

THE EM SERIES



The EM Series is a compact range of loudspeaker systems designed for professional applications. The Series consists of four full-range trapezoid enclosures, two dedicated sub-bass enclosures and two advanced controllers.

The EM Series is designed to fulfil the requirement for high quality loudspeaker

systems for installations in all types of venues, discotheques, theatres, conference centres, churches, in fact, all sound reinforcement situations.

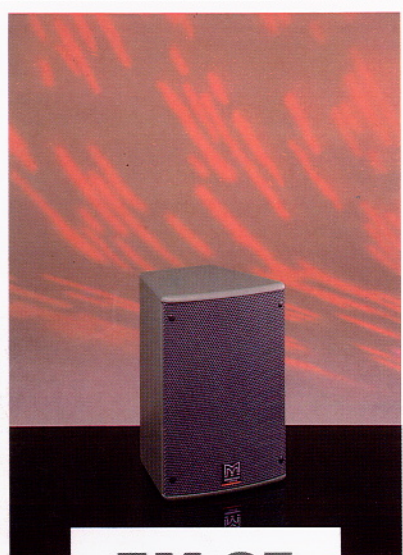
The EM Series is versatile, simple to set up, secure in use and cost effective. The design process combines over 20 years of experience in producing the finest sound

reinforcement systems and new research into modern installation requirements.

Supported by a world wide, highly trained, distributor network, the EM Series meets the needs of consultants, contractors, users and, most importantly, the listener.

T H E E M

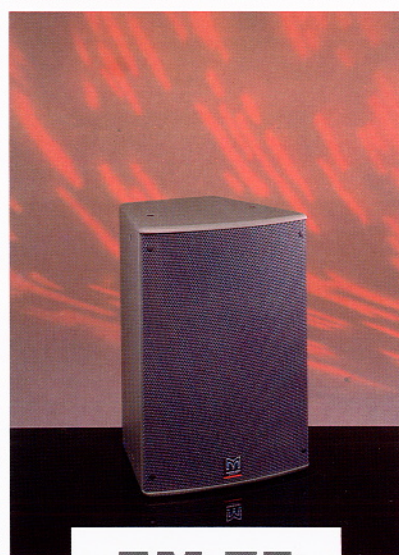
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EM 25

The EM 25 is an ultra compact, two-way passive, trapezoid loudspeaker system. Of tiny dimensions and high power handling, it is designed to be used as a foreground or background system. The EM 25 is full range and can be used with EM Series sub-bass systems.

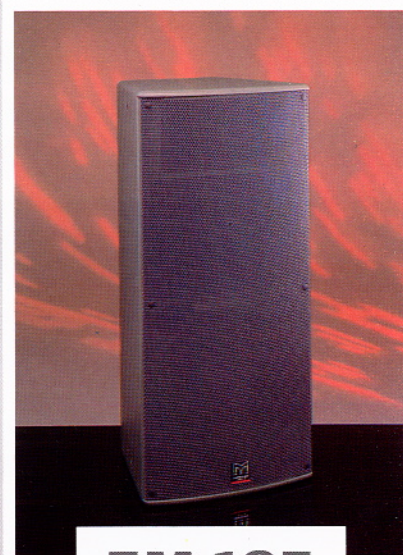
The EM 25 is equipped with a 8", long excursion bass driver, and a small, ferrofluid cooled 1" compression driver on a newly developed 70° x 50° constant directivity horn. Utilising a high power passive crossover network, the EM 25 can be used with or without the EMX 1 system controller. The enclosure is fitted with mounting points for Omnimount fittings on the rear and base.



EM 75

The EM 75 is a compact, two-way passive, trapezoid loudspeaker system. It is designed to be used where high power handling and small dimensions are required in a full-range system. The EM 75 can be used with EM Series sub-bass systems via the EMX 1 system controller.

