

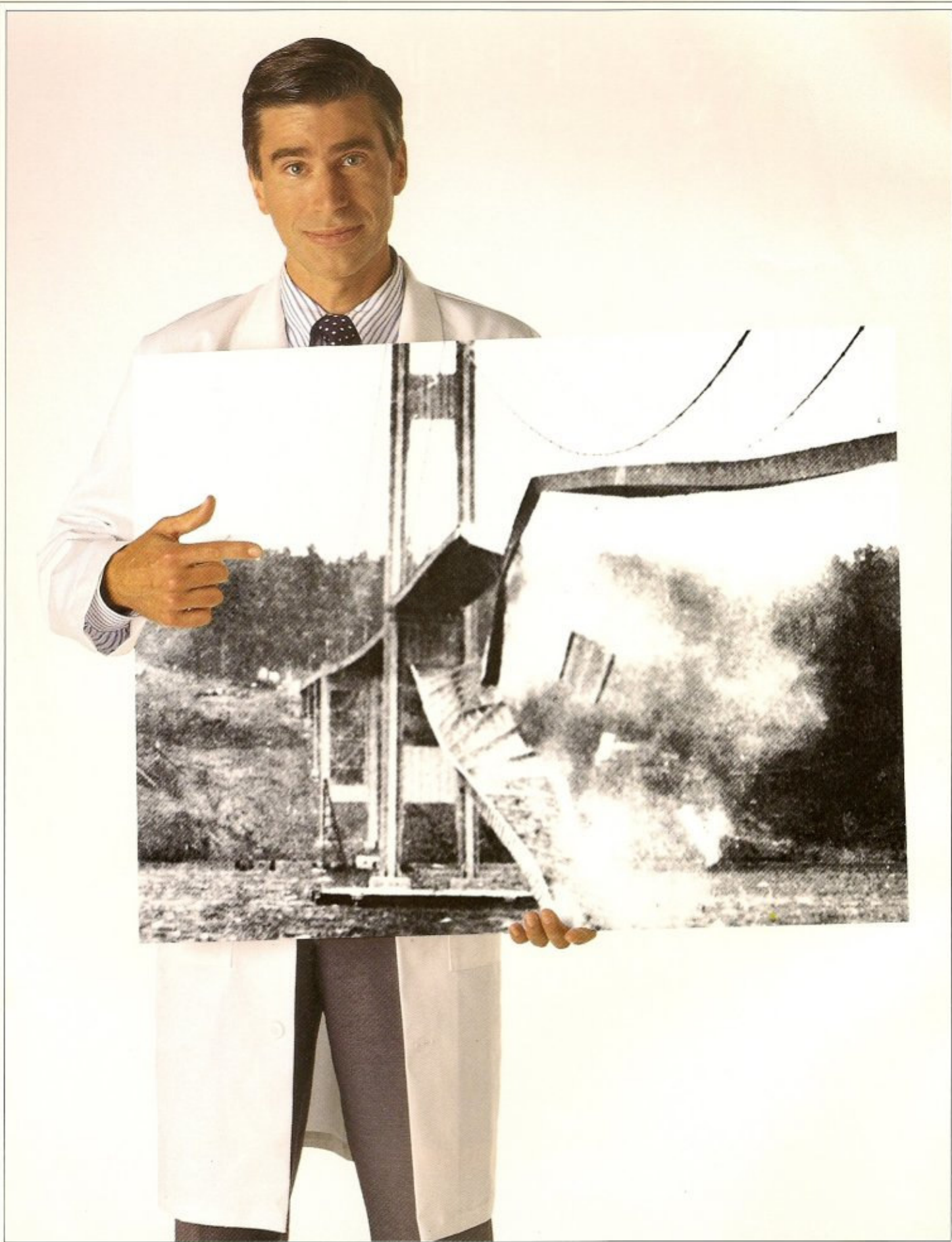
POLK AUDIO: 20 YEARS OF AWARD-WINNING SPEAKERS

THE STORY OF DYNAMIC BALANCE™

The New S and LS Loudspeakers



THE STORY OF DYNAMIC BALANCE



In 1940, the newly completed Tacoma Narrows Bridge shook itself to death.

