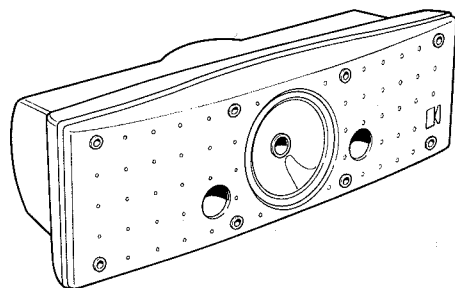
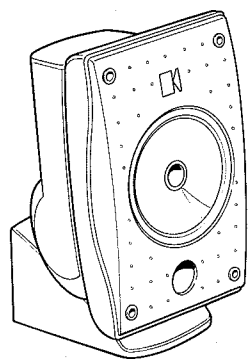


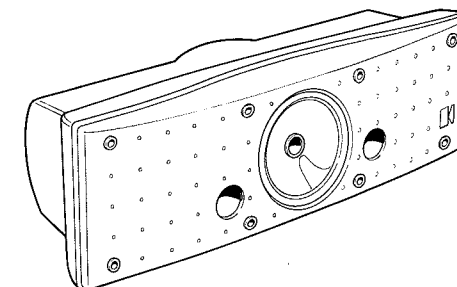
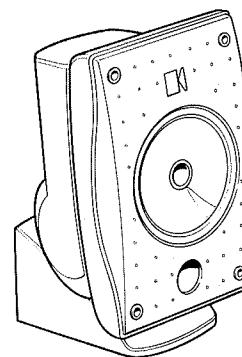
TECHNICAL DATA AND SPECIFICATIONS



KEF Home Theatre

Model 60S Satellite/Surround and Model 80C Centre-channel Loudspeaker

INSTALLATION MANUAL



Product:	Model 60S	Model 80C
Description:	2-way, Uni-Q Satellite/Surround loudspeaker	2-way, Uni-Q Centre-channel loudspeaker
HF Drive Unit:	10 mm (3/8") polymer, fluid cooled	10 mm (3/8") polymer, fluid cooled
LF Drive Unit:	130 mm (approx. 5 1/4") coated aerogel cone	130 mm (approx. 5 1/4") coated aerogel cone
Frequency Range	± 3 dB: 100 Hz – 20 kHz – 6 dB: 75 Hz	80 Hz – 20 kHz 60 Hz
Characteristic Sensitivity Level ¹ :	89 dB	89 dB
Maximum Output ² :	106 dB	106 dB
Amplifier Requirements ³ :	10–75 W	10–75 W
Nominal Impedance:	4 ohms	4 ohms
Enclosure Type:	Port Reflex	Twin Port Reflex
Internal Volume:	LF 2.5 litres (0.09 cu ft)	5 litres (0.18 cu ft)
Net Weight:	1.8 kg (4 lb)	2.1 kg (4.6 lb)
Overall Dimensions:	mm 248 x 150 x 170 in. 9.8 x 5.9 x 6.7	150 x 450 x 165 5.9 x 17.7 x 6.5

Features and specifications subject to change without notice.

Uni-Q® is a trade mark of KEF and is protected under UK Patent No. 2 236929. World-wide patents pending. E & O.E.

Note:

¹ Measured at 1 m on reference axis for pink noise input of 2.83v rms (anechoic conditions).

² Maximum spl on programme peaks under typical listening conditions.

³ Amplifier 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 the 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, ask your dealer.

IMPORTANT
PLEASE READ THIS FIRST



Thank you for purchasing KEF loudspeakers. These loudspeakers have been designed to faithfully reproduce high quality sound over many years of use and should provide realistic reproduction of music and speech. Please take a little time to read these instructions prior to use.

INTRODUCTION

Since its formation in 1961, KEF has pioneered many innovations in loudspeaker technology and design. Your new loudspeakers contain the latest of these advances – the KEF Uni-Q® Driver.