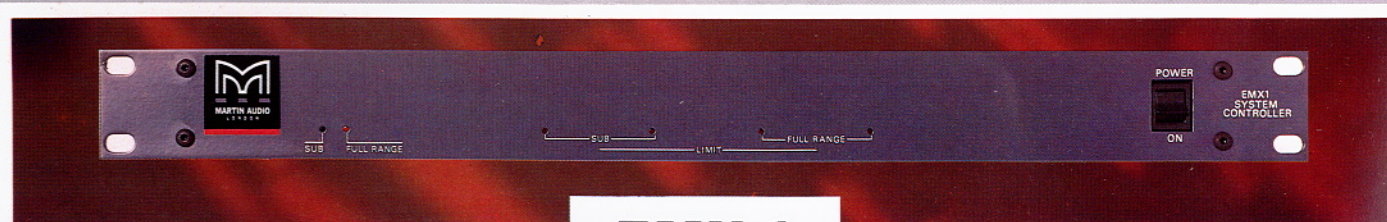
The EM 75 is equipped with a high power handling, 12" cone bass drive unit with a 2" high temperature coil. The high frequency device is a 1" compression driver mounted on a 70° x 40° horizontal constant directivity horn. The enclosure is fitted with ten M8 flying inserts, which can be used with EM Series flying accessories, and a pole mounting socket.



EM 105

The EM 105 is a three way, bi-amp trapezoid loudspeaker system. It is compact in size and extremely efficient. It combines a superior dynamic performance with smooth natural reproduction. The EM 105 is designed to be used with the EMX 2 system controller in either full-range mode, or with EM Series sub-bass. The EM 105 is ideal for high power array systems for larger scale sound reinforcement, and high power live or recorded music systems.

The EM105 is equipped with a 12" cone bass driver with very long term power handling. The mid range 7" cone driver is mounted in a custom designed 70° x 40° mid range horn matching the dispersion pattern from the high frequency 1" compression driver. A high power passive crossover integrates the mid and high frequency drivers, and the EMX 2 system controller provides an active 450Hz crossover. 12 x M8 flying inserts provide maximum flexibility in installation and flying via EM accessories.



EMX 1

The EMX 1 is an advanced system controller designed to be used with the loudspeaker systems within the EM Series. It provides system equalisation and limiting functions in full-range mode, and an active crossover for the use with EM sub-bass systems. The

EMX 1 is designed to provide maximum user flexibility whilst remaining tamperproof.

Front panel LED indicators give a visual indication of limiter status and full-range or sub-bass operation. System balance control is accessed through

the top panel by removing the unit from the rack. Configuration controls are located within the unit and allow the controller to be set up for operation with EM 25, EM 75 and either of the EM Series sub-bass systems.

S E R I E S

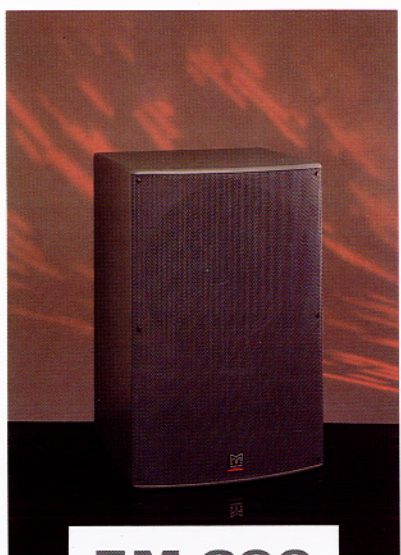
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EM 185

The EM 185 is a three-way, bi-amp loudspeaker system. It is compact in size yet extremely powerful and efficient. Using the same mid-high components as the EM 105, the EM 185 has a very high power bass section with a newly developed driver. The EM 185 is designed to be used in either full-range or sub-bass modes via the EMX 2 controller.

