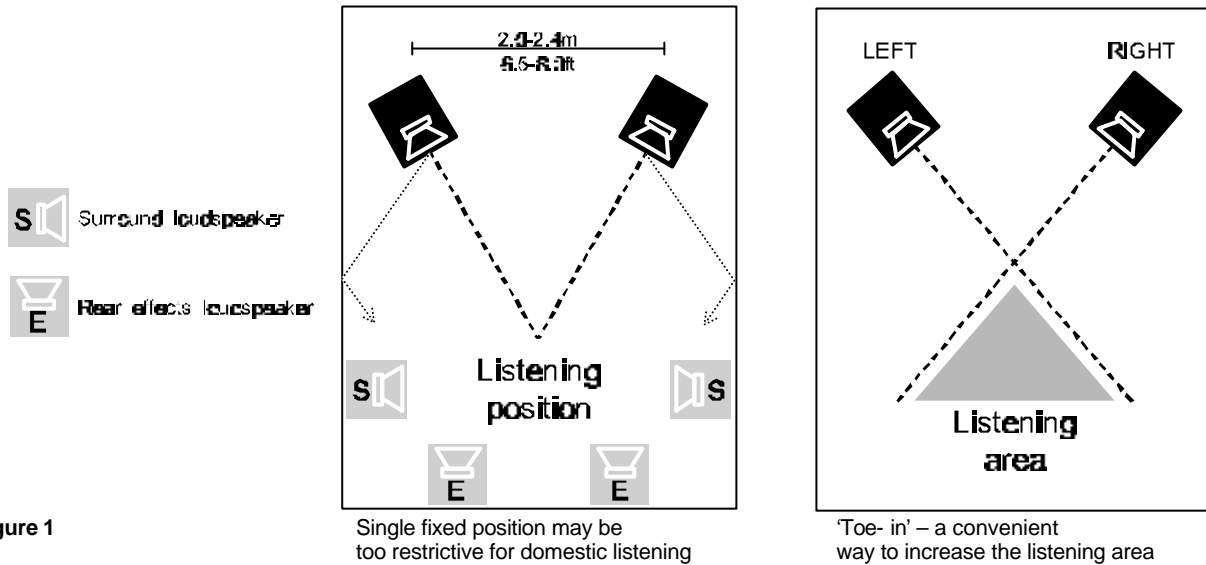




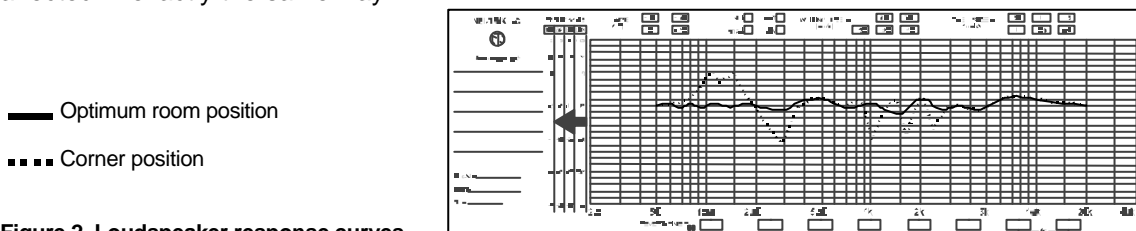
Loudspeaker positioning and room acoustics

Spendor loudspeakers are carefully engineered to suit a wide variety of listening rooms. Please use the following guidelines to ensure they are correctly installed for optimum performance.

The Spendor S3/5^{se} is designed to be used on a rigid stand 60-80cm high. Alternatively it may also be used on an open shelf or wall bracket. When used as a surround loudspeaker (in multi-channel music or film surround-sound set-up) position the loudspeakers to the sides or slightly behind the main listening area. In a normal room a significant amount of sound is heard indirectly as reflected sound. When these 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. See Fig 1.



When a conventional loudspeaker is moved close to a wall or corner you will notice the bass level appears to increase and the sound becomes uneven and unnatural in the mid range. This is the result of low frequency sound reflections. While the bass output in some frequency bands is increased, there is cancellation in the adjacent bands (Fig 2). If you are forced to place your loudspeaker close to a corner the distances from each wall surface should differ by at least 15cm. This reduces the effect of time (phase) delays between sound reflections from the side and rear walls and the sound radiated directly by the loudspeaker, and it minimises 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.



Mid and high frequency reflections from walls 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 e.g. furniture, drapes, carpets, rugs and book shelves to even out and randomise the reflections and room resonances. Do not place loudspeakers close to very absorbent soft furnishings as the sound may become unnaturally dull.

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 change in position or angle can often deliver a substantial improvement in sound.

The Spendor S3/5^{se} uses a special tweeter with no magnetic shielding, the stray flux outside the cabinet is low, but take care not to place the loudspeaker very close to any magnetically sensitive screens or equipment. The bass driver magnet is fully shielded.