This radical new KEF design not only places the woofer and tweeter on the same axis but their acoustic centres are also in the same plane. In addition, the profile of the woofer cone modifies the directivity factor or 'Q' of the tweeter so that both drive units have the same directivity in the critical cross-over region. This unification of woofer and tweeter 'Q' lies behind the new units name: The Uni-Q® Driver.

Common Features

Model 60S and 80C share a common 130 mm (approx. 5¼") Uni-Q drive unit, which incorporates a 10 mm (¾") fluid-cooled polymer tweeter for high frequencies and a dedicated 130 mm (approx. 5¼") coated aerogel driver covers the bass range. A multi-element high quality cross-over network is used to divide the audio signals to each of the drive units within the Uni-Q chassis.

Both speakers represent an 'easy load' for most good quality amplifiers to drive and with high power handling and wide dynamic range, these loudspeakers can be used with ancillary equipment of the highest order, yet are equally suitable for use with more budget-conscious products.

Magnetic Shielding

A design feature of the Model 60S and 80C is the magnetically shielded drive units. The magnet of the Uni-Q drive unit is mounted within a steel canister which contains a flux cancelling magnet. This arrangement reduces the external magnetic field around the loudspeaker, significantly reducing the picture distortion that can be caused by conventional, unshielded loudspeakers. Some televisions may be more sensitive to the location of external magnetic fields, despite this shielding. If in doubt, please consult your dealer.

MODEL 60S

The Model 60S is designed for use as a surround (or effects) loudspeaker and is best suited for mounting against a side or rear wall. When positioned correctly and used in the context of a AV system incorporating, for instance, a Dolby Pro-Logic® decoder, the 60S will produce the spatial and ambience effects that have been encoded in the broadcast or pre-recorded software.

You can also use an additional pair of Model 60S's as front effects speakers, in addition to the main front channel speakers, if your amplifier/decoder is suitably equipped with the necessary extra output sockets. (You may need to consult your dealer to determine if your equipment has this facility).

The compact size and controlled directivity of the 60S also allows their use as the main front left and front right channel speakers in a subwoofer/satellite (sub/sat) combination, particularly when used with a KEF powered subwoofer (available separately). In this case, the 60S may be treated as conventional loudspeakers and should be positioned in front of the listener and about 2–3 m (6'–10') apart. No 'toe-in' is necessary due to the controlled directivity characteristic of the Uni-Q drive unit.

MODEL 80C

The Model 80C is a compact centre-channel speaker designed to be used on top of a television. The aesthetic design of the Model 80C loudspeaker is particularly appealing and has been chosen to match the vast majority of currently available TV and video equipment. The speaker is magnetically shielded to allow placement directly on or adjacent to TV sets.

Model 80C is particularly suitable for stacking on top of a VCR or laserdisc player although it is equally at home on top of the TV set. Uni-Q Technology means that, either way, the Model 80C will deliver crystal clear sound to the listener.

(Dolby is a registered trademark of Dolby Laboratories Licensing Corporation).

UNPACKING, HANDLING AND AFTERCARE.

Model 60S loudspeakers are packed two speakers per carton, while the Model 80C is packed singly. Unpack the speakers carefully and inspect for any visible sign of damage. Your speakers left KEF in perfect condition. If any damage is apparent, notify your dealer immediately. Retain the packaging in case the need arises for you to transport the speakers at a later date.

The surfaces of these cabinets may be cleaned with a slightly damp, soft lint-free cloth. We do not recommend that the cabinets are exposed to direct sunlight or high temperatures. Nor should they be allowed to become wet.

Mounting Arrangements – Model 60S

To get the best surround effect from these loudspeakers requires that they be positioned directly against either the side or rear wall (when used as rear channel effects speakers).

If used as side channel speakers, the Model 60S's should be sited approximately ⅓rds of the way down the room, away from the front speakers. KEF recommend a mounting height of approximately ⅓rds the height of the room for optimal effect.

Part of the 60S acts as a swivel bracket and allows the speaker to be angled to suit domestic conditions. As such the speaker may be positioned on a desktop, a bookshelf or mounted on a wall. The ball joint allows a finite amount of adjustment; however, the bracket is not detachable.