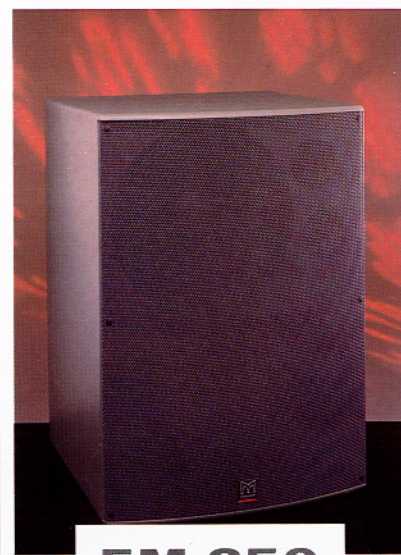
The EM 185 is equipped with a very efficient, high power 15" cone driver. The mid range 7" cone driver is mounted in a custom designed 70° x 40° horn which matches the dispersion of the high frequency 1" compression driver. A high power passive crossover integrates the mid and high frequency drivers. 12 x M8 flying inserts provide maximum flexibility in installation and hanging via EM Series accessories.



EM 200

The EM 200 is a compact sub-bass system for use with EM Series full-range systems in situations where extended low frequency output is required. The EM 200 is a dedicated sub-woofer and is designed to be used on the ground. It is particularly suited to discotheque, live music and other larger scale sound reinforcement applications.

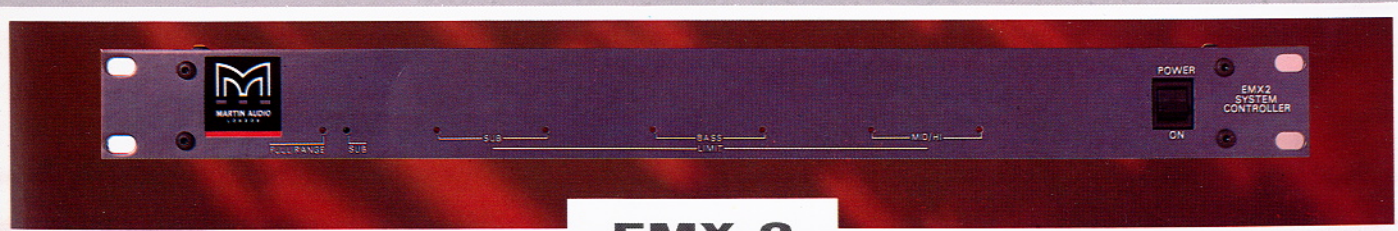
Heavily braced, the EM 200 is constructed around a well proven high power handling 18" cone driver. Optimally vented, it is fitted with a tough steel grille to protect from damage. The EM 200 is designed to be used via the EMX 1 or EMX 2 system controllers which provide an active crossover frequency of 120Hz and system limiters and equalisation.



EM 250

The EM 250 is a very high power compact sub-bass system for use with EM Series full-range systems in applications where increased low frequency output is required. The EM 250 is designed to be used on the ground, and is capable of very high bass output with increased system headroom.

The EM 250 is equipped with two new 15" drive units and is optimally tuned to provide system output levels not normally associated with such a compact cabinet. The EM 250 is designed to be used via the EMX 1 or EMX 2 system controllers which provide an active crossover frequency of 120Hz and system limit and equalisation.



EMX 2

The EMX 2 is a high specification system controller designed to be used with the loudspeakers in the EM Series. It provides active crossover functions for both full-range and sub-bass modes. Additionally it provides system equalisation and limit functions across

three stereo bands. The EMX 2 is designed to provide maximum user flexibility whilst remaining tamperproof.

Front panel LED indicators give a visual indication of unit operating status, and all controls are accessed in a similar way to the EMX 1. Also like the

EMX 1, the limit functions are controlled by innovative amplifier sense circuits, continuously monitoring limiter thresholds. The EMX 2 can be configured to operate with either the EM 105 or EM 185, and both the sub-bass systems in the EM Series.

