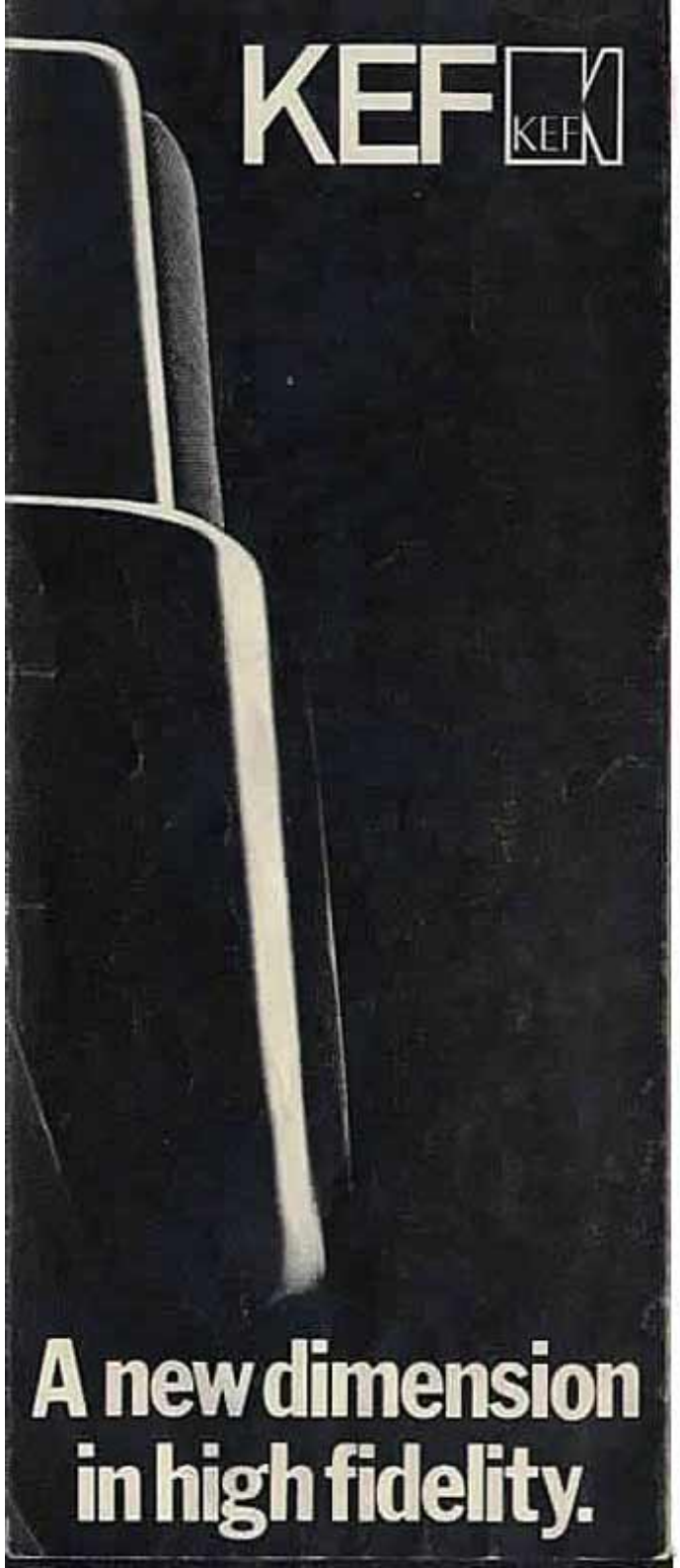

The KEF Philosophy

Specialisation has been the key to the success of the KEF loudspeaker range, for they have pioneered many aspects of loudspeaker design which have since been adopted throughout the industry.

These include:
composite diaphragms in metal and plastic
computer designed dividing networks
the application of digital measurement techniques
electronic overload protection
computerised production control

Now for the first time, with the KEF Reference Series, it may be claimed with confidence that the standard of performance achieved by the speaker system designer is realized in full for each and every purchaser, and is not just confined to the specially prepared models frequently used in demonstration and press reviews.

