

# KEF Speaker Models Celeste Mk. II and Concord

## INSTALLATION INSTRUCTIONS

A great deal of skill, research and technical knowledge guarantees that your KEF speaker system will give the finest possible reproduction of speech and music in domestic conditions, working in conjunction with the majority of modern amplifiers and receivers. The following simple instructions will help you to obtain these results but if you have any problems or doubts you should consult your dealer or write to KEF Electronics Limited.

### IMPEDANCE MATCHING

The Celeste and Concord are intended to operate with amplifiers which require loads in the range 8 to 16 ohms. If the loudspeaker is connected to lower impedance outputs no harm will be done, but the maximum volume obtainable without distortion will be reduced. In such cases better matching is possible using a small auto transformer, available from KEF.

### CONNECTING LEADS

Ordinary twin PVC covered lighting flex (14/0076") is suitable for most installations and runs of up to 12 yards will not entail significant loss of power. A colour coded type should be chosen to assist phasing. Longer leads should be made with 3/.029" cable to minimise resistance losses.

### PHASING

For mono reproduction using one speaker it does not matter which way round the loudspeaker terminals are connected, but with a stereo installation it is essential to observe correct polarity. The positive terminals of all KEF speakers are marked with a red plus sign. This should be carefully carried through the wiring to the output terminals of the amplifier.

A quick check on phasing can be made by placing the speakers close together and playing a mono signal through both channels. Note the quality of the low frequency reproduction and then repeat after reversing the leads to one of the loudspeakers. The bass will be much fuller and rounder when the phasing is correct. An organ recording is naturally well suited to this test.

### LOCATION OF LOUDSPEAKERS

Loudspeakers are greatly influenced by their position in the room. To secure best results one must occasionally be prepared to rearrange other furniture. The loudspeakers should be placed between 6 and 12 feet apart, depending upon the size of the room and listening distance, and preferably at a height of 2 - 3 feet above the floor so as to bring the high frequency units on a level with the listeners' ears, (see fig 1). Where this cannot be done, the loudspeakers should be tilted, so that the HF units are inclined towards the listeners, (see fig. 2). An adjustable base, suitable for use with floor standing models is available from KEF.

The sharpest stereo image will be obtained with the speakers angled slightly inwards so that the axes of the high frequency units intersect in the listening area, (see fig. 3). It is sometimes preferable to angle the speakers so that their axes intersect at a point well in front of the listeners, (see fig. 4). In some cases this arrangement will provide an acceptable stereo image over a wider area.

The best bass performance is usually obtained with the speakers located in the corners of a room facing down the length of it, otherwise the speakers should be placed with their backs close to a wall. Performance varies greatly with location and sometimes moving a speaker, even a few feet, will make an astonishing difference to the tonal balance. It is therefore advisable to fit temporary long leads and carry out listening tests in various positions before settling the final arrangement.

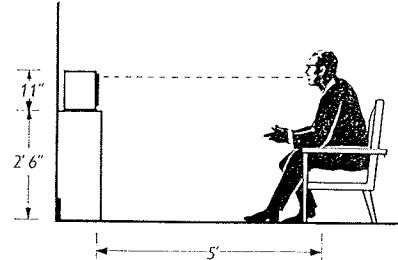


Fig. 1 Speakers raised to level of seated listeners.

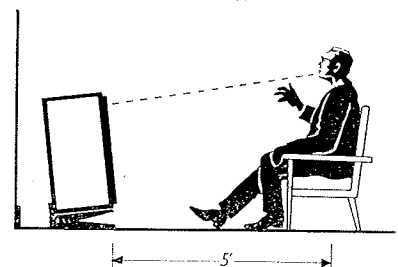


Fig. 2 Speaker tilted towards listener's ears.

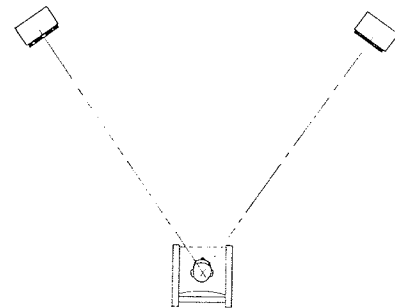


Fig. 3 Speakers angled inwards towards listeners.

