 low-frequency loudspeaker.

The mid horn section utilises a 10" (250mm) cone driver loaded by a unique "phase-ball" device which ensures consistent off-axis performance across the midband and avoids "beaming" at the upper end of the frequency range. Extended performance down to 135Hz @ -10dB is achieved by reflex porting the rear chamber of the driver. A low distortion motor system ensures clarity of output and consistency of tonal balance even at extreme power levels.

High frequencies are reproduced by a 1.4" (35mm) exit compression driver loaded by a 90º x 60º horn with a dispersion pattern which exactly matches the mid.

The mid and high frequency sections feature large-format, square-mouth horn designs to ensure that their constant directivity characteristics are maintained down to the same frequency in both horizontal and vertical planes.

The AM906 is constructed from a weather resistant, lightweight composite material and is equipped with comprehensive mounting points to allow for flexible install and arraying requirements.
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![Polar plots of AM906](image)

**AM906 Vertical**
- 200Hz: 1/3 oct. smoothing
- 400Hz: 1/3 oct. smoothing
- 800Hz: 1/3 oct. smoothing
- 1.6KHz: 1/3 oct. smoothing
- 3.2KHz: 1/3 oct. smoothing
- 6.4KHz: 1/3 oct. smoothing
- 12.8KHz: 1/3 oct. smoothing

**AM906 Horizontal**
- 200Hz: 1/3 oct. smoothing
- 400Hz: 1/3 oct. smoothing
- 800Hz: 1/3 oct. smoothing
- 1.6KHz: 1/3 oct. smoothing
- 3.2KHz: 1/3 oct. smoothing
- 6.4KHz: 1/3 oct. smoothing
- 12.8KHz: 1/3 oct. smoothing
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AM906 Horizontal Magnitude in dB SPL/2.83V at 1 meter

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Overall dimensions

597mm [23.49"]
506mm [19.93"]
857mm [33.73”]
370mm [14.58”]
440mm [17.22”]
440mm [17.22”]
129mm [5.09”]
177mm [6.97”]
172mm [6.77”]
### Technical Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Two-way large format mid/high horn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response (1)</td>
<td>165Hz-18kHz ± 3dB</td>
</tr>
<tr>
<td>Drivers</td>
<td>10&quot; (250mm) midrange driver</td>
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<tr>
<td></td>
<td>1.4&quot; (35mm) exit HF compression driver</td>
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<tr>
<td>Rated Power (2)</td>
<td>MF: 400W AES, 1600W peak</td>
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<tr>
<td></td>
<td>HF: 150W AES, 600W peak</td>
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<tr>
<td></td>
<td>Passive 2-way: 400W AES, 1600W peak</td>
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<tr>
<td>Sensitivity (3)</td>
<td>MF: 106dB</td>
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<tr>
<td></td>
<td>HF: 106dB</td>
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<tr>
<td></td>
<td>Passive 2-way: 107dB</td>
</tr>
<tr>
<td>Maximum SPL (calculated)</td>
<td>MF: 134dB continuous, 140dB peak</td>
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<tr>
<td></td>
<td>HF: 128dB continuous, 134dB peak</td>
</tr>
<tr>
<td></td>
<td>Passive 2-way: 133dB continuous, 139dB peak</td>
</tr>
<tr>
<td>Nominal Impedance</td>
<td>MF: 8 ohms, HF: 8 ohms</td>
</tr>
<tr>
<td></td>
<td>Passive 2-way: 8 ohms</td>
</tr>
<tr>
<td>Dispersion (-6dB)</td>
<td>90° horizontal, 60° vertical</td>
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<tr>
<td>Crossover</td>
<td>1.5kHz active or passive</td>
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<tr>
<td>Construction</td>
<td>Lightweight weather resistant composite</td>
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<tr>
<td>Connectors</td>
<td>3m flying leads</td>
</tr>
<tr>
<td>Mounting</td>
<td>Yoke or via 8 flying points to fit M12 bolts</td>
</tr>
<tr>
<td>Dimensions (W)</td>
<td>597mm x (H) 857mm x (D) 506mm</td>
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<tr>
<td></td>
<td>(W) 23.5ins x (H) 33.7ins x (D) 20ins</td>
</tr>
<tr>
<td>Weight</td>
<td>34kg (76lbs)</td>
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<tr>
<td>Options</td>
<td>Passive 2-way crossover</td>
</tr>
<tr>
<td></td>
<td>150W 70/100 volt line transformer</td>
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</tbody>
</table>

### Architectural and Engineering Specifications

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 165Hz-18kHz ± 3dB.
- High frequency dispersion at -6dB points shall be 90°H x 60°V.
- Power handling shall be 400W AES, 1600W peak MF, 150W AES, 600W peak HF.
- Rated impedance shall be 8 ohms MF & HF.
- Maximum SPL calculated at 1 metre on axis shall be 134dB continuous, 140dB peak MF, 128dB continuous, 134dB peak HF.
- Dimensions (W) 597mm x (H) 857mm x (D) 506mm (23.5ins x 33.7ins x 20ins).
- Weight 34kg (76lbs).

The loudspeaker system shall be the Martin Audio AM906.

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**Notes**

1. Measured on-axis in half space at 2 metres, then referred to 1 metre.
3. Measured in half space conditions at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
4. Measured in half space conditions at 2 metres using band limited pink noise, then referred to 1 metre.

**Trade Descriptions Act**

Due to Martin Audio’s policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.