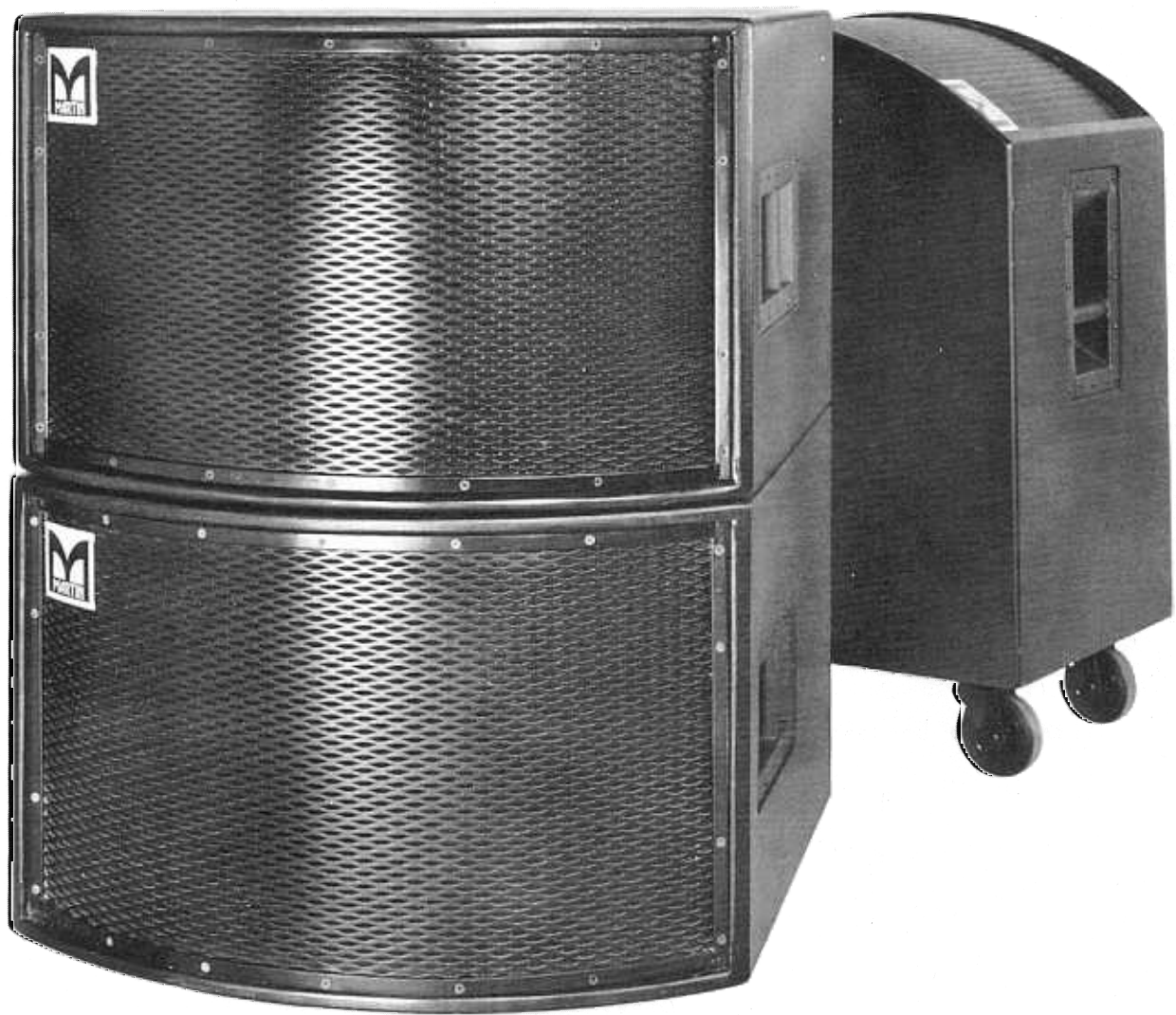


**MARTIN AUDIO**  
LONDON

**"M" SERIES MID RANGE HORNS**

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### MARTIN "M" SERIES MIDRANGE

In 1977 the Martin MH212 was introduced. A genuine industry "first", this high power dual driver midrange horn has since achieved international recognition with sales exceeding 3,000. This concept has been further developed with the introduction of the M300 and M600 mid horns.