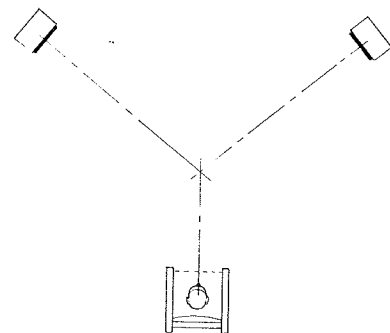


Fig. 4 Speaker axes intersect in front of listeners.

## INSTALLATION NOTES

The Celeste and Concord may be used either vertically or horizontally and the KEF badge may be rotated to any desired angle. In the case of the Concord however, it is advisable to pull off the front grille and loosen the badge fixing screw, pushing the badge clear of the woodwork before turning, to avoid damage to the front face. Afterwards, replace the screw but do not overtighten. These precautions are unnecessary with Celeste.

## LISTENING TESTS

It is impossible to form an opinion of loudspeaker performance by listening to one or two records. A wide variety of items is necessary and the records used must be good examples of their type. A comprehensive test should include orchestral music, organ, piano, violin, choral, speech and dance music items. The following records have been chosen for their clean recording and general high quality.

	Programme	Make	Number	Title
1.	Speech	Argo	RG484	Elizabethan and Jacobean Lyric
2.	String Orchestra	Columbia	SAX 5252	Mozart; Eine Kleine Nacht Musik
3.a	Full Orchestra	R.C.A.	SB 2105	Borodin; Symphony No. 2.
b	" "	Decca	SXL 6168	Ansermet Conducts Chabrier
c	" "	D.G.G.	138974 SLPM	Sibelius; Symphony No. 4.
4.	String Quartet	Decca	SXL 6196	Shostakovitch; Quartet No. 10.
5.	Piano	IRAMAC	6504	Beethoven; Waldstein Sonata
6.	Organ	C.B.S.	SBRG 72168	Bach Organ Favourites
7.	Soprano	Decca	SXL 2256	The Art of the Prima Donna
8.	Dance Band	Polydor	237646	Blue Midnight Bert Kaempfert

## VHF BROADCASTS

People living in the south-east who receive their programmes by VHF from Wrotham are advised to include selections from some of the excellent BBC broadcasts now being transmitted in mono and stereo. Most of the concerts and operas which are transmitted live from the London area are of first rate quality and certain offerings, such as Grand Hotel, are of consistently good standard. Audience applause is also a revealing test for colouration and auditory perspective.

Colouration, due to poor room acoustics, will be readily revealed by the string orchestra No.2 and the male voices in No. 1. The orchestral item No. 3 is a good test for general balance, while the organ piece will expose hangover at very low frequencies.

## ROOM ACOUSTICS

The acoustics of the listening room profoundly affect the quality of reproduction and a loudspeaker cannot compensate for poor conditions. Reproduction can be spoiled by the room in several ways - by upsetting the tonal balance; by introducing hangover at low frequencies, resulting in boomy or muddy quality; and by reflections blurring the stereo image.

Hard plaster walls, bare floors and large uncurtained windows play havoc with tonal balance and give the treble a harsh metallic quality. Be prepared to invest in a carpet and other soft furnishings if you find that all violins sound as though they are made of glass. On the other hand, over luxuriant furnishings produce a woolly blanketed sound. Speakers should not be placed behind settees and heavily upholstered chairs.

Hollow wooden floors and flimsy ceilings can give rise to boomy bass but they can also cause loss of bass through absorption of low frequency energy. The only cure is structural alteration, but try standing the loudspeakers on thick pads of foam rubber or rubberised hair to reduce floor vibration or otherwise move the speakers to a firmer part of the floor.

A poor stereo image is nearly always caused by reflections from hard surfaces near the speakers. Moving the speakers away from the walls or using drapes to cut down reflections will usually improve matters. A heavily curtained bay window is excellent from this point of view.

Where space permits, the arrangement shown in figure 5 gives good results because it avoids confusing reflections between the speakers.

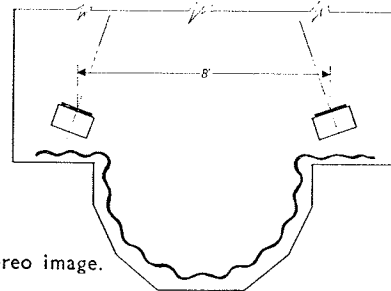


Fig. 5 Curtained bay gives good stereo image.



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