

# KEF C-SERIES





**C10** This tiny bookshelf speaker is the latest in a long and illustrious line, that started with the famous original Cresta in the mid-sixties. This model astonished the hi-fi world with the quality which could be achieved with a miniature loudspeaker.

The C10 has a brand new B160 polypropylene bass/midrange driver, which reduces colouration, and improves sensitivity by a very useful 2dB with the assistance of the 'boundary' design.

KEF's latest computer aided design techniques have produced a combination of network, drive unit and enclosure which optimises the response with the wall taken into account, while still maintaining good overall balance with even lower colouration if granted more open surroundings.

The result is a diminutive little box that sounds much larger and louder than it looks. This attractive design makes no compromises in standards of finish and presentation, while the engineering constraints have been particularly carefully judged.

**C20** Larger than the C10, and therefore able to use a 200mm bass/midrange unit, the C20 shows many similarities to its smaller brother, but greater cabinet volume increases bass capability and sensitivity.

The new B200 bass/mid unit uses a polypropylene diaphragm to reduce colouration, while a new high sensitivity tweeter produces a dramatic 4dB increase in sensitivity, which, in combination with equalisation and computer optimisation gives a flat frequency response with the modest bass and lower-midrange reinforcement provided by a rear wall.

The C20 is the classic bookshelf speaker in size, performance and price, and shows just how good the performance can be from a modest economical system. Attractive modern design and a high standard of finish combine with finely balanced performance, taking advantage of the latest technologies in design and manufacture.

**C30** An immediate successor to the famous Coda III, probably the most successful loudspeaker of its generation, the C30 has a lot to live up to. The formula is similar, but the package has been significantly refined.

The 'flat' balance of the Coda III is retained, so this 'large bookshelf' speaker is best suited to open stand mounting. However, the new polypropylene 200mm bass/midrange unit has greater midrange sensitivity and improved bass damping, so shelf mounting is a perfectly feasible alternative, maintaining a proper sound balance. Overall sensitivity is well above average at 90dB/W, 3dB better than its predecessor. Yet bass extension is remarkably impressive, due to the generous cabinet and bass unit. The C30 is broadly similar in size to the new C60 and Model 103.2, and provides much of the performance of these more expensive stablemates in a simpler package.

**C40** The C40 is generous in both volume and drive units. Bass is plentiful and extended, and the design has been balanced to operate clear of boundaries on open stands.

The two new 200mm bass/midrange units use polypropylene cones. The lower driver is only used at the lowest frequencies, augmenting and extending bass output, substantially improving power handling capacity, and assisting bass damping.

The C40 is very reasonably priced for such a precisely engineered loudspeaker, considering the size of the cabinet. It goes exceedingly loud, handles plenty of

power besides, and has generous bass delivery, so it will be particularly appealing to the cost-conscious rock listener.

**C60** The C60's direct line of descent is from the highly regarded Caprice II, which in turn had much in common with the Reference Series Model 103.2.

Where the similar size C30 gives sound basic engineering with the emphasis on cost-effectiveness, C60, at a higher price, provides much of the extra subtlety and refinement of the Reference Series at a very reasonable cost.

C60 follows the classic format for a high quality bookshelf model, combining two drive units in a cabinet rigidly constructed of 22mm thick particle board finished in real wood veneer. The bass/midrange is handled by a high sensitivity 4ohm 200mm unit with polypropylene cone and cast chassis; the tweeter has already earned its spurs in the multi-award-winning Model 104/2.

Already an inherently sensitive design, the C60 is further improved by incorporating KEF's innovative new 'conjugate load' network, which allows much more of the available power of an amplifier to be actually used. Both appearance and performance will be enhanced by the optional stand, which has been designed specifically for this model.

The C60 is clearly an ideal compact model to upgrade an existing system. The very latest technical advances provide high sensitivity and easy amplifier loading, and hence the 'headroom' necessary to cope with the large peaks found in the best modern analogue and digital recordings. Though it has often been said that there is "no such thing as a free lunch," KEF's C60 comes remarkably close, offering quality and performance that belies both size and price.

**C80** Substantially the largest C-Series model, the slim elegant, floor-standing C80 is very much the version of the radical new Reference Series model 104/2 for the cost conscious audiophile. The 25mm tweeter is common to both, though the complex double bass unit coupled cavity system used in 104/2 is here simplified, with a conventional single unit. The famous B139 bass unit provides exceptional quality and unusual extension for the cabinet size. A new polypropylene-coned B160 provides high sensitivity and power handling with low colouration through the midband.

The C80 is the second C-Series model to benefit from KEF's unique 'conjugate load' crossover network design, originally developed for Model 104/2.

The net effect on your hi-fi system of replacing a conventional 8ohm speaker with one which presents a 4ohm constant resistance is that you can double the sound power output using your existing amplifier without any increase in distortion.

The C80 includes many features from the 104/2 programme at a little over half the price. Low cost amplifiers will reveal hidden strengths when coupled up to this loudspeaker's exceptionally high sensitivity and easy load characteristics. This floor-standing model has no need of separate stands. A two-position contour control is provided via a second connecting terminal, allowing the user a choice of system balance dependent upon room, location, and personal preference.

