

Specifications, Warranty and Service

Specifications	KH 800	KH 1000	KH 1200	KH 210	KH 2210
Type	2 Way	2 Way	3 Way	3 Way	3 Way
Nominal Impedance	8 Ohms	8 Ohms	4 Ohms	4 Ohms	4 Ohms
Recommended Amplifier Power	25-125 Watts	25 -125 Watts	25 -150 Watts	30 -250 Watts	25 -150 Watts
Power Handling					
Continuous Programme	50 Watts 100 Watts	70 Watts 140 Watts	100 Watts 200 Watts	100 Watts 200 Watts	150 Watts 300 Watts
Sensitivity (1W@1m)	88 dB	90 dB	90 dB	90 dB	90 dB
Frequency Response	50Hz - 20kHz	45Hz - 20kHz	45Hz - 20kHz	40Hz - 20kHz	38Hz - 20kHz
Bass Unit	200 mm	200 mm	300 mm	250 mm	2 x 250 mm
Midrange Unit			2 x 100 mm	170 mm	170 mm
Treble Unit	2 x 25mm Textile Dome PTC Protected	2 x 25mm Textile Dome PTC Protected	2 x 25mm Textile Dome PTC Protected	25mm Textile Dome PTC Protected	25mm Textile Dome PTC Protected
Dimensions Overall					
H x W x D mm	280 x 469 x 248	306 x 504 x 263	356 x 554 x 288	900 x 304 x 308	1100 x 304 x 308
H x W x D inches	11 x 18.5 x 9.8	12 x 19.8 x 10.4	14 x 21.8 x 11.3	135.4 x 12 x 12.1	43.3 x 12 x 12.1

Wharfedale KH speakers are compatible with 4-16 Ohm amplifiers

Warranty

Your KH Series loudspeakers are typically warranted for 12 months from date of purchase, though the warranty period and conditions are subject to regional variations and local terms of sale. During this period faulty equipment will be repaired or replaced free of charge to the original purchaser. This warranty excludes carriage charges to the dealer or service centre. Items returned for service which are not faulty or are damaged by misuse or neglect are not covered by the warranty and are chargeable.

International Service Centres

A list of International Distributors and Service Centres is available from Wharfedale UK, or via the Wharfedale website, www.wharfedale.co.uk.

UK

Wharfedale International Ltd.
IAG House, Sovereign Court,
Ermine Business Park,
Huntingdon, Cambs PE29 6XU,
England.
Tel: +44 (0)1480 447700
Fax: +44 (0)1480 43176

USA

IAG America, Inc.
15 Walpole Park South
Walpole
MA 02081
Tel: +1 508 850 3950

CANADA

Korbon Trading Ltd
6800 Kitimat Road
Units 19-20
Mississauga
Ontario
Tel: +1 905 567 1920

Wharfedale

Loudspeaker Manufacturers since 1932

In 1932, when Gilbert Briggs founded the Wharfedale Wireless Works, his company was at the leading edge of an exciting new technology which was dedicated to bringing the pleasure of music and entertainment to a wide range of people. As the technology advanced Wharfedale gave many music lovers their first taste of High Fidelity, mounting a series of live sound demonstrations which excited the audio world and heralded the era of the modern hi-fi loudspeaker.

Today Wharfedale still takes the same uncompromising approach to the design and manufacture of every loudspeaker system, using high quality components and state-of-the-art testing to ensure consistently high performance. And that means that you can continue to count on the quality of all Wharfedale products.

The name 'WHARFEDALE' is a registered trademark of Wharfedale International Limited.

Wharfedale has a policy of continuous product development and reserves the right to change specification without notice.

KARAOKE AND HOME CINEMA LOUDSPEAKER SYSTEM



USER INSTRUCTION MANUAL

Wharfedale

BRITAIN'S MOST FAMOUS LOUDSPEAKERS


IMPORTANT SAFETY INFORMATION



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. PROTECT loudspeaker connecting cords from being walked on or pinched, particularly at the point where they exit from the apparatus.
9. ONLY USE attachments/accessories specified by the manufacturer.
10. USE only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
11. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
12. WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.
13. WARNING: The product must not be exposed to dripping and splashing and no object filled with liquids such as a vase of flowers should be placed on the product.
14. DO NOT place heavy objects on top of loudspeakers
15. WARNING: No naked flame sources, such as candles must be placed on the product.
16. CAUTION: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