S P E C I F I C A T I O N S

	EM 25	EM75	EM 105	EM 185	EM 200	EM 250
TYPE	Ultra compact, two-way passive	Compact, two-way passive trapezoid	Compact, three-way trapezoid	Compact, three-way trapezoid	Compact, sub-bass system	Compact, dual-driver sub-bass system
FREQUENCY RESPONSE ($\pm 3\text{dB}$)¹	70Hz to 18kHz	60Hz to 18kHz	60Hz to 18kHz	55Hz to 18kHz	40Hz to 120Hz	40Hz to 120Hz
RATED POWER (AES, Peak)²	75W, 300W 70 - 700Hz	150W, 600W 60 - 600Hz	LF: 200W, 800W MF/HF: 75W-300W	LF: 250W, 1000W MF/HF: 75W-300W	300W, 1200W 40 - 400Hz	500W, 2000W 40 - 400Hz
SENSITIVITY (1 watt / 1 metre)³	94dB	98dB	LF: 99dB MF/HF: 104dB	LF: 100dB MF/HF: 104dB	96dB	99dB
MAXIMUM SPL⁴	111dB continuous 117 dB peak	118dB continuous 124dB peak	123dB continuous 129dB peak	124dB continuous 130dB peak	119dB continuous 125dB peak	124dB continuous 130dB peak
RECOMMENDED AMPLIFIER (into 4 ohms)	150 - 250W	400 - 550W				
DISPERSION (H x V)	70 deg x 50 deg	70 deg x 40 deg	70 deg x 40 deg	70 deg x 40 deg		
NOMINAL IMPEDANCE	8 ohms	8 ohms	LF: 8 ohms MF/HF: 16 ohms	LF: 8 ohms MF/HF: 16 ohms	8 ohms	4 ohms
BASS	200mm (8")	300mm (12")	300mm (12")	380mm (15")	460mm (18")	2 x 380mm (15")
MID			175mm (7")	175mm (7")		
MID HORN			70 deg x 40 deg	70 deg x 40 deg		
HIGH FREQUENCY	25mm (1") ferrofluid cooled	25mm (1") compression driver	25mm (1") compression driver	25mm (1") compression driver		
HIGH FREQUENCY HORN	70 deg x 50 deg CD horn	70 deg x 40 deg CD horn	70 deg x 40 deg CD horn	70 deg x 40 deg CD horn		
CROSSOVER	3kHz passive	1.5kHz Passive	450Hz active 2.2kHz passive	450Hz active 2.2kHz passive	120Hz active (via EMX 1 / EMX 2)	
ENCLOSURE	12 litre, vented	40 litre, vented	59 litre, vented	103 litre, vented	146 litre, vented	203 litre, vented
FINISH	Textured grey paint					
GRILLE	Perforated steel, dark grey 48% free air flow					
CONNECTOR	1 x Neutrik Speakon NL4MPR					
FITTINGS	2 x Omnimount 75 mounting plates	10 x M8 inserts 1 pole mounting	12 x M8 inserts	12 x M8 inserts		
DIMENSIONS (WxHxD) mm	265 x 391 x 253	379 x 547 x 360	379 x 818 x 360	460 x 932 x 433	493 x 800 x 520	575 x 816 x 588
WEIGHT	10.8kgs	22.5kgs	31.5kgs	42kgs	37.5kgs	58.5kgs

	EMX 1	EMX 2
Gain	0dB at 1kHz	
Hum and Noise	-90dBm 20Hz - 20kHz	
Inputs	2 x XLR	6 x XLR
Output Impedance	<75 ohms electronically balanced	
Maximum Input	+ 20dBu	
Maximum Output	+ 20dBu (set by limiters)	

NOTES: 1. Measured on-axis in half space at 2 metres, then referred to 1 metre. 2. AES Standard ANSI S4.26-1984 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.

Trades 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 the state of the art of sound reinforcement by combining in-depth product and field application research with advanced manufacturing techniques. Every Martin product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

	EMX 1	EMX 2
Electronic Crossover Frequencies	120Hz (sub-bass)	120Hz (sub-bass) 450Hz
Front Panel Indicators	Power, 4 x limit, full-range/sub	Power, 6 x limit, full-range/sub
Rear Panel Controls	Full-range/sub-bass, mains supply	
Limiters	4 x band limiters	6 x band limiters
Sense Inputs	4 pairs banana	6 pairs banana
Mains supply	100/110/220/240 V AC 50/60Hz	
Dimensions	485mm x 45mm x 170mm	
Weight	3.2kg	3.9kg



ACHIEVING A BALANCE WITH POWER

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