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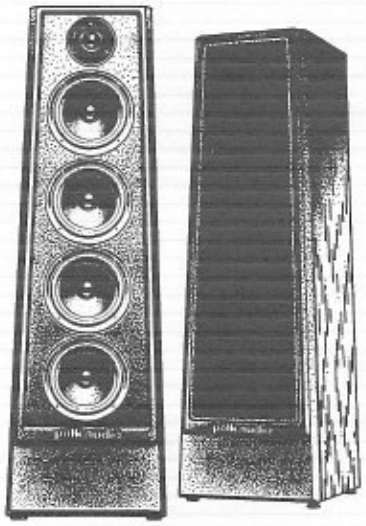
The Speaker Specialists ®

LS SERIES

SALES AND MERCHANDISING GUIDE



With the appearance of their homes being more important than ever, serious music listeners are looking for speakers which combine state-of-the-art audio performance with striking cosmetics and superb fit and finish. Using advanced laser interferometry research techniques, Polk Audio engineers have developed significant new technologies which provide a level of musical accuracy not previously available at reasonable prices.

Working in conjunction with skilled industrial designers, Polk Audio has integrated these technologies into cabinets of extraordinary grace and beauty. Form and function have come together in the new LS line of Polk loudspeakers. This Sales and Merchandising Guide is intended to help you recognize the right customer for the LS Series products, display them in a way which will enhance their sales and familiarize you with their features and benefits.

Customer Profile

Critical to the success of selling LS Series models is presenting them to consumers to whom they are well suited. Who are the right customers for LS models? In general the LS models appeal to "upscale" consumers, those who are looking for something "better" and whose tastes run toward the elegant rather than conservative.

Traditional speaker buyers; who would rather not trade off performance for small size.

Audiophiles - The LS models provide a level of musical accuracy which is unmatched by "tweek" and imported brands.

People with varied musical taste - More and more, people are listening to many types of music. Speakers which sound best with only on type of music are less appealing to most customers. The LS series models are highly accurate yet dynamic and fun to listen to, so they sound great on all types of music

People who like their music loud - The dynamic range and power handling of the LS models make them ideal for people who are looking for live performance playback levels

Style conscious consumers - Many people are looking for speakers which make a fashion "statement".

Customers with home theater systems - The superior vocal range, clarity and the floor shaking bass of the LS products make them ideal for use with video surround sound systems. For those people who wish to place their speakers near a direct view TV or monitor, the Polk LS Series speakers may be modified at low cost to be magnetically shielded (call the Polk factory at 1-800-927-POLK for details).

Merchandising

Consumers buy with their eyes as well as their ears. The correct visual presentation is just as important as the way they sound. Take a few extra minutes to set up the LS models to make them look and sound their best. Extra effort will pay off in extra sales.

Display more than one finish - The LS50 and LS70 are available in either high gloss Rosewood laminate or Oak laminate grain finish. The LS90 is available in either high gloss Rosewood laminate or Oak Laminate. Have at least one example of each finish on display so you can show your customers an alternative if they happen to like the speaker but not the finish. Display the LS models in your high-end soundroom. The LS products are premium quality speakers that sound as good or better than speakers costing far more. This can only be demonstrated if they are in the same room. Displaying them alongside your best components makes a statement about their quality.

Merchandising

Double demo the LS50 - Our test marketing of the LS cosmetics in gloss rosewood proved them to be "customer magnets." Put pair of gloss rosewood LS50's in a high traffic area of the store as well as in the high end soundroom. Their distinctive cosmetics will draw customers' attention and invite questions, both of which are preludes to sales.

Direct wire the LS models to high quality separates - Switch boxes greatly degrade the sound of speakers, making it harder to discern the quality differences between brands and models. By directly wiring the LS models to your best components with high quality cable you can best demonstrate their benefits to consumers.

Clean the high gloss Rosewood cabinets often - Fingerprints and smudges will detract from the striking appearance of the gloss rosewood finished LS products and make them less appealing to consumers. Wiping them with window cleaner or furniture polish and a soft cloth will keep them looking great. Never use abrasive cleaners. Vacuum the grilles periodically and replace any damaged grilles promptly (call 1-800-377-POLK for replacements). Floor models which become scratched, dented or otherwise shop worn should be sold off and replaced with fresh units.

Avoid placement near side walls or other large reflecting objects. the early reflection off such surfaces smears and degrades the imaging of all speakers. As superior imaging is one of the principal benefits of the LS Series models, such placement is to be especially avoided in their case.

