



Loudspeaker positioning and room acoustics

All Spendor 'S' series loudspeakers are carefully engineered to suit a wide variety of listening rooms. Please use the following guidelines to ensure they are correctly positioned in your room.

In any normal room a significant amount of sound is heard indirectly as reflected sound. When the reflections are symmetrical for the left and right loudspeakers you will obtain the smoothest and clearest sound with the most vivid stereo image. For a stereo music system try to position the loudspeakers either side of the room main axis 2.0-2.4m apart and, if possible, at least 2.4m in front of the main seating area. The cabinets should be at least 45cm away from any boundary wall. See Fig 1.

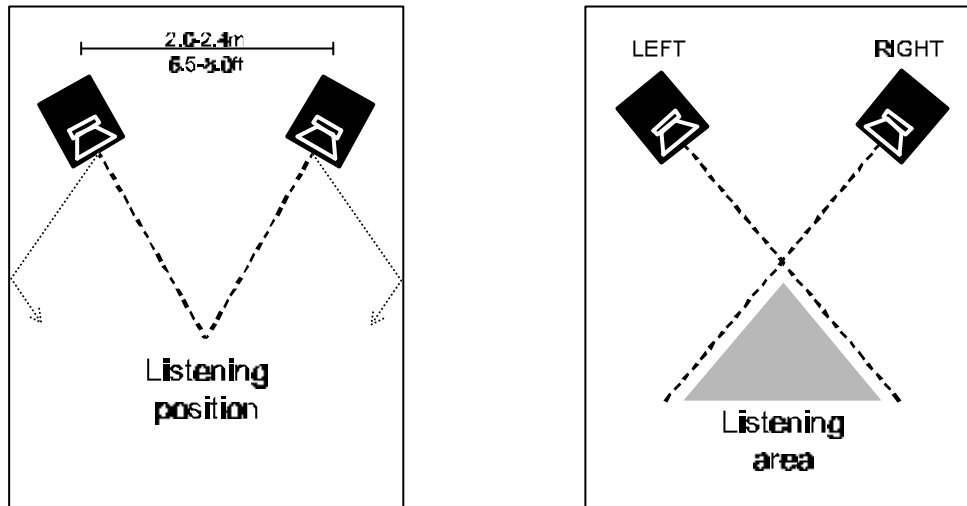


Figure 1 Single fixed position may be too restrictive for domestic listening

'Toe-in' – a convenient way to increase the listening area

As a loudspeaker is moved close to a wall or corner you will notice the bass level appears to increase. This is the result of low frequency sound reflection. Although the bass output in some frequency bands is increased, there is cancellation in the adjacent bands (Fig 2) and the sound can become uneven in character. If a loudspeaker has to be placed close to a corner the distances from each surface should differ by at least 15cm. This reduces the effect of phase (time) delays between sound reflections from the side and rear walls and the sound radiated directly by the loudspeaker to minimise peaks and dips in the sound. Tip: Ask someone to speak normally in your room. Then ask them to speak with their head close to a room corner, you will notice the sound becomes heavy and muddled. A loudspeaker is affected in exactly the same way and you will know immediately why a loudspeaker should not be positioned tight in a corner!

- Optimum room position
- Corner position

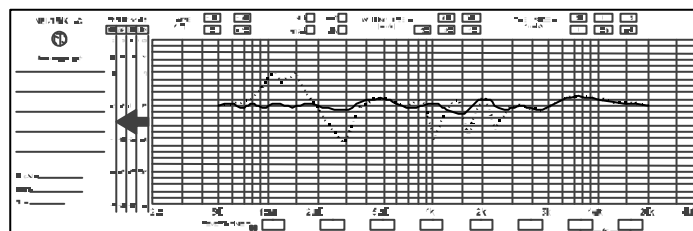


Figure 2 Loudspeaker Response Curves

Mid and high frequency reflections from a close wall or large reflective (hard) surface can impair the stereo image and obvious or more subtle 'echoes' may cause the sound to lose its clear and smooth quality. Ideally your room should have a good mix of hard and absorbent surfaces to even out and randomise any reflections and room resonances. Absorbent furnishings, drapes, carpets and wall rugs can be very effective. Do not place loudspeakers immediately adjacent to very absorbent soft furnishings or the sound may become unnaturally dull. Irregular surfaces like book shelves can help to improve the room acoustics.