Keyhole fixings are provided for easy mounting against the wall. You should ensure that secure wall fixings are used. If you are attempting to mount the 60S to a cavity/dry-lined wall, please ensure that the correct load-bearing cavity fixings are used. Once mounted on the wall, do not try and force the swivel joint. Instead, remove each 60S from the wall, make the necessary adjustments and then refit it.

A template printed overleaf will help you to correctly site the required holes should you wish to use the keyhole fixing method. Round headed screws are recommended. The fixing screws should be long enough to secure in the wall yet still leave sufficient length for the speaker to hang upon.

Positioning – Model 80C

For the best sound reproduction and to accurately locate dialogue sounds as coming from on-screen requires Model 80C to be placed as close to the centre of the screen as possible. In practical terms this means positioning the loudspeaker either directly on top of or below the television so that the speaker grille is in roughly the same plane as the screen. Three feet are used on the 80C of which the rear foot is adjustable to allow the speaker to be used on televisions with curved top surfaces (see Fig. 1).

The TV set or monitor should first be switched off at the mains socket before placing the speaker in your preferred setting. For locations on top of the TV, the centre speaker should be gently lowered down onto the television. Do not 'slide' the speaker onto the TV either from the front or the side. Alternatively, locate the speaker on a shelf beneath the TV. Only restore power to the television once the loudspeaker is in your chosen position. Each speaker is fitted with anti-slip feet to prevent enclosure movement when playing loud.

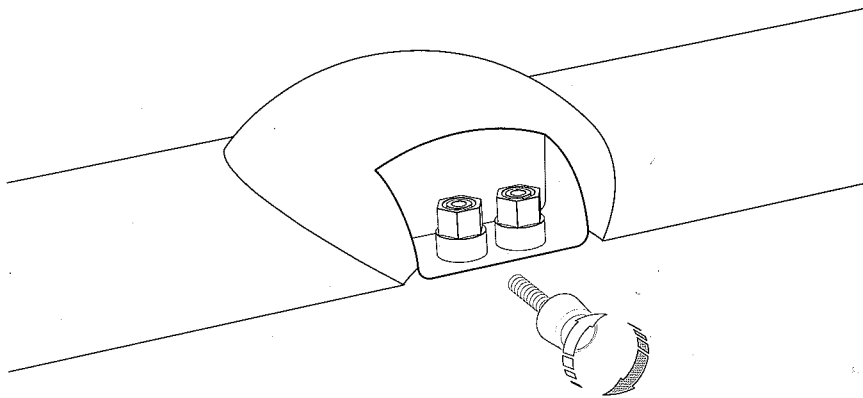


Figure 1

Important Safety Note: If there are small children in your family, make sure that the speaker cable that connects to the centre channel speaker cannot be pulled, as this could result in the speaker falling and causing injury. Taping the cables, either to the TV itself or to other cables at the rear of the TV set are possible options.

If the speaker is moved to a different position on or near the TV set, it is recommended that the degaussing procedure is followed each time, according to the TV manufacturer's guidelines.

Each speaker produces exceptionally low levels of external magnetic field, thanks to the type of magnetic shielding employed. However, some televisions are more sensitive to external magnetic fields than others. If yours suffers from colour staining, switch it off overnight at the mains switch. Switch it back on the following day and confirm that the staining has disappeared. If not, then it may be necessary for you to re-locate the centre-channel speaker.

Locating the speaker behind a projection TV screen may give acceptable results but this will depend upon the acoustic transparency of the screen material.

General Positioning Tips

Many factors can affect the way that a speaker sounds in a particular room. Of these, the room itself – its shape, size and furnishings – is very significant. KEF speakers are designed to be 'room-friendly' and interface well with the majority of rooms in which they are located. However, because of the almost infinite range of room shapes, sizes and furnishings, some experimentation with where you locate and how you connect your speakers is always worthwhile and can bring about significant improvements in the way your system performs.