Angle the LS models in toward the listener. This will help focus the image and sharpen the localization of the sound stage.

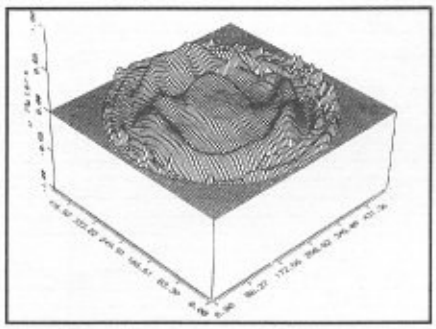
Features and Benefits

The Polk LS Series speakers are the result of years of research into the resonant behavior of materials and speaker cones. Working in conjunction with the Johns Hopkins University Center for Non-Destructive Evaluation, Polk Audio engineers developed an advanced analysis technique called "Full Field Laser Interferometry." This allowed us, for the first time, to view and analyze the microscopic vibrations on the surface of the entire speaker cone while it is in motion (illustration 1) . This breakthrough in speaker analysis technology enabled Polk engineers to devise ways to control and minimize the cone resonances which cause coloration and distortion in loudspeakers.We call these techniques "Dynamic Balance ", the successful integration of materials and mechanics in motion. Through the use of Dynamic Balance, the Polk LS Series achieve a level of sonic performance usually associated with larger, more costly designs.

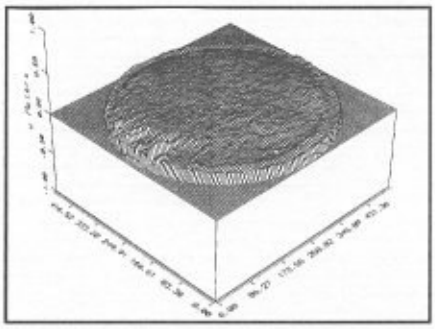
P-A-M Composite Cones - Through our laser interferometry research, we concluded that all single materials had drawbacks of one sort or another. Rather than settling for the compromises of a single material, Polk driver cones use a composite material, with stiff and soft components, to get the advantages of both. Polyolefin, used as the base material, is stiffened by the introduction of "Aramid Fibers" like those used in bulletproof vests plus mineral fillers. Free of resonant breakup modes, the LS drivers provide flat, low distortion performance for clear, un-colored sound reproduction.

Trilaminate Tweeter Domes - The SL6000 is the pinnacle of dome tweeter technology. It uses a trilaminate (three layer) dome of polyamide, aluminum and stainless steel to provide the listener with all the benefits of soft and hard dome designs. The highs are clean and extended without metallic harshness.

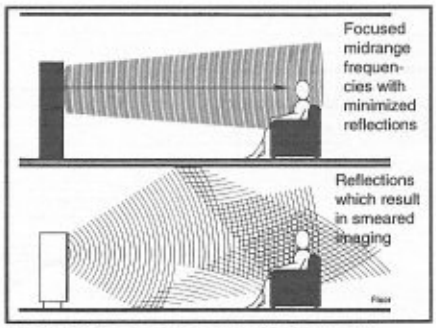
Features and Benefits



Laser Interferometry testing illustrates severe resonance break-up of single material cones



Polk Dynamic Balance Technology defeats cone resonance



Polk 's line source array technology

Resonance Damping Rubber Surround and Dustcap - Polk drivers use costly rubber surrounds and dustcaps which are tuned (like shock absorbers) to absorb cone resonances rather than allow them to reflect back into the cone again. This feature contributes to the flat frequency and phase response of the LS Series models. The rubber surrounds also resist Ultra Violet light and airborne pollutants which deteriorate cheap foam surrounds. A Polk driver will last far longer than competitive products and is therefore a better long-term value.

Non-Resonant Cabinet Construction - The baffle to which the drivers are attached is the cabinet surface which is most prone to unwanted resonances and vibrations. Most speakers use 5/8 or 3/4 inch particle board baffles. To avoid unwanted vibration, the LS baffles are constructed of 1 inch thick MDF (a costly non-resonant wood product). The sides and back of the LS cabinets are braced with stiffening ribs to prevent the cabinet from resonating and coloring the sound.

Diffraction Control Baffle - The extended surround of the driver and the contoured tweeter faceplate provide a smooth transition for the waveforms leaving the side of the moving cones. This minimizes the early reflections known as diffraction. The beveled baffle frame also provides a smooth transition from the baffle and guides the waveforms to the listening space, thereby minimizing the effects of room reflections. The Polk LS Series loudspeakers are less room sensitive than other speakers and provide the kind of three-dimensional imaging which was previously found only in costlier designs.