General advice when using loudspeakers

- DO NOT make or change any connections to your any part of your system unless the entire system is switched off at the mains.
- DO NOT use your amplifier at its maximum volume setting. The resulting high levels of distortion may damage your loudspeakers.
- DO turn down the volume control on your amplifier or receiver before turning the equipment on or off, or when changing sound sources.
- WALL OR CEILING MOUNTING: The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
- AVOID trailing cables across open floors where they can be a source of danger.
- SITE these speakers at least 500mm from TV screens and other magnetically sensitive apparatus.
- FOR safety, you should operate these loudspeakers with the grilles attached.

INTRODUCTION

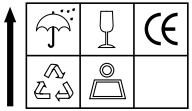
The Wharfedale KH Series is a range of robust, efficient loudspeakers ideal for Home Theatre, Home Karaoke and Stereo applications.

The KH 800, KH1000 and KH1200 are intended for wall mounting, though they can be stand or shelf mounted. These models feature the 'Baker Effect'. By mounting the high frequency drive units in a calculated relationship, and carefully contouring the crossover networks, these loudspeakers can reproduce dramatic stereo in almost any listening position. They may be used as main or rear effects speakers and are ideal in karaoke applications.

The KH 2110 and 2210 are powerful floor standing models ideal for large rooms.

The tweeters on all models feature auto-resetting protection devices in case of accidental overload, especially when used in Karaoke applications.

UNPACKING YOUR LOUDSPEAKERS



Carefully remove each loudspeaker from its packing. Be especially careful not to damage the cabinet when removing the polythene bag. DO NOT attempt to lift the loudspeaker by the polythene bag.

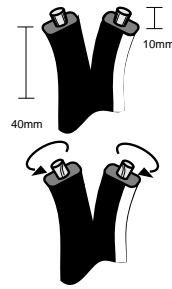
If any items are damaged or missing please report this immediately to your Wharfedale supplier.

The KH 2110 and 2210 are large and heavy. If you cannot manoeuvre these units by yourself, get someone to help you.

Retain the packing for future use. If you decide to dispose of the packing, please do so safely. Please retain your purchase receipt for future reference.

CONNECTIONS AND TERMINALS

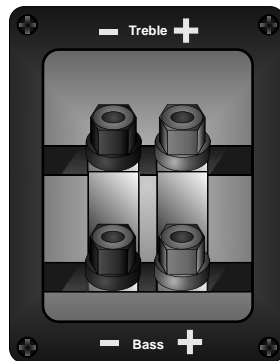
Specialist audio cable usually offers better performance than general purpose 'bell' or 'zip' wire. Choose a cable of suitable diameter - cable that is too thin will limit the dynamics of the sound and may impair the bass response. Audio cable is polarised, with two cores of different colours, or often a raised rib or coloured tracer in the case of twin cable.



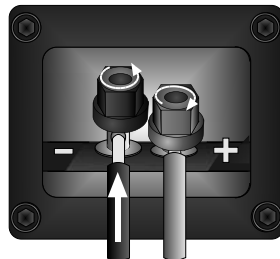
Split the twin cores to a depth of about 40mm. Carefully strip the insulation from each end, leaving about 10mm of bare wire. If the cable is stranded, lightly twist to gather any loose strands.

Crossover Networks

The KH 2110 and 2210 loudspeakers use a bi-wireable crossover panel with four terminal posts. This is shown in the lower drawing. The upper pair of terminals connect to the treble unit, the lower pair to the bass unit. As supplied, the treble terminal pair is connected to the bass terminal pair via removable metal straps. These should be left in place for standard installations.



The KH 800, KH1000 and KH1200 use a conventional twin terminal crossover panel. This is shown in the lower drawing.