As soon as you are familiar with your new loudspeakers spend a little time experimenting with different positioning while listening to some of your favourite music. A small adjustment can often result in a large improvement.

For multi-channel surround sound or home theatre installations it is often beneficial to position the loudspeakers (including the centre channel and sub-woofer) assymmetrically relative to the room main axis, your Spendor dealer/installer will advise.

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Basic connection and quick set-up

All loudspeakers need to be rigidly mounted to ensure a clean and clear sound. Always use the supplied technical stabiliser and foot spikes. Switch off your amplifier(s). Check that the supplied terminal links are installed between the HF and LF inputs. For information on bi-wiring and bi-amping see later. Always connect the -ve (usually black) loudspeaker output terminal of the amplifier to the corresponding -ve (Black) terminal on the loudspeaker. Always connect the +ve (usually red) loudspeaker output terminal of the amplifier to the corresponding +ve (Red) terminal on the loudspeaker. Always connect the left channel amplifier output to the left loudspeaker and the right channel amplifier output to the right loudspeaker. Make the connections as shown below (Fig 3) only the left channel connection is shown. Turn the volume control down and switch on the amplifier. Pick a source (CD, FM etc.) and advance the volume control carefully.

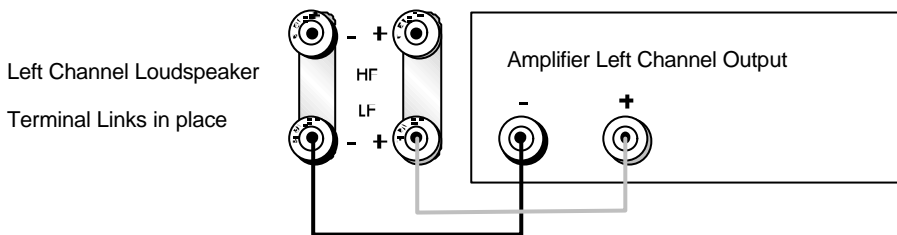


Figure 3 Loudspeaker Connections – Single Wiring

Bi-wiring

Bi-wiring improves sound quality by separating the current paths for Low (LF) and High (HF) frequencies. Make the connections as shown below (Fig 4) only the left channel connection is shown. Store the terminal links safely.

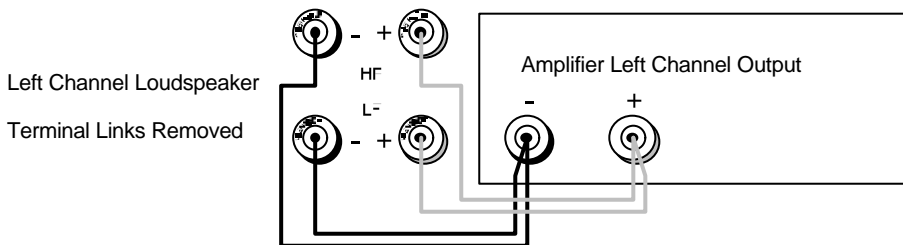


Figure 4 Loudspeaker Connections for Bi-wiring

Bi-amping

Bi-amping allows two independent audio power amplifier of equal or similar quality to be used for LF and HF signals. The benefits of bi-amping include reduced intermodulation distortion because the low and high frequency signals are amplified independently, and more power reserve and dynamic range because each amplifier has less 'work' to do than a corresponding single amplifier. For bi-amping make the connections as shown below (Fig 5), only the left channel connection is shown. Terminal links MUST be removed before bi-amping. Store the terminal links safely.

