

# KEF C SERIES MC80

## INSTALLATION INSTRUCTIONS

Recording technology has greatly advanced in recent years. Digital recordings possess a wider dynamic range than ever before. Reduced background noise reveals more fine musical detail. To realise the full potential of these recordings a new breed of speaker is demanded.

What are the characteristics which this new breed of speaker should have?

A WIDE DYNAMIC RANGE requires a loudspeaker of high efficiency, coupled with adequate power handling and low distortion.

LOW COLOURATION is achieved by freedom from spectral distortion both on and off axis, and by freedom from structural resonances in the enclosure and drive units, allowing fine musical detail to be reproduced with clarity and accuracy.

STABLE STEREO IMAGING requires exceptionally close matching between left and right-hand loudspeakers, with uniform on and off axis response, under all conditions.

PLEASING APPEARANCE. Speakers are necessarily part of the furniture in the home, and must truly be 'lived with'. Industrial design, compatible with the engineering demands, should therefore ensure that the loudspeaker looks as elegant and unobtrusive as possible. It should also give of its best in all rooms irrespective of their shape and size, allow flexibility of positioning, and operate with as wide a range of associated electronics as possible, whilst extracting the best from each.

It is to fulfill these requirements that your new KEF C80 has been designed.

### Unpacking, Handling and Aftercare

Spread the carton flaps completely. Lay the carton on its side and turn it upside down.

Lift the carton upwards off the loudspeaker and put it and the packing pieces to one side. We suggest you retain all the packaging in case you need to transport the speakers at a later date.

Place the loudspeakers in their anticipated listening position and connect them to your equipment observing polarity (see section on Speaker Connections).

Play a selection of recordings with which you are familiar, listening for sound balance, inner detail and stereo imaging. Allow yourself time to get used to the sound of your new speakers in your listening room. Careful attention to the suggestions contained in this manual should ensure they operate properly within your chosen system.

Your KEF C80 loudspeakers have been designed to a very high standard of performance and are supplied in matched pairs of real wood veneer cabinets.

The cabinets should be treated with the same care with which you would treat fine furniture, and the use of a good quality wax polish is recommended.

It is normal for walnut cabinets to darken and rosewood to lighten with the passing of time, but locations in direct sunlight should, if possible, be avoided.

If you need to brush the grille cloth please remove the grille before doing so.

### Speaker Positioning

The KEF C80 is designed to stand on the floor. Self adhesive rubber feet are supplied. These should be fixed close to the corners of the cabinet underside to give stability.

The tonal quality and clarity of the reproduction, and above all, the sharpness of the stereo image, are determined by the sound that reaches the listener directly, without reflection from walls, floor or ceiling.

Reflection from nearby walls, windows, mirrors, even the TV set can spoil stereo definition by confusing the primary image. Large items of soft furniture can cause absorption of midrange and high frequencies.

As a general rule loudspeakers should be placed about 1m from the nearest side wall and 50cm from the rear wall, and angling them inwards slightly can be beneficial. The distance between the speakers, and their distance from the listener is also important. Spacing the speakers between 2 (6'-6") and 4 (13') metres apart will allow images to develop fully, and you should sit at a distance at least equal to, and preferably greater than, the distance between them.

Considerable changes can be made to the sound of your hi-fi system by altering the position of the loudspeakers relative to the walls, sometimes by only a few inches. Changing the angle at which they are placed can significantly affect the focus of the stereo image.

The listening room is the most variable and unpredictable element in the hi-fi chain and it cannot be emphasised too strongly that the only way to achieve optimum performance is through many hours of critical, aware listening both on speech and music, whilst adjusting the speakers' position.

### Connecting the C80

Any speaker designed to be free-standing will have its bass output augmented when placed close to a wall or corner. The bass control provided on a typical amplifier is not suitable to compensate properly for this effect.

The KEF C80 allows the user to optimise the system balance to suit his listening environment by including a two position contour control.

Three terminals are located at the rear of the C80 instead of the usual two. The black or negative (-) terminal on the amplifier should ALWAYS be connected to the central, black speaker terminal. You should adopt the following procedure.

