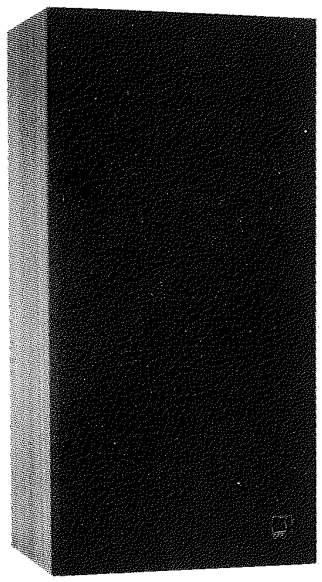
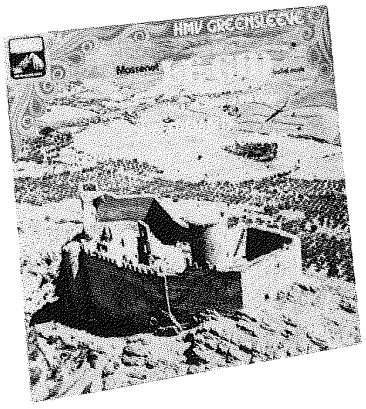
KEF CANTOR III





Cantor III is a compact 2-way loudspeaker system incorporating a passive bass radiator to extend low frequency response. Construction and drive units complement resemble that of Chorale III from which it is derived. Styling is simple and restrained with smart front baffle graphics, matching contemporary trends in decor for those who prefer to listen with the grille removed.

Cantor III is intended for those applications which demand small unobtrusive loudspeakers without sacrifice of musical quality or restriction of frequency range.

Optimisation of parameters in the acoustic circuit comprising low frequency driver, passive bass radiator and enclosure extends useful bass output below 50Hz. Frequency response is nominally flat to 70Hz when Cantor III stands clear of room walls. Placing the speakers against a wall will extend the response flat down to 60Hz. Better stereo images will always be perceived however, when the loudspeaker is mounted on stands clear of large flat surfaces. This is because sound diffracted to the rear of the loudspeakers helps to create a more natural, airy effect and an impression of depth due to images formed behind the loudspeakers, unconfused by reflections from a wall.

Its efficiency is medium to high at 87dB/W/m and it will safely handle power from a 60W amplifier without distortion or damage under audiophile (see over) operating conditions. The optimum balance of performance, size and power requirement proves once again the importance of KEF's engineering approach to loudspeaker design and manufacture.

Cabinet work is finished in top quality simulated walnut with brown textile grille.

See overleaf for full technical description and performance data.

Digital Recordings

Cantor III is perfectly suitable for reproducing compact disc and other types of digital recording with full dynamic range.

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Cantor III is a two-way, three unit, system whose driven bass/mid range unit is of 160mm nominal diameter. The specially contoured fibre cone is plastics coated to damp resonances and is fitted with a convex PVC Roll surround and a two layer 25mm voice coil.

In the Cantor III systems a 200mm passive radiator is used to extend the bass smoothly with a low distortion.

Compact reflex systems suffer from non-linearities due to air turbulence in the port which must of necessity be very small in diameter, and to extend bass response significantly in a sealed box results in a loss of efficiency. The use of a passive radiator in a compact system compromises neither distortion nor efficiency. KEF's 'total system' design philosophy ensures that all such parameters are optimised within the design brief for the system concerned.

The high frequency unit is of 30mm nominal diameter. An impregnated textile dome is driven by a two layer coil 25mm in diameter wound on a high temperature resistant former using resin based adhesives. Ferrofluid injected into the air gap cools the voice-coil ensuring smooth high frequency response and reliability in service. Fluid cooling helps minimise compression effects caused by coil heating which result in variations in high frequency response at high volume levels.

The cabinet, constructed from high density chipboard, provides bass loading with 17 litres of air in combination with a passive radiator. Drive unit and cabinet parameters are carefully matched to optimise low-frequency performance, with panel dimensions calculated to minimise resonant modes leading to unwanted colouration. Its exterior is finished in high quality PVC foil with a knitted textile grille — available in simulated walnut or black ash.

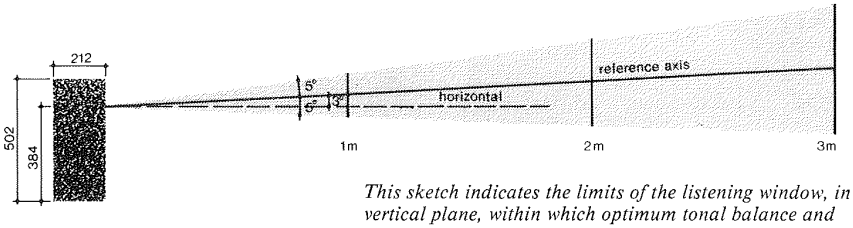
SPECIFICATION	TYPE SP 3029
Frequency range:	58Hz to 20kHZ ± 3dB at 2m on reference axis (–10dB at 43Hz and 30kHz)
Directional characteristics:	within 2dB of response on reference axis up to 20kHz for ± 5° vertically up to 12kHz for ± 20° horizontally
Maximum output:	107dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	87dB spl at 1m on reference axis for pink noise input of 1W
Distortion:	Measured at 1m on reference axis at mean spl of 90dB, anechoic conditions Second harmonic: less than 1% from 90Hz to 20kHz Third harmonic: less than 1% from 40Hz to 20kHz
Enclosure type:	Mechanical reflex
Internal volume:	17 litres
Nominal impedance:	8 ohms
Maximum amplifier power: (see explanatory note*)	*normal* 80W, *audiophile* 100W
Minimum amplifier power:	*normal* 10W
Weight:	6.8kg
Dimensions	502(h) × 247(w) × 212(d)mm

**Amplifier Power*

The maximum power input that can be applied safely depends on the type of programme and conditions of use.

Normal use: programme with limited dynamic range, e.g. VHF transmissions, pre-recorded tape cassettes, compressed pop records, etc.
Conditions of use include loud listening levels with power amplifier often driven into clipping and tone controls or equaliser used to significantly boost low and high frequencies.

Audiophile use: reproduction of wide dynamic range recordings, e.g. direct cut discs, compact discs and digital tapes.
Conditions of use include 'flat' replay characteristics with only occasional overloading of power amplifier.



This sketch indicates the limits of the listening window, in the vertical plane, within which optimum tonal balance and stereophonic effects will be perceived.

For best results the reference axis should be directed towards the listeners. It is therefore preferable to raise the loudspeaker above the floor. KEF stand ULS 40 is suitable for this purpose.

KEF reserves the right to incorporate developments and amend the specifications without prior notice, in line with continuous research and development.

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