Basic connection and quick set-up

All loudspeakers need to be rigidly mounted to ensure a clear and focussed sound. 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). Turn the volume down and switch on the amplifier. Pick a source (CD, FM etc.) and advance the volume carefully.

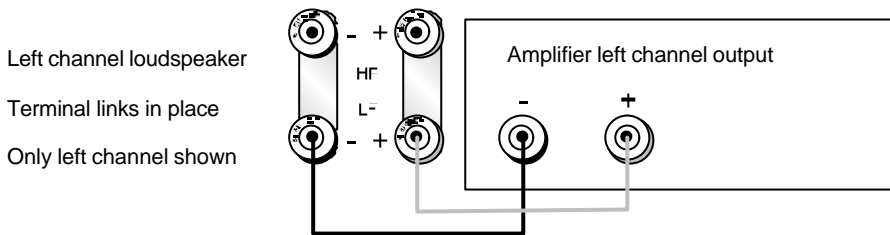


Figure 3 Loudspeaker Connections – Single Wiring

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). Store the terminal links safely.

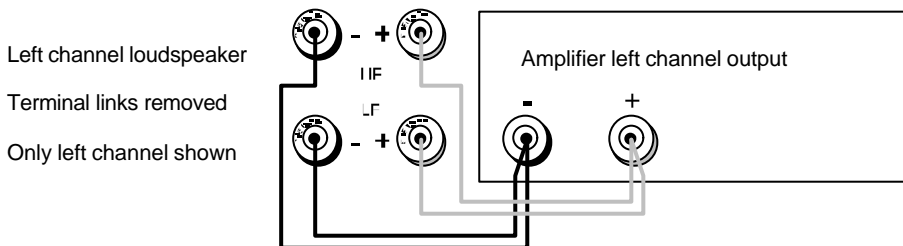


Figure 4 Loudspeaker Connections for Bi-wiring

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). Terminal links MUST be removed before bi-amping. Store the terminal links safely.

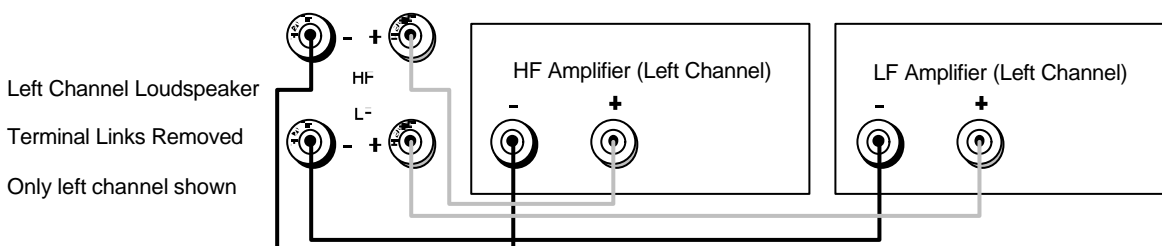


Figure 5 Loudspeaker Connections for Bi-amping

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Cable quality

Loudspeaker cables can have a noticeable 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 and amplifier compatibility

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 an 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 15 Watts per channel and a maximum of 250 Watts per channel available. If the sound is strained always turn the playing level down immediately. The Spendor S3/5^{se} is an easy to drive 8 ohm loudspeaker and it will deliver excellent results when combined with a wide range of solid state or tube amplifiers. 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, the appearance and performance may suffer. Spendor 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 for 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 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 S3/5^{se}

Description	2-way sealed enclosure for use on stand
Drive Units	19mm coated fabric dome tweeter with vented damped rear chamber 140mm homopolymer cone bass-mid driver
Frequency response	90Hz - 20kHz \pm 3dB on reference axis
Frequency range	-6dB at 70Hz
Dispersion	Within 3dB of response on reference axis Horizontal over 40° arc (\pm 20°). Vertical over 20° arc (\pm 10°)
Sensitivity	84dB SPL (1W, 1m)
Harmonic distortion	2nd & 3rd harmonics (re. 90 dB/1m) <1% 100Hz – 20kHz
Nominal impedance	8 ohms (minimum 6.0 ohms)
Crossover frequency	3.5 kHz
Connections	High current 2/3 way gold plated terminal posts Independent HF and LF terminals allow bi-wiring
Power handling	15 - 125W into 8 ohms on unclipped programme
Dimensions (W x H x D)	305 x 165 x 190mm (12.0 x 6.5 x 7.5in) including grille, excluding terminals
Net weight	4.7kg (10.3lb)
Cabinet finishes	Cherry, Rosewood or Alpi Birds-Eye Maple

Spendor Loudspeakers are designed and manufactured by Spendor Audio Systems Ltd.
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