The advanced mathematical concepts and computer technology which makes the production of KEF Reference Series possible were originally pioneered by KEF as a research project started in 1971. Its subsequent refinement and application both to product development and production, with the associated massive investment in computers, measuring and production facilities, is evidence of KEF's determination to produce truly accurate, calibrated domestic loudspeakers in continuous production quantities.

Based on accurate measurements and a thoroughness of production control which was formerly possible only in laboratory conditions, these innovative techniques combine in achieving a standard of performance to satisfy the most stringent requirements imposed for professional monitoring purposes. In particular, the ability to produce loudspeakers in pairs that are closely matched for sensitivity and frequency response ensures not only consistent tonal balance, but also remarkably sharp and lifelike stereo imaging with appropriatley recorded programme material.

Since the time KEF started manufacturing loudspeakers in 1961, the accoustic benefits of its products have always been demonstrable. Initially, KEF's use of advanced materials for the construction of drive unit diaphragms allowed the creation of products capable of broader bandwidth, greater clarity and improved consistency than was possible with conventional materials.

Now, at any volume level – up to concert hall dynamics – the KEF Reference Series offers unsurpassed realism, accurate tonal balance and stereo perspective over a wide area. Even when using high power amplifiers capable of delivering the full dynamic range captured by modern recording tehniques, the systems are protected from damage by a unique self-powered protection device (S-STOP) which ensures that accidental overload cannot damage vital components or disturb system calibration.

Chorale III

Chorale III is a very compact two-way loudspeaker of medium efficiency. Its exceptionally small size makes it an ideal choice for bookshelf installations and it is easily accommodated even when space is very restricted. Its design is so well optimised that it outperforms loudspeakers two or three times larger. The cabinet is finished in simulated walnut veneer with a brown textile grille.

Specification:	SP3022
Frequency range:	79Hz to 20kHz± 3dB at 2m on reference axis (–10dB at 50Hz and 30kHz)
Maximum output:	105dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	86dB spl at 1m on reference axis for pink noise input of 1W
Programme rating:	60W
Nominal impedance:	8 ohms
Weight:	4.7kg
Dimensions:	370 (h) × 220 (w) × 180mm (d)

Coda III

Coda III is a two-way compact system of medium efficiency which produces amazing sound quality from such a small enclosure. It is easily accommodated in smaller homes and can be used on shelves or stands. Coda III incorporates important new technical features with a pleasing front baffle colour scheme to suit contemporary trends in domestic decor.

Specification:	SP3016
Frequency range:	60Hz to 20kHz± 3dB at 2m on reference axis (-10dB at 50Hz and 30kHz)
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
Programme rating:	100W
Nominal impedance:	8 ohms
Weight:	6.56kg
Dimensions:	470 (h) × 280 (w) × 212mm (d)

Cantor III

Cantor III is a compact two-way loudspeaker of medium efficiency fitted with a passive bass radiator which maintains low frequency response well below 60 Hz. Its astonishing sound quality and general performance are equalled only by expensive systems more than four times larger. The cabinet is finished in simulated walnut with a brown textile grille.

Specification:	SP3029
Frequency range:	58Hz to 20kHz± 3dB at 2m on reference axis (-10dB at 43Hz and 30kHz)
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
Programme rating:	100W
Nominal impedance:	8 ohms
Weight:	6.8kg
Dimensions:	502 (h) × 247 (w) × 212mm (d)

Carina II

Carina II is a two-way, three drive unit loudspeaker of high efficiency capable of producing high quality sound loud enough to satisfy the needs of those who like to listen at realistic, live volume levels.
The unusual feature in which the high frequency unit is mounted centrally between twin bass units provides high efficiency due to acoustic coupling at low frequencies and remarkably precise stereo imaging due to the symmetrical sound radiation pattern.