Place the speaker in its likely position, as dictated by practical considerations, such as existing furniture, doors, windows, etc. Connect the amplifier to the speakers using the RIGHT hand red terminals and centre black (connection 'B').

Switch on and play a variety of music, listening carefully to the overall balance of the system. If you find that, in its chosen location, the speaker sounds bass light, then change the RED connection from right ('B+') to left ('A+'). The level of mid and high frequencies will now be lowered relative to the bass, giving a 'warmer' sound balance.

There are no rigid rules for the use of this contour control facility. Any speakers performance is always substantially dictated by location, ancillary equipment and listener preference.

The terminals fitted to the KEF C80 will accept either bare wire or 4mm 'banana' plugs. If you use bare wire you will need to strip 20/25mm (3/4"-1") of insulation — 12.5mm (1/2") is not enough! — twist it tightly together with *clean* fingers, and having previously unscrewed the terminal,

wrap the wire clockwise around the terminal and screw it up TIGHT. Make sure there are no stray strands of wire which can cause a short circuit between the two terminals. If 4mm 'banana' plugs are used, you should choose a good quality sprung or expanding type, making sure the cable is properly connected and that the plugs fit tightly into the sockets. Normal polarity of connection (amp positive/red to speaker positive/red and amp black to speaker black) should be observed.

**N.B.** All connections should be made with the equipment switched **OFF**. Only switch ON once all connections have been made and are secure.

Correct polarity is vital to the proper operation of the system. Once you have made the connections described above you can check the polarity in the following manner.

Place the two loudspeakers close together facing each other about 5—7.5cm (2"—3") apart. Play a recording which has plenty of deep bass such as an organ solo, operating both speakers simultaneously with the amplifier switched to 'mono'. Repeat the test after changing over the connections on **one** loudspeaker. Correct polarity is indicated by firm, full bass. When polarity is incorrect, the bass will be noticeably much weaker.

Keep the speakers facing each other and, after establishing correct polarity as above, again reverse the connections on **one** loudspeaker.

Using the same piece of music, and keeping the signal in mono, rotate the balance control on your amplifier on either side of 'centre'. You will hear a point at which the signal almost disappears. At this point the output from both loudspeakers is the same. In an ideal symmetrical listening set-up this should be the setting adopted, (don't forget to correct the polarity change you have just made!). You may need to use the balance control to compensate for an "off centre" listening position, or asymmetrical speaker positions within the room. KEF C80's imaging capabilities are outstanding and it is worthwhile spending some time in achieving the correct balance between the two speakers from your normal listening position.

Always try to keep the cable run from amplifier to speakers as short as possible to minimise power and high frequency losses, although in most domestic hi-fi systems this should never become a serious problem.

The choice of cable to use with KEF C80 is less critical than with most other loudspeakers owing to the resistive nature of the load it presents to the amplifier. The total resistance however, should not exceed 0.2 ohms.

The table (A) shows the maximum length that can be used in various gauges without audible effect on speaker performance. As a general guide good audiophile speaker cable has a cross section of approximately 4mm<sup>2</sup>. Colour coded cable is recommended to assist checking polarity.

Always use cables of equal length to both speakers even if the actual length of the cable run in the room is different. If one run is shorter than the other the excess cable should be folded neatly, concertina fashion and secured with a cable tie or elastic band.

The importance of good, clean, tight connections to your loudspeakers cannot be over emphasised.

It is good practice occasionally to remake all connections. In the case of wrapped connections, cut off the old wire and strip the insulation back to expose fresh.

**CAUTION:** Certain exotic types of cable have high capacitance which can cause instability with some amplifiers. If in doubt, select a cable from the foregoing tables, or consult your dealers.

### Amplifier requirements and power handling.

The KEF C80 will give its optimum performance on programme material having a wide dynamic range when driven by an amplifier capable of delivering up to 300 watts into a 4 ohm resistive load. In practice this means an amplifier whose output rating is 150 watts into an 8 ohm load. KEF C80 can however be driven to perfectly adequate domestic listening levels by an amplifier rated at as little as 25 watts. The C80 is a high-efficiency system capable of achieving very high volume levels without distress, and of sustaining short term amplifier output peaks in excess of 300 watts.