Home Theatre installations involve a TV plus at least 5 speakers and a number of other items of ancillary equipment. Accommodating all this equipment in a domestic environment so as to obtain the best results requires careful planning. A common mistake is to automatically group the equipment around where the TV is placed – often because that is where the aerial or antenna connection is located. This is traditionally in a corner, which creates problems with placing left- and right-front channel speakers equal distances either side of the screen and positions the centre-channel speaker in a corner – which all adds up to a less-than-ideal situation (see Figs. 2–5). Consideration should also be given to the positioning of the rear surround-sound speakers. Normally these would be positioned as left rear and right rear, and mounted behind the listener. KEF flush-mounting speakers can be incorporated into a suitable ceiling or wall void and may better suit particular needs, rather than using conventional box speakers, hence obviating the need for speaker stands, wall brackets and trailing speaker wires.

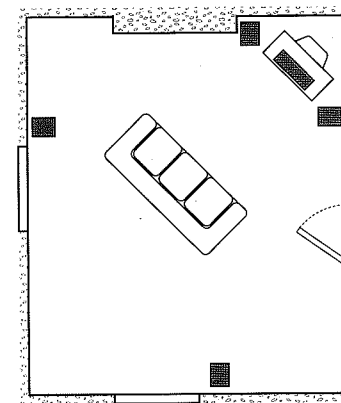


Figure 2

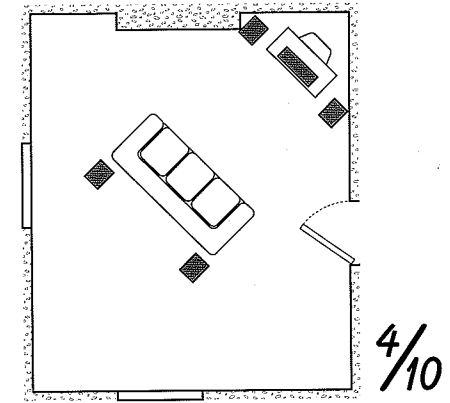


Figure 3

We recommend that you reassess the placement of the equipment and major items of furniture, at the outset, with the objective in mind of positioning the TV against a flat wall with left & right speakers equally spaced either side. This is not always possible to achieve and some compromises may need to be made, but it is better to aim for an ideal situation and just fail, than to start out with a bad set of compromises and have to live with less-than-optimum performance thereafter. See diagrams below for our suggestions. Contact your KEF dealer for further advice or write to KEF Customer Services Department.

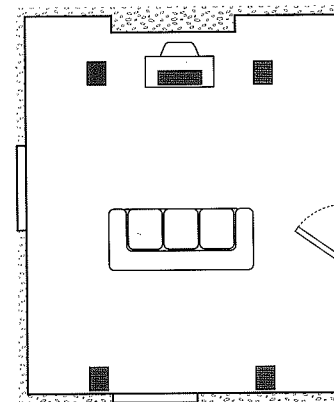


Figure 4

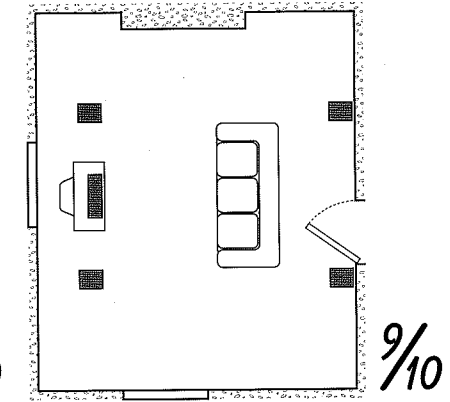


Figure 5

Speaker Cables

Poor quality cables can seriously affect the overall sound of your hi-fi system. KEF recommend that high quality speaker cable be used for connecting your loudspeakers. Increasing the length of the cables can also worsen the sound so it is good practice to keep the cables as short as possible. The left and right channel speaker cables should be the same length otherwise there may be a perceptible change in output level between the speakers. The excess cable should be folded neatly, concertina fashion and secured with a cable tie or elastic band. In a high resolution system, speaker cable differences may be detectable. In short, you should buy the best quality cables that you can afford.