The C80 combines the low colouration and stereo virtues of open siting with fine bass extension, high output and power handling to provide outstanding value.

# The KEF C-Series

KEF's C-Series have rarely, if ever, been out of the bestseller lists for more than two decades. Where the Reference Series models bask in uncompromising high-tech glamour, the C-Series attacks the sterner task of providing maximum performance at minimum cost – i.e. value for money.

The influence of KEF's famous Reference Series is pervasive. The elaborate research tools which KEF have developed to advance the state of the art are equally valuable in getting the most from a package which has to meet a specific price. Furthermore, many of the C-Series drive units are very similar to those used in the computer-matched Reference Series. Consequently they benefit from the same fine engineering that is essential to achieving the unique guaranteed consistency of that range.

The introduction of polypropylene as a cone material in the C-Series has brought major benefits of reduced colouration and substantially improved efficiency and sensitivity to this budget and mid-priced range of loudspeakers.

KEF were involved in some of the earliest developments of this important cone material, but have hitherto been deliberately cautious of introducing it commercially until stringent tests were completed to ensure the long term reliability and performance under extreme stress. Special adhesive bonding techniques have now been developed, and the material has performed splendidly at the extremely high levels demanded by the professional KM1 monitor, so the way is clear for polypropylene's benefits to be applied to the mainstream models.

Today's listener often demands louder listening levels as the quality of programme sources improves, and modern digital and analogue recordings are more faithfully capturing loud musical peaks without compression. Both trends are best accommodated by improving the



efficiency and sensitivity of the loudspeaker, so that neither the speaker nor the accompanying amplifier are driven too close to their limits.

The latest C-Series models are substantially more sensitive than their predecessors. Moreover, KEF's radical new Conjugate Load Matching technique has been applied to the crossover networks of the top two C60 and C80 models. This provides a much easier load to the amplifier.

The loudspeaker with a conventional crossover network is invariably more 'awkward' to drive at some frequencies than at others. And the degree of 'awkwardness' limits how hard the amplifier may be driven before severe distortion causes the user to back off the volume or risk the consequences, or before the amplifier's protection starts to interfere. Today's loudspeakers are robust devices and overdriving the amplifier generally causes more damage than overdriving the speaker.

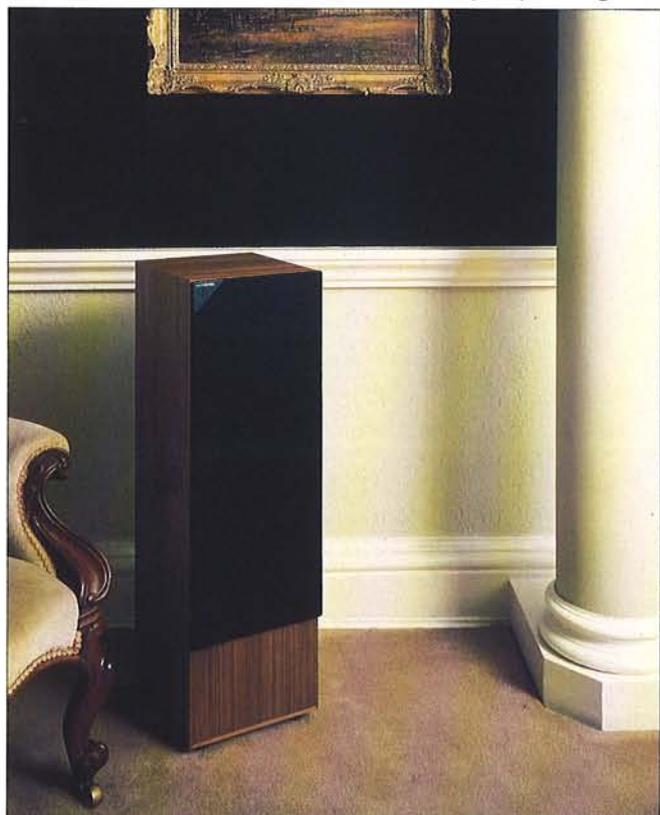
KEF's special conjugate circuitry, first used in the multiple-award-winning Model 104/2 balances the unevennesses of the drive unit and network load by means of 'mirror image' components that cancel out the impedance peaks and dips.

KEF have long championed the siting of loudspeakers well away from walls, to minimise the unavoidable colourations which are introduced by sound reflections from nearby surfaces and to improve stereo imaging in depth. But they also recognise that the practical realities of domestic life often dictate mounting close to a rear wall, particularly in the smaller room.

Accordingly, the two smallest models of the new C-Series, C10 and C20, are specially balanced to perform optimally under this so-called 'boundary' condition. The technique has been carefully applied to enhance sensitivity, and these 2 models are consequently ideal for placing on a shelf, or against a wall on a suitable stand.

The 'boundary effect' plays a significant part in determining the overall sound balance of a loudspeaker. Place the speaker near a wall, and the low frequencies are reflected forward, augmenting the total output over this range of frequencies. The key to designing a good boundary model is to create a response which in free air has a carefully placed small step, so that the perceived balance is flat when sited as recommended.

