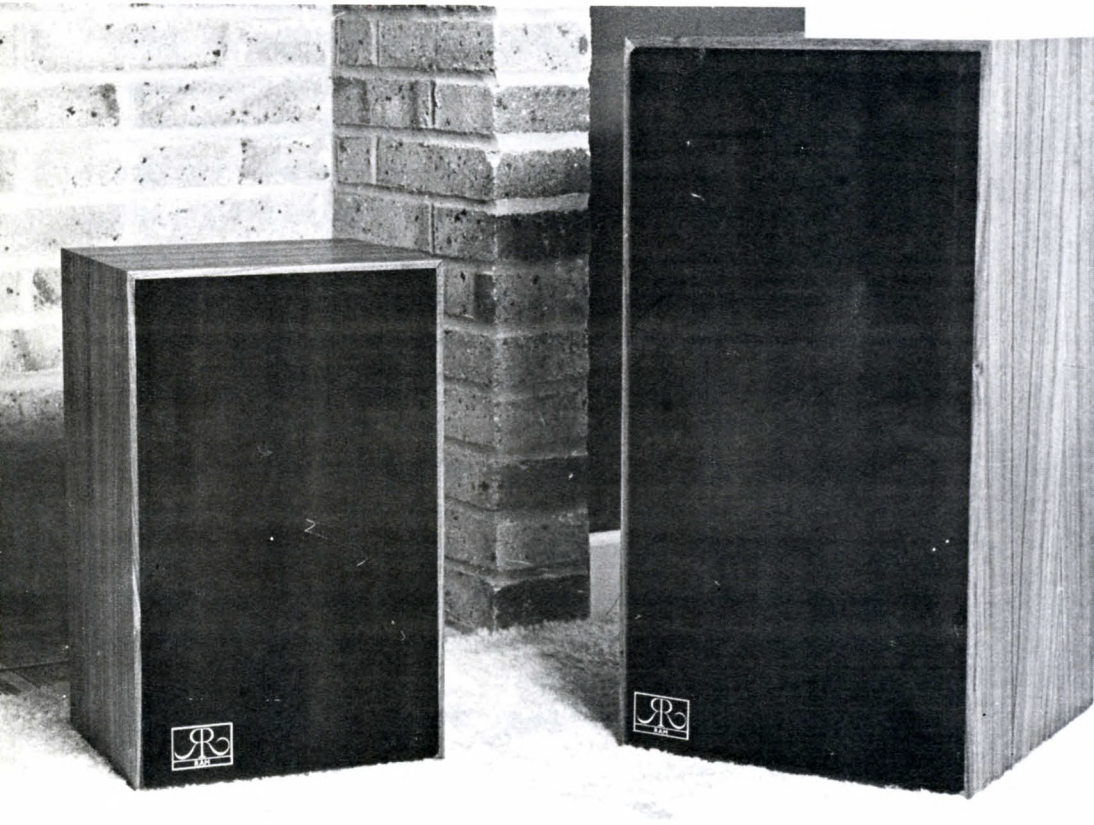
RAM

ram 1

ram bookshelf monitor



monitor loudspeakers

The RAM 1 and RAM Bookshelf Monitor have been designed to attain new standards of musical reproduction, relative to enclosure size, both for the professional and domestic user. Achieving this objective has involved making qualitative advances in the elimination, as far as possible, of the known types of distortion (doppler, intermodulation, resonance, etc.), improving transient response, and generally reducing levels of coloration and loudspeaker inaccuracies. In turn, this has meant carefully examining current levels of drive-unit technology, principles of cabinet construction, loading techniques, new types of damping materials, and crossover theory. Both the RAM 1 and RAM Bookshelf Monitor exemplify the results of our investigations into these problems of loudspeaker performance.

So, for example, RAM 1 and RAM Bookshelf Monitor cabinets are constructed from high density chipboard, veneered both internally and externally to prevent unwanted flexing at low frequencies due to stress imbalances, which can audibly contribute to various types of distortion and low-frequency 'coloration' effects. The cabinets are then laminated with layers of bitumen and lined with BBC-specified anechoic-grade foam in order to obtain maximum damping of spurious contributions from the cabinet itself, and the absorption of unwanted rearward radiation from the bass-mid driver.