If KEF C80 is used with your existing amplifier you will almost certainly find that you need a lower volume setting than you have been used to, and the dynamic range you hear (dynamic range is the difference between the loud and soft parts of the music) will be greater. This, coupled with the imaging capability and overall balance of the KEF C80, will enable you to hear more musical detail, and perceive more about how, and where, the recording was made.

### Record Suggestions

The importance of listening tests in setting up your hi-fi system has been emphasised in these instructions. Use records having good tonal balance with good imaging qualities, covering as wide a range of music and voice as possible. To assist your setting-up, and add to your musical enjoyment, KEF recommend the following records, in either analogue or CD (where available) format.

## SERVICE INFORMATION

Loudspeakers are inherently reliable and rarely give trouble. It is important to remember that faults arising in any part of the reproducing system will be heard via the loudspeakers and therefore when faults occur, careful and analytical diagnosis will be required to locate the actual source of trouble. Loudspeakers cannot generate hiss or hum. Spurious noises of this type generally originate in the electronic sections of the equipment or even in the programme source itself. Faults in a loudspeaker will be audible on all programme sources. A fault which is evident only when playing discs but not, for example, when using the radio tuner, is not likely to originate with the loudspeakers.

Service problems should be discussed in the first place with the dealer from whom the goods were originally purchased. Generally warranty claims are best handled by your dealer. However, in case of difficulty, contact:—

Customer Service Department, KEF Electronics Limited, Tovil, Maidstone, Kent, ME15 6QP. Telephone: 0622 672261. Telex 96140.

This precision engineered KEF product is guaranteed against faulty material and workmanship for a period of five years from the date of original purchase subject to the following restrictions.

- 1 This warranty is only valid in the country of purchase.
- 2 That the equipment has not been disassembled, modified or tampered with by any person other than an expressly authorised representative of KEF Electronics Limited.
- 3 That the equipment has not been abused or operated in conjunction with unsuitable or faulty apparatus.
- 4 That the equipment has not suffered mechanical damage or derangement in transit.

Should service be required, notify the dealer from whom you purchased the equipment and have him arrange onward shipment to KEF ELECTRONICS LIMITED or an authorised agent if he confirms the need for factory attention. Do not despatch goods without prior agreement of KEF or their authorised agents.

If asked to return products for inspection and/or repair, pack carefully, preferably in the original cartons and return prepaid. Insurance is recommended as goods are returned at the owner's risk. KEF or their authorised agents cannot be held liable for loss or damage in transit. Packing and insurance and freight on the return journey will be paid by KEF if warranty work proves to be necessary.

Failure to register in no way limits or invalidates the warranty, but in the event of service being required, delay may result since our Service Department cannot begin warranty work until the original sale has been verified.

## For the USA

This KEF loudspeaker is warranted to the original purchaser against original factory defects in material or workmanship for a PERIOD OF FIVE YEARS FROM THE DATE OF ORIGINAL PURCHASE.

### What we will do

Should your KEF loudspeaker fail to function properly because of a manufacturing defect, KEF will repair or replace it free of charge. If the product is still defective after a reasonable number of attempts by the warrantor to remedy the defect, you may elect a refund of the purchase price or replacement without charge. Before a refund or replacement can be made, the product must be free of all liens and other encumbrances.

### How to obtain service

Should service be required, contact the dealer from whom you purchased the equipment and have him arrange onward shipment to KEF Electronics Limited or an authorised agent. Ship the product prepaid, only after receiving written authorisation and instructions from the dealer.

Include a written description of the claimed defect, and your original sales slip or other proof of ownership and date of purchase.

We strongly recommend that speakers be packed in their original cartons and packing material and that all shipments be insured. (KEF cannot be responsible for loss or damage in shipment.) Packing, insurance and return freight will be paid for by KEF if work covered under the warranty is necessary.