**Digital Recordings** KEF 'C' Series loudspeakers are particularly well suited to reproduce disc and other programme sources having a wide dynamic range.



MODEL	C10	C20	C30	C40	C60	C80
TYPE	SP3057	SP3053	SP3058	SP3054	SP3056	SP3055
1. Frequency Range	±3dB 90-500Hz rising 3dB to ±3dB 1kHz-20kHz -6dB at 70Hz	±3dB 72-400Hz rising 3dB to ±3dB 800Hz-20kHz -6dB at 58Hz	±3dB 70Hz-20kHz -6dB at 60Hz	±3dB 68Hz-20kHz -6dB at 58Hz	±3dB 66Hz-20kHz -6dB at 55Hz	±3dB 50Hz-20kHz -6dB at 38Hz
2. Max. Output	106dB	110dB	110dB	111dB	110dB	112dB
3. Characteristic Sensitivity Level	88dB*	90dB*	90dB	91dB	89dB	87/89dB**
4. Amplifier Requirements	10-60W	10-100W	10-100W	10-100W	10-100W into 8Ω 20-200W into 4Ω	10-150W into 8Ω 20-300W into 4Ω
Nominal Impedance	8Ω	8Ω	8Ω	8Ω	4Ω resistive	4Ω resistive
Enclosure Type	Closed box	Closed box	Closed box	Closed box	Closed box	Closed box
Internal Volume	6.1L	11.4L	17.5L	30L	24L	47L
Net Wt.	3.7kg 8.2lb	6.5kg 12lb	7.3kg 16.1lb	9.6kg 21.1lb	12.0kg 26.4lb	19.8kg 43.5lb
Dimensions	300h x 205w x 172d mm 11.8 x 8.1 x 6.8 in	340h x 247w x 212d mm 13.4 x 9.7 x 8.4 in	503h x 247w x 212d mm 19.8 x 9.7 x 8.4 in	650h x 247w x 262d mm 25.6 x 9.7 x 10.3 in	470h x 250w x 312d mm 18.5 x 9.8 x 12.3 in	850h x 265w x 315d mm 33.5 x 10.4 x 12.4 in
Conditions of Use	Shelf or wall mounting	Shelf or wall mounting	Free standing on stand 25-35cm high. Matching KEF stands are available	Free standing on stand 13-25cm high. Matching KEF stands are available	Free standing on stand 30-40cm high. Matching KEF stands are available	Floor standing
Features	Shelved LF response designed to give optimum sound balance when placed close to wall or on shelf. 3rd order LF loading for increased LF extension and power handling		High sensitivity - free standing	High sensitivity - high output - free standing. 3rd order LF loading for increased LF extension and power handling	Matched real wood veneers. Die cast chassis. Conjugate load matching	Matched real wood veneers. Die cast chassis. Conjugate load matching. Two-position contour control
Finish	Simulated walnut, rosewood, black ash				Walnut, rosewood, black ash matched real wood veneers	

#### Specification notes

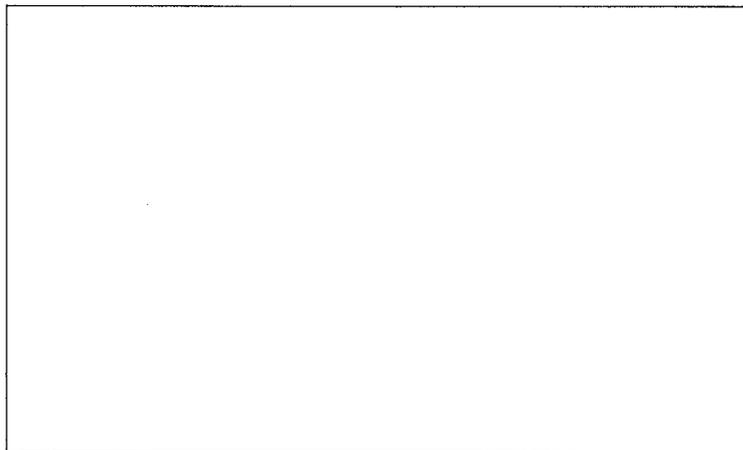
1. Measured at 2m on reference axis in free field conditions.
2. Maximum spl on programme peaks under typical listening conditions.
3. Measured at 1m on reference axis for pink noise input of 2.83vrms (anechoic conditions).
4. The amplifier requirements figures are intended only as a guide. As a general rule, buy the biggest amplifier you can afford within the specified range and

use it with care. It is easier to damage a loudspeaker by using a small amplifier driven into distortion by too much volume with bass and treble boost, than by using a larger amplifier which has power in reserve. If in doubt, you should always ask your dealer for advice.

\*The quoted sensitivity figures include 1.5dB to reflect the additional output under recommended conditions of use.

\*\*Dependent on contour control.

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



KEF ELECTRONICS LTD., Tovil, Maidstone, Kent ME15 6QP. Telephone: 0622 672261. Telex: 96140.  
Distributed in the U.S.A. by: KEF Electronics of America Inc, 14120-K Sullyfield Circle, Chantilly, VA 22021.  
Telephone: (703) 631 8810. Telex: 510 100 2304.