Amplifier to Speaker Connections

All connections should be made with the amplifier switched OFF. Ensure the integrity of connection prior to switching the amplifier on.

These loudspeakers are fitted with one pair of specially designed terminals which will accept either bare wire or spade connectors.

Most good quality speaker cables have some indication, such as colour coding or 'ribbing' on the insulating material, as to which conductor is '+' or positive. Connection to the speakers can then be made as follows:

The left channel amplifier output terminal marked '+' or coloured RED connects to the left speaker terminal marked '+' (coloured RED). The left channel amplifier output terminal marked '-' or coloured BLACK connects to the left speaker terminal marked '-' (coloured BLACK). Similarly, these instructions should be followed for making connections between the right channel amplifier output and the right speaker.

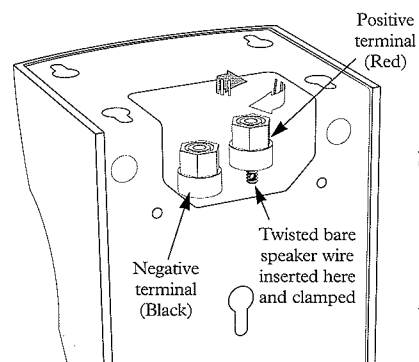


Figure 6

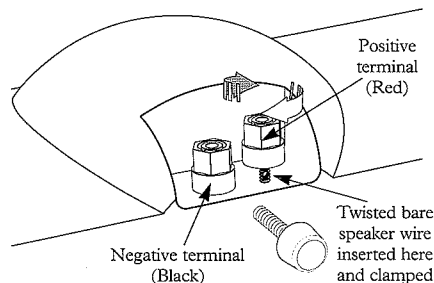


Figure 7

Bare wire connections are the most popular and involve stripping 12.5 mm ($\frac{1}{2}$ ") of insulation to expose the speaker wire core. (You should twist together, using clean fingers, the ends of each multi-stranded core prior to the next stage to ensure a better electrical contact). Having unscrewed the terminal cap, push the wire through the exposed hole in the terminal body and screw the cap down tightly (see Fig. 6 for 60S and Fig. 7 for 80C).

Make sure that no stray strands come into contact with the opposite terminal; this could cause a short circuit between the terminals and may damage your amplifier.

Speaker Phasing (Applies to 60S only)

Correct polarity is vital to the proper operation of any hi-fi system. Once you have made the connections described the sound from your speakers should be as we intended them to sound. However, if the stereo image is confused or you feel that the bass sound is weak then you should check the speaker phasing in the following manner:

Place the two loudspeakers about 5-7 cm (2-3") apart and facing each other. Play a recording which has plenty of deep bass such as an organ solo. Ensure that both speakers are working correctly. (Confirm that the amplifier balance control is in the centre position). When both speakers are connected IN-PHASE, you will perceive that the bass sounds full and deep. If the speakers sound weak and thin, switch off the amplifier and reverse the connections at ONE END ONLY of ONE speaker cable. Repeat the test. Performance should now be correct. No damage will be done to the speaker or amplifier if one speaker is connected out of phase, but performance will noticeably suffer.

Grilles

The cloth covered grille of the Model 60S and 80C loudspeakers are held in place by grille pegs. The grille can be removed during use, by gripping either the sides or the top and bottom of the grille and carefully easing the grille away from the cabinet; however, KEF recommends that they be replaced after use.

Amplifier Requirements and Power Handling

Conditions of use (room size, type of programme, preferred listening level) and the nature of the loudspeaker/amplifier interface vary so widely that it is not possible to lay down hard and fast rules about amplifiers and the loudspeakers they drive.

KEF loudspeakers are built to rigorous standards of quality and consistency and the upper limits of the amplifier requirements shown are those which the loudspeaker in question should handle without distress or damage when used under normal domestic conditions.