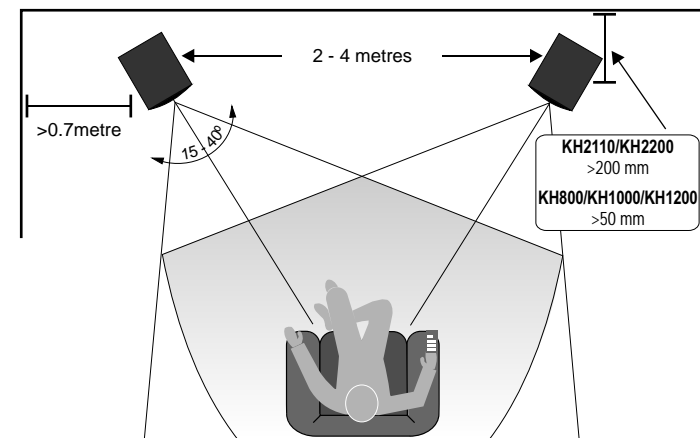


Connecting Terminals

Unscrew the terminal. Thread the bared end of each cable through the hole in the bottom of the terminal. Ensure there are no loose strands of wire which may touch adjacent terminals. Retighten the terminal securely. The drawing on the right illustrates the method.

POSITIONING THE LOUDSPEAKERS

Before connecting your speakers, you should determine their position.



If the loudspeakers are placed too close to the walls the bass will increase but may be boomy. If the loudspeakers are placed further away from the walls, the inward angle may be increased by up to 40%, although this may restrict the width of the optimum listening position. The speakers should ideally be positioned so that the treble units are at ear level to a seated listener. A useful rule of thumb is that the listener should be as far from the loudspeakers as they are from each other. As personal taste plays a large role, experiment with different configurations and play a wide range of programmes before finalising the position of your speakers.

Refer to the diagram on the previous page for guidance on positioning Floor and Stand mounted loudspeakers

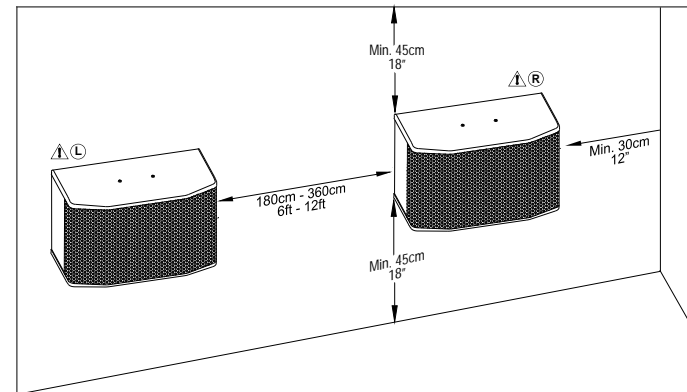
The KH 2110 and 2210 are designed to be floor standing. We suggest that they are positioned at least 200 mm from the rear walls and 700 mm from the side walls, facing slightly inwards.

Mounting the KH 800, KH1000 and KH1200

The KH 800, KH1000 and KH1200 should ideally be wall mounted though they may be placed on stands or a rigid shelf. The bass extension will improve if these speakers are operated closer to the rear walls.

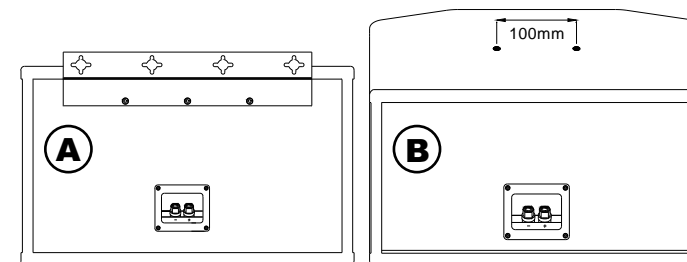
Important Note: The KH 800, KH1000 and KH1200 are supplied in mirror pairs. Each loudspeaker is labelled **L** or **R** indicating that it is to be used as the Left or Right speaker. This positioning *must* be followed or poor performance will result.

The drawing below gives a general guide to positioning the speakers. Before you attempt wall or ceiling mounting, ensure the surface is stable and strong enough to support the weight of the speaker and mounting hardware.



The speaker may be attached using a proprietary bracket or a pair of wall mounts screwed securely to the speaker and the wall as shown in Figure A.

Alternatively the speaker may be 'flown' using standard ceiling mount hardware. Two M8 bolts are embedded in the top panel at an interval of 100 mm to serve as flying points and the ceiling hardware should match this interval. See Figure B.



