Chartwell LS6 Monitor Loudspeakers

Owner's Manual

Thank you for purchasing this loudspeaker system from Graham Audio, which was hand-built using the finest materials. Used carefully, they will provide many years of listening enjoyment.

Please spend a few minutes reading these instructions before using your new loudspeakers.

Positioning your loudspeakers

The Chartwell LS6 is intended to be mounted on stands that bring the tweeter up to ear level. Graham Audio can supply dedicated stands that are designed to work in domestic environments; taller stands for professional use can be produced to order.

Alternative stands can be used, provided they are rigid and non-resonant. Test metal stands with hollow upright sections by rapping them with a knuckle, and consider filling them with dry sand or similar to eliminate any ringing.

For safety reasons, please ensure that the top surface of the stand is of similar dimensions to the loudspeaker. There are many options for the interface between the bottom of the loudspeaker and the top of the stand, but some might damage the bottom of the loudspeaker – small pads of foam, felt or cork can work well, as can small self-adhesive rubber feet. Between the bottom of the stand and the floor, spikes are recommended for carpeted floors, which must be carefully adjusted to ensure the stand is absolutely stable. Periodically check these spikes as they can work loose. For other floor types, spikes might not be appropriate – contact your dealer for advice.

As is normal, determining the optimum position for your loudspeakers in your listening room should be the subject of some experimentation. As a starting point, try positioning them such that you and the two loudspeakers form an equilateral triangle. If possible, try to keep them away from side walls, as reflections from these might affect the stereo image. Remember also that the distance between the loudspeakers and the rear wall will have an effect on the bass level and quality. In a rectangular room, you can usually expect best results from pointing the loudspeakers across the narrow dimension of the room, but every room is different, and there are no firm rules! The loudspeakers should be angled in to face you, but again, this can be varied according to taste.

Nearly every listening room can be improved with acoustic treatment. A thick carpet (or large rug) is recommended, as reflections from hard floors are always detrimental. Large expanses of bare walls can be similarly problematic, and reflections from these can be treated with absorbent materials or diffused with irregular surfaces such as bookcases. In professional environments, acoustic treatment is the norm.

Connecting your loudspeakers

Please ensure that the cables are long enough to be neatly dropped down behind the stand to minimise the risk of them being pulled from the stand.

Always switch off the amplifier when connecting up the loudspeakers because some amplifiers can be damaged by even a brief short circuit.

For best results, we recommend that you use stranded cable with a cross-sectional area of 2.5mm^2 (the majority of “79-strand” cables should meet that specification). Remember that some specialist loudspeaker cables can have unusual electrical characteristics that adversely affect the operation of some amplifier-loudspeaker combinations, so seek advice from your dealer if in any doubt.

There is a single pair of terminals on the rear of each loudspeaker which accept bare wire, spade connectors, or 4mm plugs. The latter is recommended for convenience and connection quality.

The terminals are colour-coded red and black, and it is essential that for each loudspeaker the red terminal of your amplifier connects to the red terminal of the loudspeaker, and likewise for the black terminals. If the bass seems weak, and/or the stereo image is indistinct, check that both loudspeakers are connected to the amplifier with the same polarity.

Listening recommendations

Your Chartwell loudspeakers are extremely revealing of problems in the preceding audio chain, and should be partnered with high quality equipment. In particular, low powered amplifiers driven into clipping will sound especially poor with any high quality monitor loudspeaker.

We recommend using an amplifier with between 50 and 150 watts per channel. The lower figure might be suitable for domestic use in smaller rooms, but in a larger space – or for professional use – a more powerful amplifier will be required. Please note that these numbers can only be an approximate guide.

The loudspeakers were voiced with the grilles in place and it is recommended that the grilles be left on at all times. The grilles are retained using hidden neodymium magnets and can be readily removed if desired.

Behind the grille is a tweeter level adjustment switch which is intended for fine-tuning the treble response. The adjustment is relatively subtle and in most listening rooms best results will be found with the switch in the default “0” position, but experimentation is encouraged.

Caring for your loudspeakers

Retain all packing materials for future use. The natural wood veneer should be cleaned regularly with a soft clean cloth. Avoid wax-based furniture polishes and all forms of solvents. Remove the grille before cleaning the cloth with a soft brush, and replace to keep dust out - avoid touching the diaphragms of the drive units. Like any wooden item, the loudspeakers should be placed in a dry environment, away from sources of heat and out of direct sunlight.

Specifications

System	2 way reflex	**Nominal impedance**	8Ω
Enclosure	Thin wall damped	**Sensitivity**	87dB SPL (2.83V, 1m)
Finish	Real wood veneer	**Maximum output**	Over 100dB for a pair at 2m
Dimensions (h/w/d)	24cm by 37cm by 26cm	**Bass/midrange**	165mm Polypropylene
Weight	9.5kg	**Tweeter**	19mm Dome tweeter
Frequency response	45Hz to 20kHz ±2dB	**Recommended amplifier power**	50 to 150 watts unclipped programme