As a forty-two mile per hour wind blew across the bridge, an uncontrollable resonance began to shake the steel, macadam and concrete structure.

The resulting catastrophe forever changed the way that bridges and other structures are designed and engineered.

CONSIDERING THAT UNWANTED RESONANCE LED TO THE SPECTACULAR DESTRUCTION OF THE TACOMA NARROWS BRIDGE, MATTHEW POLK BEGAN TO INVESTIGATE THE DAMAGING EFFECTS OF RESONANCE ON THE PARTS OF A LOUDSPEAKER.

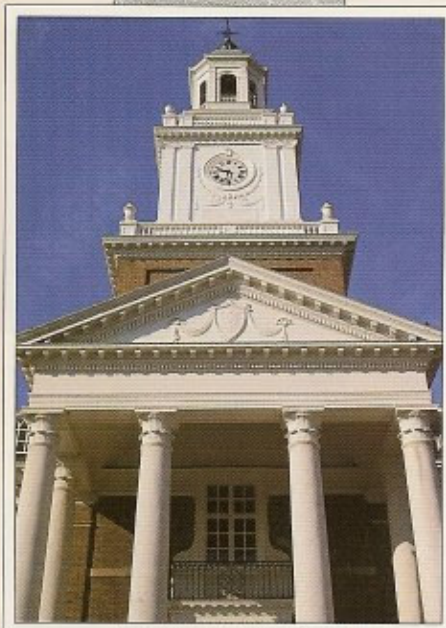
a new standard in the enjoyment of sound reproduction. Julian Hirsch, the industry's best known critical reviewer, wrote:

"Like its smaller relative the S4, the LS70 dramatically demonstrates the success of Polk's engineering effort to create a line of speakers embodying the latest technology in materials and acoustics." Stereo Review, December 1992

A BREAKTHROUGH IN LOUDSPEAKER TECHNOLOGY BASED ON 20 YEARS OF RESEARCH

The notion of materials producing unwelcome resonance when set in motion has since been explored in everything from skyscrapers to the space shuttle. At Polk Audio, our 20-year commitment to the accurate reproduction of sound led us to the investigation of this phenomenon, which is a major source of sonic coloration and distortion in loudspeakers. Through a cooperative research program with Johns Hopkins University, we discovered that if microscopic resonances on the surface of a loudspeaker could be eliminated or significantly reduced, greater sonic clarity would result.

The new S and LS Series loudspeakers incorporate the results of this research. Not only are these products the best that we have ever produced, but we feel they also represent



JOHNS HOPKINS UNIVERSITY, ONE OF THE WORLD'S LEADING RESEARCH INSTITUTIONS, JOINED POLK AUDIO IN A RESEARCH PROGRAM RESULTING IN NEW MEASUREMENTS THAT MADE BETTER DESIGNS ACHIEVABLE.

The recent trend in home entertainment, which combines video with high quality audio, has dramatically increased the number of people interested in component loudspeakers. This makes the introduction of the S & LS Series products important and well-timed. These products contain breakthrough advances in loudspeaker mechanics and materials technology which produce such obvious clarity that even novice listeners will confess that they easily "hear the difference!"

And, while you certainly don't need to be an expert to enjoy these loudspeakers, serious audiophiles

will immediately appreciate the new standards of stable three-dimensional imaging, rich detail, and balanced, seamless response offered by these innovative designs.