Non-Parallel Sides - For the same reasons that recording studios are built with no parallel walls, the sloping sides of the LS models prevent internal standing waves from developing within the cabinet. If allowed to persist, such standing waves cause deep bass loss, boominess or both. The LS line suffers from no such affliction. The bass is deep, tight and detailed. It sounds like live music, not canned.

Air Particle Decelerator - Tall, thin tower type speakers, while attractive, can suffer from "organ pipe" resonances. Air particles moving through the cabinet can cause an audible resonance much like the fog horn-like sound made when air is blown across the mouth of a bottle. This resonance can badly color the sound of human voices and other midrange instruments. A complex matrix of fiberglass filaments in the center of the cabinet slows the velocity of the air particles, breaking up the organ pipe resonance while still allowing the air to pass through. The reproduction of voices by the LS speakers is utterly lifelike, without a trace of heaviness.

Vertical Line Source Technology - By arranging the drivers in a line source array, midrange frequencies are focused in the vertical plane, thereby minimizing floor and ceiling reflections which smear the image and color the sound (see illustration at left).

Two - Way, Phase Coherent Crossovers -The human ear is ultra sensitive to the phase and frequency response errors in the range of 200 - 1,000 Hz (the midrange). Crossovers cause such errors and are therefore best placed outside that frequency range. Because of the wide response range of the Dynamic Balance drivers, Polk engineers were able to cross over to the tweeter well above the midrange. Free of the midrange phase response errors of typical loudspeakers, the Polk LS Series models provide vocal purity, clarity, and imaging not before available at their low prices.

Features and Benefits

Rigid and Damped Driver Baskets - The computer assisted design of the Polk driver basket provides the strength, rigidity and non-resonant performance of cast baskets at the price of stamped baskets. Twelve metal ribs, molded into the circumference of the driver allow a "friction fit" of the driver into the baffle, insuring that all driver energy is used to reproduce sound, not shake the basket or baffle. The extension of the surround to the edge of the basket also helps damp it to eliminate Basket "ringing" which would color the sound. The Polk S Series speakers let you hear the music on the CD, not the distortion of resonating speaker parts.

Sales Tips

Here are some techniques to use when presenting LS Series products

1. ***Sell from the top down*** - Don't be afraid to show LS speakers to people who ask for lower priced products. By starting at the top you will expose more people to the performance and cosmetic excellence of the LS models and increase the odds of selling them. Even if you have to step down, pointing out the similarities between LS and S models will help you sell the S model in the customers price range.

2. ***Demonstrate the long term reliability benefits of the Polk rubber surround.*** Get from your service department a several year old driver with a brittle or deteriorating foam surround and an old Polk driver with a rubber surround. After pointing out the feature and describing the benefits of rubber, attempt to pick up the foam driver by the surround. It will tear. Pick up the Polk driver by its rubber surround for comparison.

3. ***Demonstrate the benefits of composite cone technology.*** Take a empty soft drink can, holding it by the pull tab, strike the side of the can with a pen and note how it rings. Explain to the customer that this is similar to the "ringing" which happens in undamped speaker cones which distorts the sound. Take a sheet of soft plastic or rubber, strike it with a pen and note that it doesn't ring like the stiff material but that its lack of stiffness makes it a poor speaker material too. Wrap the can with the soft material and tap it again, noting that you now have a structure which is stiff yet does nor ring. This is like the Polk composite structures which are made of both stiff and damped materials to get the benefits of both.

4. ***Demonstrate the benefits of the damped basket of the Polk driver.*** Hold a competitive driver by the magnet and strike the edge of the basket with a screwdriver. Note how it rings. Do the same thing to a Polk Dynamic Balance driver. Note the vast reduction in coloration causing ringing.

5. ***Prepare the customer*** - Tell the customer which benefits he/she will hear before you play the music. Prepare the customer to hear the incredible front to back depth and lateral imaging by pointing out where on the soundstage various sounds will appear.

6. ***Demonstrate the sound!*** The customer won't know how great they sound until you turn them on. In order to take control of the sale and make the best first impression, always start with a CD of your choosing. Use well recorded demo material with which you are very familiar and which demonstrates the qualities of the products. Vocal recordings are especially recommended.

7. ***Play several types of music*** - This will show the consumer the sonic versatility of the Polks.

8. ***Ask for the sale.*** When, through words or body language, a consumer shows enthusiasm for the product, go for the close.

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