Specification:	SP3017
Frequency range:	55Hz to 20kHz± 3dB at 2m on reference axis (–10dB at 45Hz and 30kHz)
Maximum output:	110dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	89dB spl at 1m on reference axis for pink noise input of 1W
Programme rating:	150W
Nominal impedance:	8 ohms
Weight:	9.4kg
Dimensions:	600 (h) × 300 (w) × 249mm (d)

Caprice II

Caprice II is a high-quality bookshelf loudspeaker offering outstanding realism from a compact, two-way enclosure. The system can be easily located to give good tonal balance and exceptionally sharp, clear stereo images in generous-sized rooms.
Caprice II is designed to operate with amplifiers giving up to 100 watts output per channel but can provide volume levels for domestic use with as little amplifier power as 15 watts per channel.
The cabinet is finished in simulated walnut veneer with a brown textile grille.

Specification:	SP3001
Frequency range:	60Hz to 20kHz± 3dB at 2m on reference axis (–10dB at 42Hz and 30kHz)
Maximum output:	106dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	86dB spl at 1m on reference axis for pink noise input of 1W
Programme rating:	100W
Nominal impedance:	8 ohms
Weight:	8.3kg
Dimensions:	470 (h) × 280 (w) × 217mm (d)

KEF

KEF ELECTRONICS LTD.
Tovil Maidstone
Kent ME15 6QP
Telephone: 0622 672261
Telex: 96140

Part No. PL3001EN01 Printed in England

Carlton III

Carlton III is a two-way floor standing loudspeaker of medium efficiency fitted with a passive bass radiator which extends the low-frequency response. The active drive units are of very high quality construction using special diaphragms for extremely low colouration. It is suitable for use with large amplifiers and will satisfy listeners who appreciate the most refined sound quality at realistic, live volume levels.

Specification:	SP3020
Frequency range:	38Hz to 20kHz± 3dB at 2m on reference axis (–10dB at 29Hz and 30kHz)
Maximum output:	108dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	86dB spl at 1m on reference axis for pink noise input of 1W
Programme rating:	150W
Nominal impedance:	8 ohms
Weight:	12kg
Dimensions:	700 (h) × 315 (w) × 280mm (d)

Reference Series Mod. 101

One of the smallest loudspeakers available that can be truly called high fidelity. The sound quality from Model 101 is really amazing. It is recommended for small apartments or for "the other room". Model 101 incorporates the latest indrive unit technology, computer matched for rock steady imaging. S-STOP electronic overload protection guards against expensive mishaps.

Specification:	SP1122
Frequency range:	90Hz to 30kHz± 2dB at 2m on reference axis (–10dB at 47Hz and 40kHz)
Maximum output:	100dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	81dB spl at 1m on reference axis for pink noise input of 1W (anechoic conditions)
Programme rating:	100W
Nominal impedance:	8 ohms
Weight:	6.58kg
Dimensions:	348 (h) × 180 (w) × 197mm (d)

Reference Series Mod. 103.2

This exceptionally fine loudspeaker is widely regarded as one of the best compact domestic monitors ever produced. It is often used by professional for outside recording sessions. Tonal blanace is very accurate and precise stereo imaging is assured by computer matched drivers. S-STOP electronic overload protection obviates accidental damage.

Specification:	SP1121
Frequency range:	60Hz to 20kHz± 2dB at 2m on reference axis (–10dB at 37Hz and 30kHz)
Maximum output:	106dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	86dB spl at 1m on reference axis for pink noise input of 1W (anechoic conditions)
Programme rating:	150W
Nominal impedance:	8 ohms
Weight:	8.6kg
Dimensions:	506 (h) × 265 (w) × 249mm (d)

Reference Series Mod. 105.4

A derivative of the famous Model 105 maintaining the same standards of faithful reproduction with only slightly reduced bass performance.
Optimum stereo imaging and tonal balance are achieved by adjusting the position of the head assembly with the aid of an optical alignment device.
An adjustable peak level indicator is also incorporated.
All drive units are computer-matched to close tolerances.
S-STOP electronic overload protection obviates damage due to accidental overloading.