Many technical improvements have been included in the S & LS models to dramatically reduce unwanted resonance and improve performance. We call the group of technologies used to accomplish this *Dynamic Balance™*. The result is lower distortion and purer sound through:

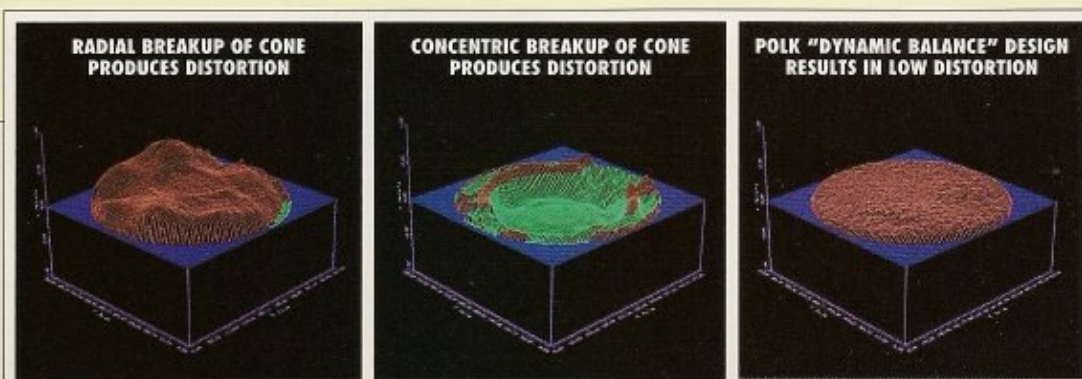
- **Balanced operation of the moving parts while in motion**
- **Rigid stabilization of the non-moving parts**

LASER INTERFEROMETRY TESTS PRODUCED HOLOGRAPHIC "PHOTOS" OF DRIVERS IN MOTION. THE "BAD" DRIVERS ARE EXPERIENCING MODAL BREAKUP THAT RESULTS IN DISTORTION-PRODUCING RESONANCES. A "PERFECT" DRIVER WOULD LOOK LIKE A CAKE (FLAT ON TOP).

University's team of researchers, we developed a new Full-Field Quasi-Heterodyne Laser Interferometry test. In the process audio history was made.

For the first time, we could take full-field holographic "snapshots" of microscopic forms of the unwanted resonances generated in the moving parts of the speaker. We could actually see and study all aspects of the speaker's motional behavior, no matter how small. In a sense we had created our own version of that famous "bridge" photo — on a much smaller scale, but no less dramatic. The holographic "photos" below display the behavior of

WHAT IS DYNAMIC BALANCE™?



