

KEF REFERENCE SERIES
MODEL 102.



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Since the earliest days of high quality sound reproduction, there has existed, in professional and domestic fields, the need for compact speaker systems capable of very high quality sound. Many such speakers exist but, until now, these have generally involved unacceptable restrictions either of sensitivity, bass extension or maximum loudness capability. The new KEF Model 102, with KUBE active low-level equaliser has changed all that. For Model 102 is an ultra compact speaker system that is efficient, easy to drive, and has bass extension to 40 Hz (-6 dB, $Q = 0.5$) with a maximum spl of 107 dB.

It is the ideal model for locations where space is at a premium. Physically very compact it may be, but KEF's advanced 'hybrid' dividing network technique comes into its own, creating the character of a full size design, with little compromise in power handling, sensitivity, or loudness capability. Model 102 is the smallest of the new Reference Series loudspeakers.

Model 102 is supplied complete with its own dedicated version of the KEF KUBE low-level equalisation system. This provides unusually extended low-frequency reproduction without the usual reduction in sensitivity normally associated with passive systems of this size. KUBE offers the user an additional, important benefit. It gives him the freedom to site the loudspeaker wherever it is most convenient, using KUBE's Contour control to achieve a natural balance, compensating for room boundary reinforcement effects by adjusting the level of bass output relative to midrange and high-frequency.

Model 102 uses a newly developed 6" (160cm) bass/midrange driver with a polypropylene cone. Even when operated with KUBE in 'bass extend' mode, this unit has more than enough power handling capability allied to the traditional KEF virtue of low colouration, to give life-like reproduction on all types of programme.

High frequencies are handled by the refined,

ferro-fluid cooled T33 high-frequency unit, also high in sensitivity and power handling, which features in most of the Reference Series models, including the new top-of-the-line Model 107.

As in all KEF's hybrid crossover designs, KUBE provides active system response shaping, thereby maximising the system's sensitivity and dynamic range. The passive network, within the loudspeaker enclosure, divides the incoming signal between the two drive units; 'conjugate' load matching ensures that the impedance seen by the amplifier is entirely resistive and easy to drive at all frequencies, so extending the

usable power output of even the most modestly specified amplifier. All components used in the dividing network have very high power handling capability, ensuring linearity even at high levels, with low distortion throughout.

Cabinet coloration is a major problem with all loudspeakers. Advanced computer modal analysis techniques have been used to develop an enclosure which minimises unwanted panel vibrations.

The Reference Series Model 102 has unusually wide bandwidth for its size allied to good sensitivity. Cabinet veneers are in real wood; drive units, components and finished networks are all carefully matched in pairs prior to assembly, all drive unit and system data being stored on computer. This database enables future service replacements which

precisely match the original performance, to be selected if required. Model 102's ability to go loud and sound 'big' must be heard to be appreciated.

Model 102 is an impressive, near universal, all-rounder; it also just happens to be usefully small.



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Frequency Response	65Hz – 20kHz ± 2 dB at 2m ref axis (-6 dB at 40Hz, $Q = 0.5$).
Directional Characteristics	Within 2dB of response on axis up to 15kHz for $\pm 10^\circ$ vertically, up to 10kHz for $\pm 30^\circ$ horizontally.
Maximum Output	107dB spl on programme peaks under typical listening conditions.
Enclosure Volume	10.5 litres
Amplifier Requirements	Suitable for use with amplifiers capable of providing between 50 and 200W into 4 ohms resistive load.
Nominal Impedance	4 ohms, resistive 200Hz – 20kHz.
Characteristic Sensitivity Level	92dB spl at 1m on reference axis for pink noise input of 2.83 V rms, band limited 50Hz – 20kHz (anechoic conditions).
Weight	6.8 kg (15 lb).
Dimensions	330 (h) x 208 (w) x 263 (d) mm. 13" x 8.2" x 10.3"
Height of Origin of Reference Axis	200mm (7.9") above base of cabinet (not including feet).
Angle of Reference	0° from horizontal.

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Description	Active equaliser.
Controls	Contour: Continuously variable shelf control allows boost or attenuation below c. 200Hz. Extension: Push button control allows -6 dB point to be set to 40 Hz or 60 Hz. Q factor = 0.5. Tape Monitor: Push button controls tape input/output via rear sockets.
Rear Panel Connections	Signal Input/Output and Tape Input/Output via gold plated phono (RCA) sockets.
Input Impedance	51 Kohms.
Source Impedance	100 ohms.
Signal to Noise Ratio	95 dBA ref 1V rms.
Power Supply	Factory set for nominal 110 or 220 V 50-60Hz.
Weight	0.5kg 1.1lb.
Dimensions	52 (h) x 100 (w) x 140 (d) 2.0" x 3.9" x 5.5"

NOTE. Further information on the technology incorporated in the Reference Series Loudspeakers is contained in the brochure "The KEF Reference Series", available from your Dealer, or direct from KEF (part No: PL 544 EN 01).

KEF reserve the right to incorporate developments and amend specifications without prior notice in line with continuous research and product improvement.



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