CONNECTING YOUR LOUDSPEAKERS

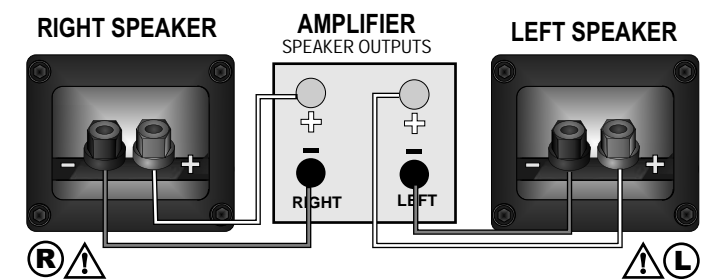
Standard Connections

Choose a suitable length of twin core speaker cable for each channel. Prepare the ends as described above. Connect the red, positive (+) terminal of the Left loudspeaker to the corresponding red, positive (+) amplifier terminal. Connect the black, negative (-) terminal of this speaker to the corresponding black, negative (-) amplifier terminal. Repeat for the Right Channel. Tighten all terminals securely. Do not leave loose strands of wire which may short out adjacent terminals.

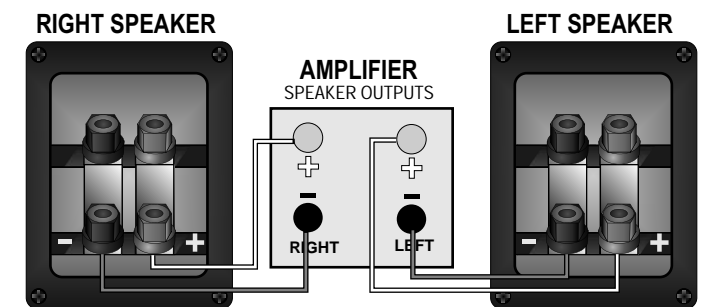
KH 2110 and 2210 : You may connect these using either the upper or the lower pair of terminals. For standard connections leave the connecting straps in place.

Refer to the drawings for guidance.

Standard Connections: KH 800, KH1000 and KH1200



Standard Connections: KH2110 and KH 2210

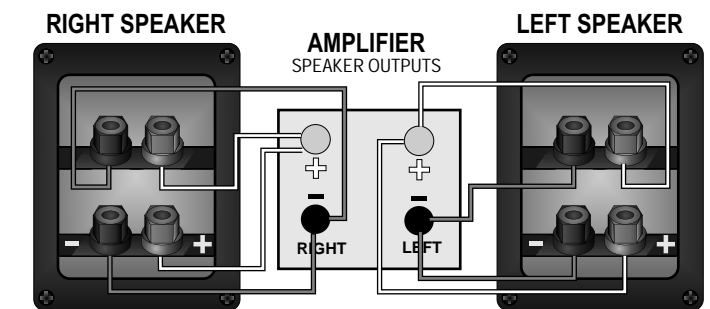


Bi-Wiring Connections: KH2110 and KH 2210

Using separate cables for treble and bass units in a Bi-Wiring configuration reduces intermodulation effects and improves headroom and clarity. To bi-wire, you will need to install two lengths of twin core cable between the amplifier and each loudspeaker.

Unscrew each terminal a few turns and remove the metal straps. Connect the cables between the amplifier and the loudspeakers as indicated above and retighten all the terminals securely.

Note: Some amplifiers have two pairs of output terminals to facilitate bi-wiring but this is not essential. The advantages of bi-wiring are fully retained if your amplifier has only one pair of output terminals per channel (as in the illustration below).



PHASE

When you are sure that all connections are correct you may switch on the system. It is essential that all loudspeakers are connected properly (in phase): with the Positive (+) terminals of all the speakers connecting to the Positive (+) terminals of the appropriate loudspeaker terminals on the amplifier, and the Negative (-) terminals similarly connected. If the loudspeakers sound bass light with a poorly focussed image the speakers may be out of phase. In the case of the KH 800, KH1000 and KH1200, remember to position the L and R speakers correctly.

INSTABILITY AND 'HOWL ROUND'

If you point a microphone towards a loudspeaker, or operate a vinyl turntable very close to a speaker at high volume levels, you may produce a burst of instability (positive feedback) which will cause the system to oscillate or 'howl'. In extreme cases this will switch the tweeter protection on and the tweeters will cut out. Should this happen, turn the system volume control to 'OFF' immediately. Removing the cause of the feedback will restore normal operation.