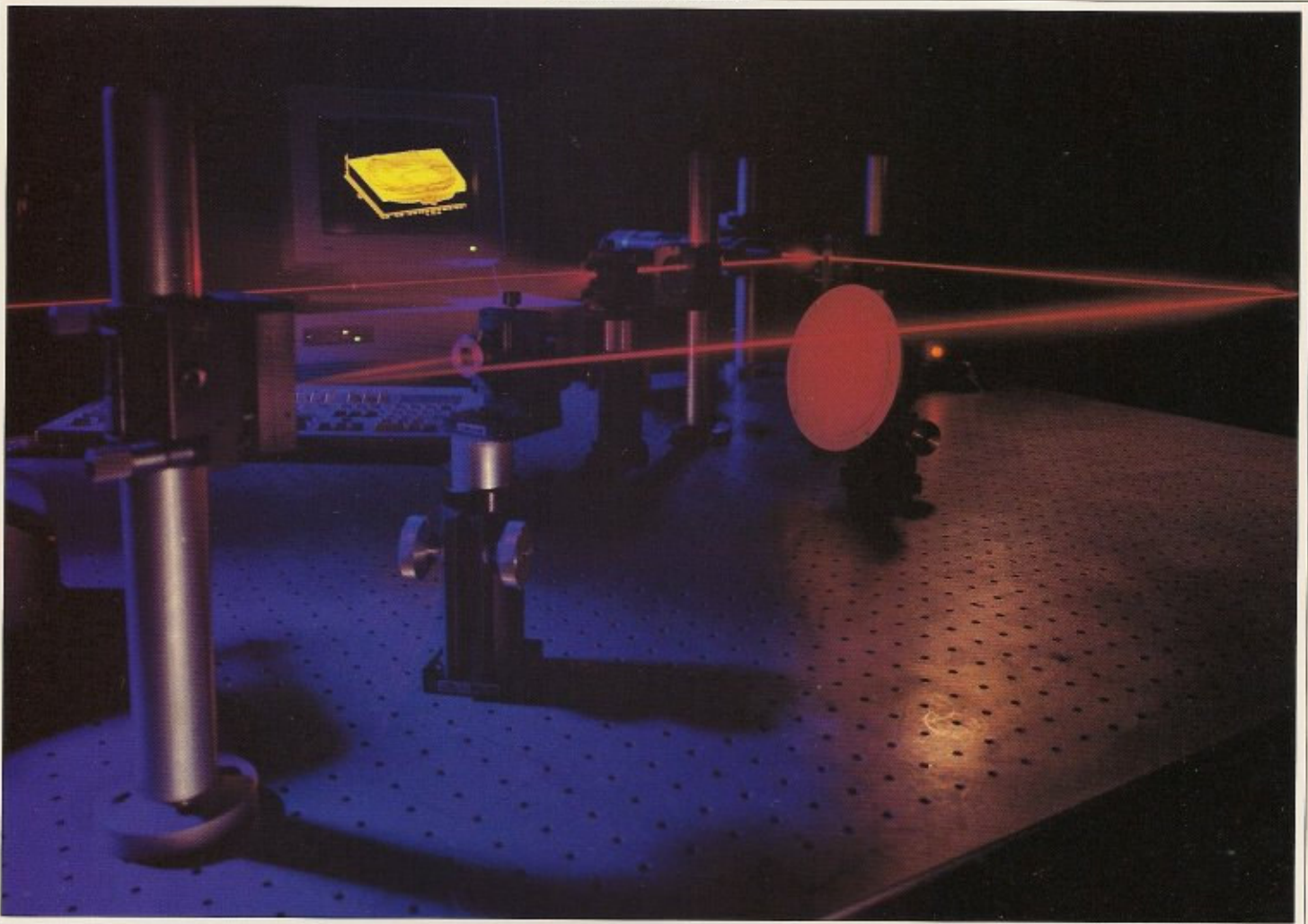
Literally every part of these loudspeakers has been refined or re-engineered to achieve *Dynamic Balance*. For this reason, the words "DYNAMIC BALANCE" appear under the grille on the tweeter faceplate of the "S" and "LS" models. Our pursuit of *Dynamic Balance* began when we suspected that significantly more could be done with our designs if new technologies and new materials could be comprehensively evaluated on a microscopic level. That drove us to establish a cooperative research program with the Johns Hopkins University, one of America's leading scientific institutions.

THE BREAKTHROUGH: A NEW WAY TO SEE SOUND

At the Johns Hopkins University's Center for Non-Destructive Evaluation, we built a new way to "look" at speakers. Working with the

OUR TRADEMARK "DYNAMIC BALANCE" IS THE NAME WE'VE GIVEN OUR BREAKTHROUGH TECHNOLOGY THAT DRAMATICALLY REDUCES DISTORTION AND PROVIDES PURER SOUND.





three different drivers while in motion. The uneven nature of the surface is caused by unwanted resonances.

By being able to observe microscopic resonances, Polk engineers could efficiently evaluate their choices of materials and test the effect of design changes to both the moving and non-moving parts of the loudspeaker. We now saw a path to significantly smooth the response and extend the frequency range of our drivers, allowing us to build loudspeakers that produce a more accurate and exciting sound. The last "photo" illustrates the behavior of a driver with our *Dynamic Balance*™ technologies.

LASER
INTERFEROMETRY
TESTS AT
JOHN HOPKINS
UNIVERSITY'S
CENTER
FOR NON-
DESTRUCTIVE
TESTING
PROVIDED
DRAMATIC
HOLOGRAPHIC
DATA THAT
POINTED POLK
TO NEW
LOUDSPEAKER
DESIGNS.

NEW MATERIALS TECHNOLOGY

The focus of our research was to determine which material would exhibit a minimum of unwelcome resonance when used as a speaker cone. Our laser research proved that no single material, but rather a combination or "composite" of materials, exhibited the non-resonant characteristics we sought. Stiff materials, such as metals, provide great structural strength but tend to resonate or ring. Soft materials, like polypropylene, do not ring, but tend to lose their shape and distort during the rapid piston-like movements required of a speaker cone or dome. By combining stiff, strong materials with soft, well-damped ones, we created a composite cone superior to any single material cone.