### What is not covered

This warranty does not cover a loudspeaker system which has been :

- 1 damaged while in your possession;
- 2 overloaded, abused, misused or operated with faulty or unsuitable equipment.

IN NO EVENT SHALL THE WARRANTOR BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, whether damages result from breach of express or implied warranties, tort, negligence or otherwise.

Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you have any questions about this warranty and your dealer has not been able to assist you, please contact:

KEF Electronics of America Inc, 14120-K Sullyfield Circle, Chantilly, VA22021. Telephone: (703) 631 8810. Telex: 510 100 2304

### OWNER REGISTRATION INFORMATION

Please complete and return the product safety registration card within 14 days of purchase. Failure to register does not invalidate your warranty; but in the remote event any safety hazard develops with this product, your registration card will facilitate our notifying you promptly.

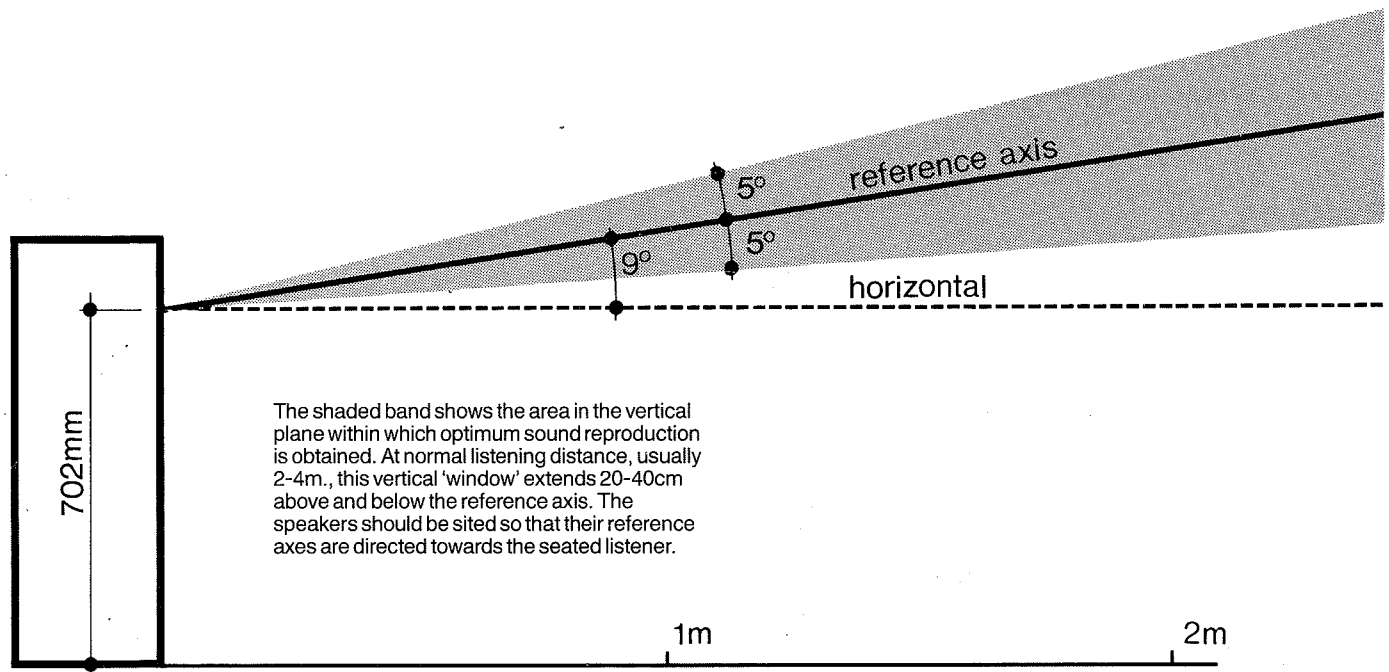
|                                                                                                                                                                                                                    |                           |                  | A      | Wire type<br>area mm <sup>2</sup> | Resistance per metre<br>mΩ | Length for 0.2 Ω<br>m |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------|--------|-----------------------------------|----------------------------|-----------------------|
| Rachmaninov/Saint Saens                                                                                                                                                                                            | Rhapsody/Piano Concerto 2 | Philips 410 052  |        |                                   |                            |                       |
| Brahms                                                                                                                                                                                                             | Piano Concerto 2          | Decca 410 199    |        |                                   |                            |                       |
| Debussy                                                                                                                                                                                                            | Preludes                  | Denon 38C37      |        | 0.75                              | 46.0                       | 4.3                   |
| de Falla                                                                                                                                                                                                           | Three Cornered Hat        | Decca 410 008    |        | 1.0                               | 34.5                       | 5.8                   |
| Rachmaninov                                                                                                                                                                                                        | Symphonic Dances          | Decca 410 124    |        | 1.25                              | 27.6                       | 7.2                   |
| Canteloube                                                                                                                                                                                                         | Auvergne Songs            | Decca 410 004    |        | 1.5                               | 23.0                       | 8.7                   |
| Laurie Anderson                                                                                                                                                                                                    | Mister Heartbreak         | Warner 925 077   |        | 2.5                               | 13.8                       | 14.5                  |
| Peter Gabriel                                                                                                                                                                                                      | Four                      | Charisma 800 091 |        | 4.0                               | 8.6                        | 23.3                  |
| Elton John                                                                                                                                                                                                         | Superior Sound of         | DJM 810 062      |        | 6.0                               | 5.7                        | 35.1                  |
| Rickie Lee Jones                                                                                                                                                                                                   | Rickie Lee Jones          | Warner 256 628   |        | 10.0                              | 3.4                        | 58.8                  |
| Joe Jackson                                                                                                                                                                                                        | Body and Soul             | CBS 6500         |        |                                   |                            |                       |
| Thomas Dolby                                                                                                                                                                                                       | The Flat Earth            | EMI 85930        |        |                                   |                            |                       |
| A general check on system performance can also be carried out using one of the many test discs available. One such, which is particularly simple to use is 'The Enjoyment of Stereo' by John Borwick, EMI SEOM 26. |                           |                  |        |                                   |                            |                       |
|                                                                                                                                                                                                                    |                           |                  | U.S.A. | AWG                               |                            |                       |
|                                                                                                                                                                                                                    |                           |                  |        | 18                                | 42.2                       | 4.7                   |
|                                                                                                                                                                                                                    |                           |                  |        | 16                                | 26.4                       | 7.6                   |
|                                                                                                                                                                                                                    |                           |                  |        | 14                                | 16.5                       | 12.1                  |
|                                                                                                                                                                                                                    |                           |                  |        | 12                                | 10.4                       | 19.2                  |
|                                                                                                                                                                                                                    |                           |                  |        | 10                                | 6.5                        | 30.8                  |
|                                                                                                                                                                                                                    |                           |                  |        | 8                                 | 4.1                        | 48.8                  |

