

# LS5/9f 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 Graham Audio LS5/9f is a floor-standing loudspeaker with an integrated plinth that includes provision for spikes, which are recommended for carpeted floors - they must be carefully adjusted to ensure the loudspeaker is absolutely stable, and periodically checked to ensure they have not worked 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 loudspeaker to minimise the risk of trip hazards.

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<sup>2</sup> (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 Graham Audio 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 200 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

<b>System</b>	2 way reflex	<b>Nominal impedance</b>	8Ω
<b>Enclosure</b>	Thin wall damped	<b>Sensitivity</b>	89dB SPL (2.83V, 1m)
<b>Finish</b>	Real wood veneer	<b>Maximum output</b>	Over 104dB for a pair at 2m
<b>Dimensions (h/w/d)</b>	105cm by 35cm by 37cm (including plinth)	<b>Bass/midrange</b>	200mm Diaphnatone Polypropylene
<b>Weight</b>	25kg	<b>Tweeter</b>	34mm Audax HD13D34H
<b>Frequency response</b>	40Hz to 20kHz ±2dB	<b>Recommended amplifier power</b>	50 to 200 watts unclipped programme