"M" series midrange horns have ultra low distortion at high power inputs, wide bandwidth and high maximum sound pressure level. The use of a large throat area (24 sq.ins. per driver) with optimised phase plug assemblies avoids the high distortion levels associated with "compression driver" mid range devices.\*\*

A proprietary 12" cone driver is used in the M300, M600 and M700 horns. This driver features a carbon fibre reinforced cone, driven by a 3" edgewound voice coil operating in a magnetic flux of 1.7 TESLA, with a total flux of 400,000 Maxwells. This immense magnet structure endows the driver with unequalled efficiency in the 200Hz - 2000Hz mid range decade.

Full compatibility exists between the MH212, M300 and M600 as a result of using an identical horn path length for each. The acoustic output of each horn in a mixed stack thus remains in phase with the rest over the stated frequency range.

The M600 features a fibreglass horn developed from the MH212 horn. A unique moulding process facilitates the manufacture of this Y throat horn in one piece, while detail modifications to the horn profile have improved the high frequency bandwidth. This horn is used in the MH212 which remains in production for users wishing to add near identical units to an existing rig.

\*\* Throat area is defined as the area presented by the throat in the immediate proximity of the diaphragm. Advertised throat sizes are not what they seem: a typical 2" throat driver has an effective throat area of 1.26 sq.ins., while the best of the new generation of mid range compression drivers has just 8 sq.ins. of throat area. If distortion due to air non linearity in the throat region in a typical exponential mid horn having a cutoff frequency of 150Hz is to be kept below 3% at 900Hz, then the power output at this frequency should not exceed 1.3 acoustic watts/sq.ins. of throat area.

(Source: Olson, "ELEMENTS OF ACOUSTICAL ENGINEERING" Van Nostrand, 1947.)

## "M" SERIES MID RANGE HORNS

### SPECIFICATION - MH212

Horn Type .....	radial mouth, compound exponential
Frequency Response .....	200Hz - 2KHz
Recommended Crossover Points .....	250Hz, 1.5KHz
Lowest/Highest Crossover .....	250Hz, 1.5KHz
Drivers .....	2 Martin M30 30cm (12")
Impedance .....	6 ohms
Rated Power .....	150 W continuous average sine
Maximum Programme Power .....	300 W
1 watt/1 metre axial	
Sensitivity <sup>1</sup> .....	105dB
Maximum SPL at Rated Power <sup>2</sup> .....	126dB, at 1 metre
Input Connector .....	XLR 3 pin
Dimensions (WxHxD) <sup>3</sup> .....	77cmx46.6cmx80cm (30.3"x18.3"x31.5")
Weight .....	69.8Kg (154lbs)

### SPECIFICATION - M300

Horn Type .....	radial mouth, compound exponential
Frequency Response .....	180Hz - 2.8KHz
Recommended Crossover Points .....	250Hz, 1.5KHz
Lowest/Highest Crossover .....	200Hz, 2KHz
Drivers .....	1 Martin M1230 30cm (12")
Impedance .....	8 ohms
Rated Power .....	200 W continuous average sine
Maximum Programme Power .....	400 W
1 watt/1 metre axial	
Sensitivity <sup>1</sup> .....	108dB
Maximum SPL at Rated Power <sup>2</sup> .....	129.5dB, at 1 metre
Input Connector .....	XLR 3 pin
Dimensions (WxHxD) <sup>3</sup> .....	77cmx46.6cmx80cm (30.3"x18.3"x31.5")
Weight .....	60Kg (132lbs)

### SPECIFICATION - M600

Horn Type .....	radial mouth, compound exponential
Frequency Response .....	180Hz - 2KHz
Recommended Crossover Points .....	250Hz, 1.5KHz
Lowest/Highest Crossover .....	200Hz, 1.6KHz
Drivers .....	2 Martin M1230 30cm (12")
Impedance .....	4 ohms
Rated Power .....	400 W continuous average sine
Maximum Programme Power .....	800 W
1 watt/1 metre axial	
Sensitivity <sup>1</sup> .....	108dB
Maximum SPL at Rated Power <sup>2</sup> .....	132.5dB, at 1 metre
Input Connector .....	XLR 3 pin
Dimensions (WxHxD) <sup>3</sup> .....	77cmx46.6cmx80cm (30.3"x18.3"x31.5")
Weight .....	76.6Kg (169lbs)

<sup>1</sup> Measured on axis at 4 m, and referenced to 1 metre using inverse square law. Averaged 250Hz - 1.5KHz, sine wave.

<sup>2</sup> Calculated from reference sensitivity, allowing for 1.5dB power compression after 20 secs. of continuous pink noise input (250 - 1.5KHz)

<sup>3</sup> Add 12.7cm (5") to height for 100mm plate castors.