## SPECIFICATION

|                                               |                                                                                                    |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------|
| Type                                          | SP3055                                                                                             |
| <sup>1</sup> Frequency range                  | ±3dB 50Hz-20kHz<br>-6dB at 38Hz                                                                    |
| <sup>2</sup> Max. output                      | 112dB spl                                                                                          |
| <sup>3</sup> Characteristic sensitivity level | 87/89dB* spl                                                                                       |
| <sup>4</sup> Amplifier requirements           | 10-150W into 8Ω<br>20-300W into 4Ω                                                                 |
| Nominal impedance                             | 4Ω resistive                                                                                       |
| Enclosure type                                | Closed box                                                                                         |
| Internal volume                               | 47l                                                                                                |
| Net wt.                                       | 19.8kg<br>43.5lb                                                                                   |
| Dimensions h x w x d                          | 850 x 265<br>x 315 mm<br>33.5 x 10.4<br>x 12.4 in                                                  |
| Conditions of use                             | Floor standing                                                                                     |
| Features                                      | Matched real wood veneers. Die cast chassis. Conjugate load matching. Two-position contour control |
| Finish                                        | 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 2.83v rms (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 large amplifier which has power in reserve. If in doubt, you should always ask your dealer for advice.
- \* Dependent on contour window.



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

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