The dividing networks of both the RAM 1 and RAM Bookshelf Monitor employ close tolerance, high-power components which achieve excellent production uniformity and ensure that the network itself does not contribute any audible distortion effects (through core saturation, for example). Roll-off characteristics

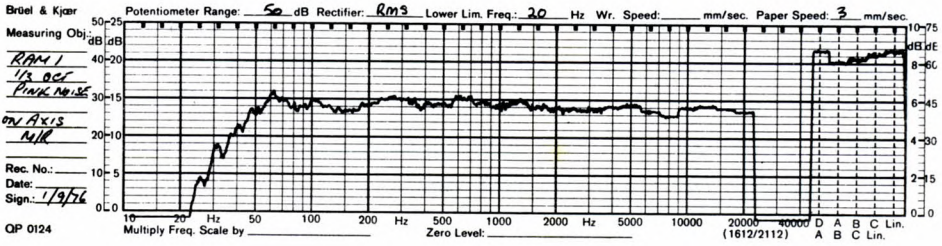
are of the high-slope type and optimised to accurately match the performance characteristics of the drive units used in common between the RAM 1 and Bookshelf Monitor. The dividing network has been specifically designed so that cone break-up effects and unit resonances are thoroughly suppressed.

The bass-mid driver used in both models is an 8-inch moving-coil unit, using a synthetic cone (Bextrene) critically damped with visco-elastic materials. Careful termination of the cone with a high-loss, inverted PVA roll surround, together with the use of a high-power former, coil, and magnet assembly achieves not only exemplary distortion and transient characteristics, but also achieves generally lower levels of 'subjective' coloration compared to other existing Bextrene units. The very low free-air resonance of the unit, together with the smoothness of amplitude response, and the exceedingly stable polar response, all provide evidence for this view.

High frequencies in the RAM 1 and Bookshelf Monitor are handled by a 25 mm dome radiator of advanced technological design. High frequency response in both models is notable for its extension of response (well beyond the limits of audibility), wide off-axis dispersion and very 'sweet' sound.

The RAM 1 and RAM Bookshelf Monitor offer the audiophile, enthusiast and professional alike, loudspeakers characterised by a transparent and neutral 'sound', together with high power handling and above average sensitivity.

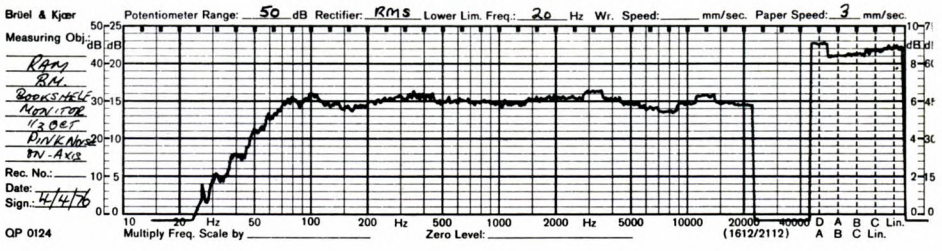
RAM 1



SPECIFICATIONS FOR RAM 1 AND RAM BOOKSHELF MONITOR

	RAM 1	RAM BM
Units:	1 × 200 mm plastic cone, Plastiflex-doped, high loss PVA surround. 1 × 25 mm dome HF radiator.	1 × 200 mm plastic cone, Plastiflex-doped, high loss PVA surround. 1 × 25 mm dome HF radiator.
System loading:	Tuned resistive port.	Tuned open port.
Suggested amplifier matching:	15–50 watts per channel.	12–50 watts per channel.
Nominal impedance:	4–8 ohm.	4–8 ohm.
Frequency response limits:	±2 db. 55 Hz–22 kHz.	±2 db. 70 Hz–22 kHz.
Sensitivity:	6 watts produces 90 db.	6 watts produces 91 db. (Measured on-axis, 1 metre distance)
Dimensions:	23″ × 13″ × 12″ wide.	16″ × 9″ × 10″ wide.

RAM BOOKSHELF MONITOR



accuracy in sound design

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