Specification:	SP1120
Frequency range:	55Hz to 20kHz± 2dB at 2m on reference axis (-10dB at 30Hz and 30kHz)
Maximum output:	108dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	86dB spl at 1m on reference axis for pink noise input of 1W (anechoic conditions)
Programme rating:	200W
Nominal impedance:	8 ohms
Weight:	22kg
Dimensions:	936 (h) × 350 (w) × 380mm (d)

Reference Series Mod. 105.2

The unusual appearance of this loudspeaker (shown above without its full grille cover) results from its advanced technical specification. It is unequalled for its open, airy reproduction of music and voices.
Optimum stereo imaging and tonal balance are achieved by adjusting the position of the head assembly.
All drive units are computer-matched to close tolerances.
S-STOP electronic overload protection.

Specification:	SP1118
Frequency range:	38Hz to 22kHz± 2dB at 2m on reference axis (-10dB at 28Hz and 27kHz)
Maximum output:	107dB spl on programme peaks under typical listening conditions
Characteristic sensitivity level:	85dB spl at 1m on reference axis for pink noise input of 1W (anechoic conditions)
Programme rating:	200W
Nominal impedance:	8 ohms
Weight:	36kg
Dimensions:	965 (h) × 415 (w) × 455mm (d)

ULS 40 Universal Loudspeaker Stand

All compact loudspeakers give better sound quality when placed at the correct height on appropriately designed stands. Reproduction is more natural, stereo images are better defined and visual appearance is also improved. The ULS40 stand is suitable for use with most loudspeakers of up to 40 litres internal volume. It is superbly finished in black or dark brown. The large circular bass ensures stability on all types of flooring.

Drive Units

KEF have specialised in the design and manufacture of high quality drive units since 1961. These are all special types including composite diaphragms in metal and plastic for smooth frequency response and very low colouration. The following is a selection from many types available. Design leaflets are available from home constructors.

B139B SP1044

KEF's famous flat diaphragm woofer is still unsurpassed after more than twenty years in production.

Frequency range	20–1000 Hz
Programme rating	100 W
Nominal impedance	8 ohms
Technical data sheet	PL349 ENO 1

B200A SP1014

An 8 inch diameter Bextrene cone driver with long throw voice coil assembly and rubber surround suitable for use in totally enclosed boxes.

Frequency range	25–3500 Hz
Programme rating	50 W
Nominal impedance	8 ohms
Technical data sheet	PL347 ENO 1

B110A SP1003

The first Bextrene cone driver in production since 1966 and specified in countless OEM products. Incorporated in the famous LS3/5A, BBC monitoring loudspeaker.

Frequency range	55–3500 Hz
Programme rating	80 W
Nominal impedance	8 ohms
Technical data sheet	PL345 ENO 1

T27A SP1032

Mylar domed high-frequency radiator giving smooth, extended treble reproduction. Also specified for BBC LS3/5a and widely used elsewhere.

Frequency range	1000–40,000 Hz
Programme rating	100 W
Nominal impedance	8 ohms
Technical data sheet	PL342 ENO 1

Individual technical data sheets, application notes and KEFTOPICS are available free on request.

Detailed technical explanation of the development and design of KEF Reference Series loudspeakers is given in:

AES Paper*	The Application of Digital Techniques to the Measurement of Loudspeakers by J.M. Berman and L.R. Fincham
KEFTOPICS Vol. 3 No 3	Maintaining Quality Standards in Production
KEFTOPICS Vol. 3 No.4	High Efficiency with Small Enclosures?
KEFTOPICS Vol. 4 No.1	Overload Protection
KEFTOPICS Vol. 4 No 2	Crossover Filters

*Winner of Audio Engineering Society's Publication Award for the Outstanding Paper for the two year period 1978-1980.