To understand this principle, think of an aluminum bar and a plastic hose. The bar is strong, but it rings like a bell when struck, creating unwanted resonances. The plastic hose doesn't ring when struck, but is too easily bent. Slip the bar into the hose and you now have a "composite." This composite is stiff and strong but does not ring when struck.

POLK CONES, MADE OF COMBINATIONS OF DISSIMILAR MATERIALS, ARE MORE STABLE AND LESS PRONE TO UNWANTED RESONANCES, PROVIDING DISTORTION-FREE PERFORMANCE.

you determine the origin or location of a sound and are most sensitive to harmonic relationships. The importance of this range is evidenced by your sensitivity to the human voice, which falls within this critical midrange; the ear and mind often determine the accuracy of sound reproduction by the sound of the voice. Polk engineers have developed a unique system-design approach that optimizes performance in this domain.

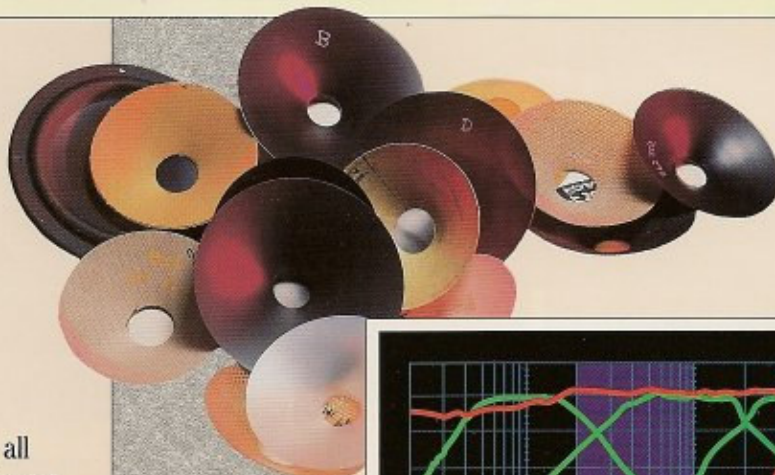
ENGINEERING A NEW IMAGE... BASIC RESEARCH, MATERIALS TECHNOLOGY AND IMAGINATION

Exhaustive laser interferometry testing led us to develop a space age composite of polyolefin, graphite, mineral fibers and aramid fibers. This extraordinary new material provides an exceptional balance of stiffness and low mass, neutralizing unwanted resonances. So, unlike many other loudspeaker designs which choose between hard or soft cone materials, our composites display all of the positive benefits of each selected material, without any of the associated negative characteristics.

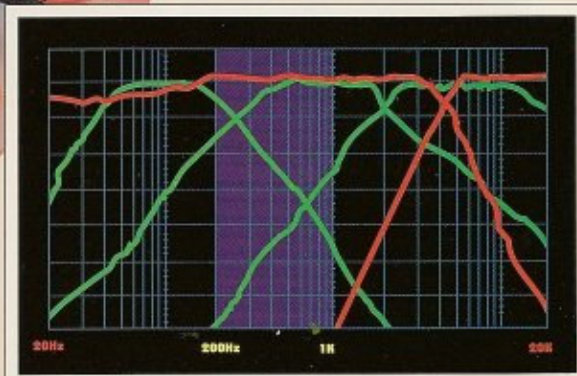
Working with this superior material as a base, our engineers refined or re-engineered every moving and non-moving part of the loudspeaker. The illustrations on pages 6 and 7 detail the major design elements employed exclusively by Polk Audio in their drivers and tweeters to achieve *Dynamic Balance™* in these designs.