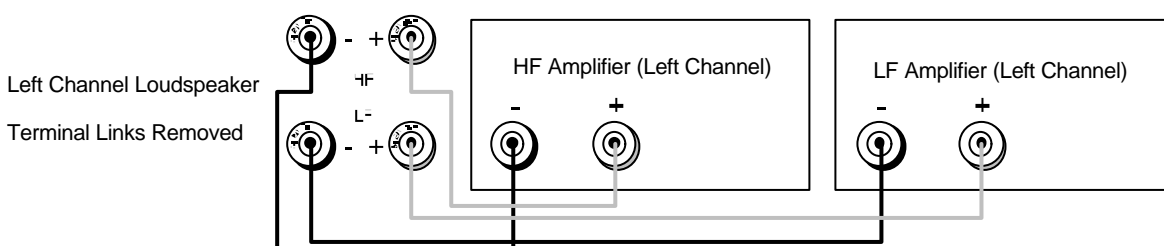


Figure 5 Loudspeaker Connections for Bi-amping

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Cable Quality

Loudspeaker cables can have an important effect on sound quality. Choose good quality low resistance cables with high purity metal conductors and low-loss dielectric (insulation). Ask your dealer for advice on cables to suit your system and budget.

Loudspeaker Power Rating

The technical specification shows a nominal power rating for your loudspeaker and the figure can be taken as a rough guide to the power rating (Watts per channel into 8ohm load) for a complementary amplifier. However, provided you NEVER play at levels where the sound is strained or distorted, the power rating is not critical provided you have a minimum of about 30 Watts per channel and a maximum of 250 Watts per channel available. If the sound is strained always turn the playing level down immediately. Ask your dealer for advice if you are unsure or if you are choosing a new amplifier.

Caring for your Loudspeakers

Spendor's real wood veneers and solid timber elements should be treated like high quality furniture. Routine dusting with a soft cloth is recommended. Do not apply any aerosol spray directly as this could damage the drive units or grille fabric. Dust on the grille cloth can be removed with a sticky roller or a piece of sticky tape or by gentle vacuuming with a soft brush adaptor. Do not expose the cabinets to damp, widely fluctuating temperatures or direct sunlight, appearance and performance may suffer. Spendor 'S' series cabinets are finished in natural wood, over time the wood will age and mature, evening out and often darkening the surface colour while highlighting the natural grain and patina.

Queries and Service

If you require advice or service on your audio system please contact your Spendor dealer. We recommend that you retain all the packaging for your loudspeakers in case you need to transport them safely in the future.

Warranty

All Spendor 'S' Series loudspeakers (The Equipment) are guaranteed against defects in components and materials for a period of 5 years from date of purchase. Within this period parts will be replaced free of charge provided that failure is not due to accident, negligence or misuse. Labour and carriage are not covered except by local agreement. The guarantee offered does not affect the consumer's statutory rights. To obtain Service under guarantee the equipment together with an original or clear copy of proof of purchase must be delivered to a local Spendor dealer or distributor at the owner's expense. Spendor Audio Systems Ltd and any of its authorised distributors or dealers reserve the right to refuse service under guarantee if the equipment has been subject to unauthorised modification or any of the serial numbers identifying the equipment have been defaced or removed.

Please register ownership of your Spendor loudspeakers by completing and returning the enclosed registration card. This will help us to deal quickly with any queries regarding your equipment.

Specification Spendor S6e

Description	2 way floor standing loudspeaker
Enclosure type	Spendor 3D linear flow reflex
Drive unit HF	27mm coated fabric dome, damped vented enclosure
Drive unit LF/MF	180mm ep38 polymer cone
Frequency response	48Hz - 20kHz \pm 3dB on reference axis
Frequency range	-6dB at 36Hz
Dispersion	Within 3dB of response on reference axis Horizontal over 40° arc \pm 20° Vertical over 20° arc \pm 10°
Sensitivity for 1W @ 1m	88dB
Impedance nominal	8 ohms
Impedance minimum	6.2 ohms
Crossover frequencies	4.0kHz
Power handling	15-250 watts into 8 ohms unclipped
Harmonic distortion	< 1% 100Hz-20kHz 90dB @ 1m
Connections	2/3 way gold-plated bi-wirable terminals
Magnetic shielding	All drive units shielded
Dimensions H x W x D	875 x 192 x 300mm (34.4 x 7.6 x 11.8 in)
Plinth maximum W x D	281 x 320mm (11.1 x 12.6 in)
Spikes/feet/stand height	37 \pm 3mm
Net weight	18.0kg (39.7 lb)
Shipping weight	20.5kg (45.2 lb)
Accessories supplied	Spikes and lock nuts
Cabinet real wood finishes	Cherry, Maple, Rosenut, Black ash

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