If higher than specified amplifier powers are used, great care should be taken to avoid abnormal conditions such as switch-on surges or gross distortion, either of the amplifier or the speaker, resulting in power peaks greatly in excess of the ratings specified. Care should be taken as the possibility still exists under certain conditions (such as excessive bass or treble boost caused by tone and/or loudness controls, graphic equalisers, etc.) that the speakers can be overloaded and damaged. The lower limits of amplifier power are those necessary to give a reasonable sound pressure level under domestic conditions.

Remember it is always just as easy to damage the loudspeaker by using a small amplifier driven into distortion by too much volume possibly with bass and treble boost, than by using a larger amplifier which has power in reserve. If in doubt, ask your dealer.

If you are about to purchase a new amplifier, KEF recommends that you audition your potential purchase with the speakers of your choice before you buy.

Warranty

Your KEF loudspeakers are guaranteed against manufacturing defects in both materials and workmanship. For further details of how this guarantee affects you, please read the enclosed Warranty leaflet. It should be noted, however, that failure of the loudspeaker due to abuse, improper or inappropriate use and/or operation or damage caused by other faults in your system are NOT covered within the terms of the guarantee. The warranty is also void if a serial number has been removed or defaced.

Service Information

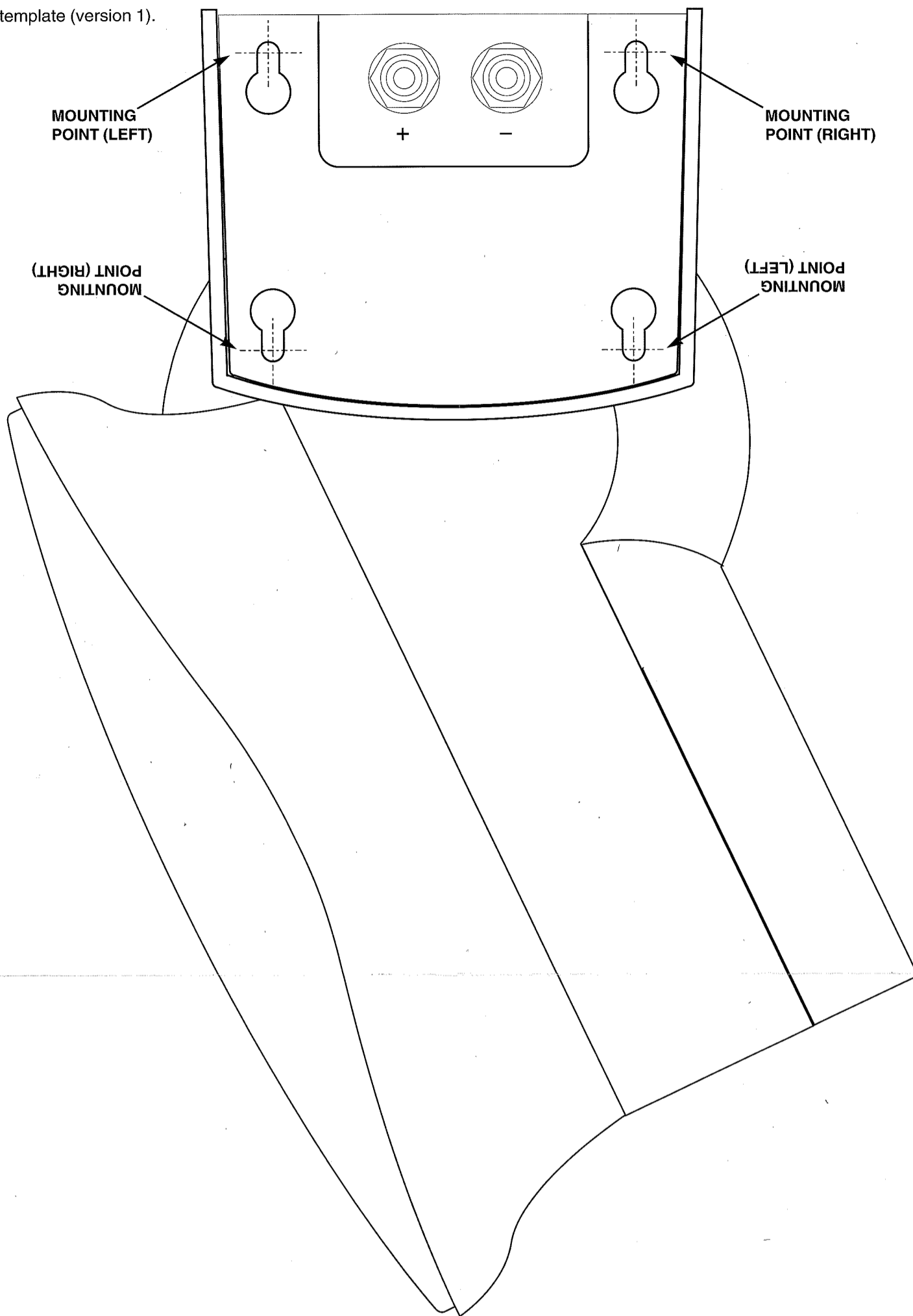
Loudspeakers are inherently reliable and rarely give trouble. It is important to remember that faults arising in any part of the reproducing system will be heard via the loudspeakers and therefore when faults occur, careful and analytical diagnosis will be required to locate the actual source of trouble. 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 CD's but not, for example, when using a radio tuner is unlikely to originate with the loudspeakers.