POLK'S SUPERIOR SYSTEM DESIGN

The frequency range of human hearing most sensitive to (and hence most critical of) sound is between 200 and 1,000 cycles. It is within this "critical midrange" of frequencies that



POLK 2-WAY DESIGNS (RED LINES) MINIMIZE DISTORTION AND PHASE SHIFT BY PUTTING THE CROSSOVER OUTSIDE THE MOST SENSITIVE RANGE OF HEARING (PURPLE AREA). THE 3-WAY DESIGN (GREEN) HAS AT LEAST ONE CROSSOVER POINT IN THE CRITICAL MIDRANGE WHICH PRODUCES DISTORTION AND COLORATION.



Crossover networks are the electronic components inside the speaker system which divide incoming sound information and direct these divided frequencies to their appropriate drivers (i.e. treble to the tweeter, bass to the woofer). Although necessary, these crossover networks introduce phase shifts and frequency errors. These errors occur as the divided frequencies move through the crossover to their respective

drivers. When the characteristics of these drivers make it necessary to place a crossover within the critical midrange, the human ear is able to detect the resulting phase shifts and frequency errors. By using the small but wide range drive units made possible only by our *Dynamic Balance*™ technology, we have been able to place the crossover significantly outside the critical midrange. The ideal frequency and phase response is maintained in the region where the ear is most likely to hear errors. Voices, stringed instruments and other midrange instruments are reproduced with stunning realism and clarity by Polk *Dynamic Balance* loudspeakers.

Due to their great surface area and mass, large woofers are hard to control and prone to resonate. Polk *Dynamic Balance* speakers use small sophisticated bass/midrange drivers either in multiple arrays or coupled to bass radiators to produce extraordinary amounts of low bass with the kind of clarity and musicality large driver systems cannot match.

DELIBERATE
CURVES AND
BEVELS PROVIDE
CONTROLLED
DIFFRACTION
RESULTING
IN GREATER
PLACEMENT
FLEXIBILITY;
IN FACT,
POLK SPEAKERS
MAINTAIN
THEIR STABLE
IMAGE EVEN
WHEN PLACED
NEXT TO
OBJECTS.

The critics hail the soundstage which is created by the geometry employed on our tweeter faceplates, baffle frames and grille assemblies. The deliberate contours and reverse bevels used on the face of the loudspeaker form an effective diffraction control system which enhances the localization and stability of the stereo image. This diffraction control system adds a startling realism to the performance of these Polk designs.

The stereo effect is completely stable even when the listener is off to one side, a feature which will make every seat in the house front row center. Due to the special nature of the diffraction control system, the performance of these loudspeakers is significantly less affected by room placement than the competition's. So close your eyes, listen, and find out why Rich Warren, a syndicated electronic equipment columnist writing for the *Chicago Tribune*, said:

“Your favorite vocalists give an intimate concert that sounds almost like they’re in your listening room.”



ENGINEERING A NEW IMAGE

“Its spatial imaging, both lateral and vertical, was outstanding.”

Julian Hirsch, *Stereo Review*, December 1992

“It creates remarkable stereo image. That is the illusion of natural placement of voices and instruments. On some recordings the speakers produce a near holographic effect, with sound seeming to come from far outside of the speaker enclosures.”

Rich Warren, *The Chicago Tribune*, November 1992

The result of Polk's twenty years of research into loudspeaker design has led us to *Dynamic Balance* technology and to the creation of the S and LS Series loudspeakers. Each is a distinct design offering unmatched performance and value.

Choose any pair of these loudspeakers and experience the thrill of a new standard of sound reproduction. Combine two or more pairs to enjoy the benefit of their matched timbre, which is essential in assembling a five-channel home theater system.

THE STORY OF DYNAMIC BALANCE

BUTYL RUBBER SURROUND, designed with a unique thick to thin parabolic cross-section, is critically matched to the cone for precise absorption of reflections. Butyl rubber does not deteriorate like foam surrounds, ensuring years of unmatched performance and value.

**POLK'S
DYNAMIC BALANCE
DRIVER**

VIBRATION CONTROL CAP, made of butyl rubber, is integrated to the cone surface to absorb any stray reflections.