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

Customer Services Department
KEF AUDIO (UK) Limited,
Eccleston Road, Tovil,
MAIDSTONE,
Kent, ME15 6QP UK
Telephone No.: +44 (0)1622 672261
Fax No.: +44 (0)1622 672939
CompuServe: 76702,2600

Distributed in U.S.A. by:
KEF Electronics of America Inc.
89 Doug Brown Way,
Holliston,
MA 01746 USA
Telephone: +1 (508) 429 3600
Fax: +1 (508) 429 3699.

Figure 8.
Mounting template (version 1).



1. Determine which mounting template you require (Fig. 8 or Fig. 10) and follow instructions on same page.
2. Cut or fold the sheet on dotted line to use as template. This shows the approximate maximum area required for placement and free movement of speaker.
3. Place template onto wall in required orientation and position making sure speaker is not obstructed in the direction you require movement.
4. Use a bradawl or other sharp point to mark the centre of the **TOP PAIR** of **MOUNTING POINTS ONLY**.
5. Drill & wall plug the marked points and fix screws leaving a clearance of approximately 4mm (see Fig. 9).
6. Hang speaker onto screws. Remove speaker and tighten or loosen screws as necessary.

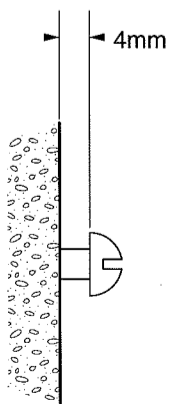
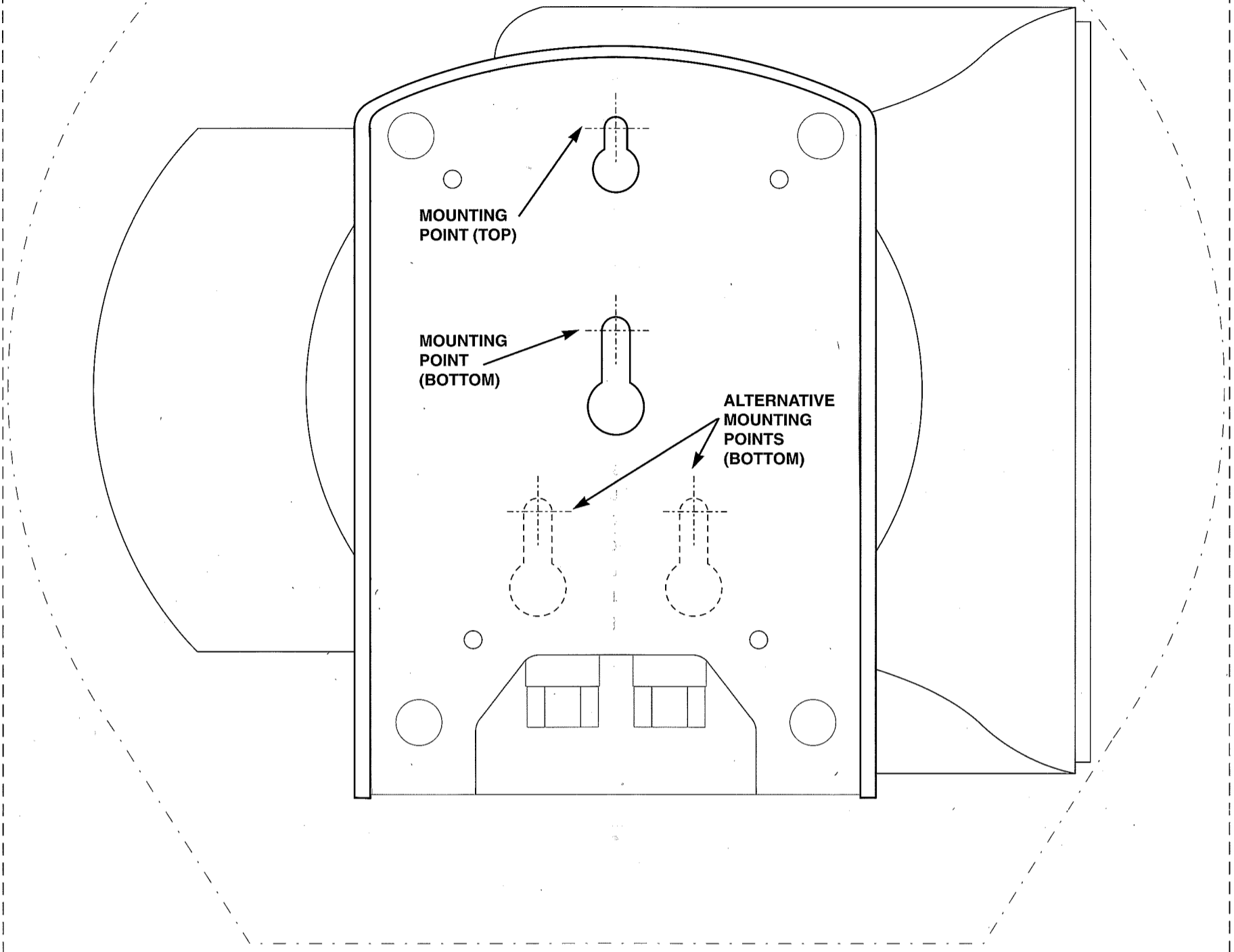


Figure 9. Screw head clearance for template on this side (Version 1).

Figure 10.
Mounting template (version 2).



1. Determine which mounting template you require (Fig. 8 or Fig. 10) and follow instructions on same page.
2. Cut or fold the sheet on outside dotted line to use as template. The inner dotted line shows the approximate maximum area required for placement and free rotation of speaker.
3. Place template onto wall making sure speaker is not obstructed in the direction you require movement.
4. Use a bradawl or other sharp point to mark the centre of the **MOUNTING POINTS**.
5. Drill & wall plug the marked points and fix screws leaving a clearance of approximately 7mm (see Fig. 11).
6. Hang speaker onto screws. Remove speaker and tighten or loosen screws as necessary.

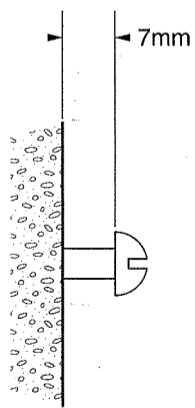


Figure 11. Screw head clearance for template on this side (Version 2).