COMPOSITE CONE, made of dissimilar materials, minimizes modal resonance and smoothes frequency response to beyond 3000 Hz. The aramid fibers added to the LS cone increases its stiffness without adding mass.

FLAT SPIDER provides precise centering of the cone/coil assembly throughout the range of cone movement. The result is consistent performance at any listening level.

FRICTION FIT BASKET has a unique geometry that makes it extremely rigid. The 12 point friction fit ensures solid mechanical contact with the baffle so no energy is lost through basket vibration. What results is clean, open sound.

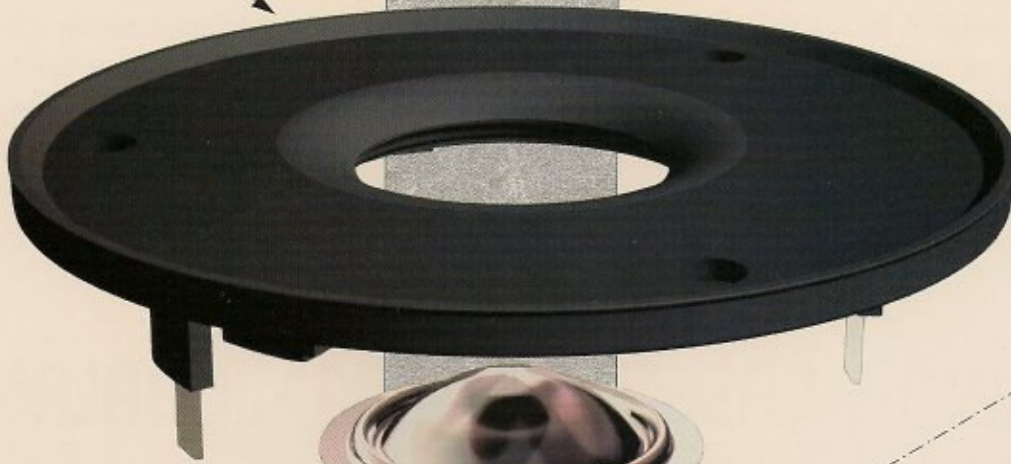
VENTED VOICE COIL FORMER draws heat away from the voice coil resulting in improved power handling and reliability.

POLE PIECE AND MOTOR STRUCTURE, computer designed to focus the magnetic field in the coil gap, maintains control of the cone/coil assembly at even the highest power levels.

EXTRA LARGE MAGNET powers the motor efficiently and reliably at both low wattage/low listening levels and high wattage/high listening levels.

**POLK'S
DYNAMIC BALANCE
TWEETER**

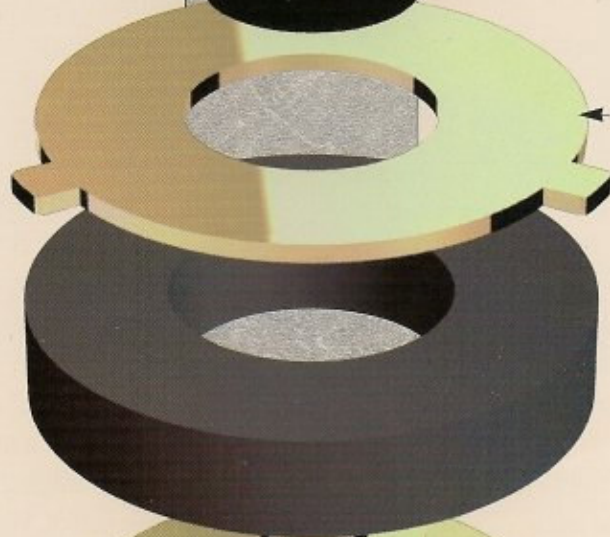
CONTROLLED DISPERSION FACEPLATE
is precisely contoured to reduce reflections and direct high-frequency energy in a pattern that ensures three-dimensional imaging and musical clarity throughout the listening room.



FELT DAMPING PLUG
eliminates distortion and phase anomalies by absorbing radiation from the back of the dome that would otherwise reflect off the metalwork and back through the dome.



TRILAMINATE DOME,
aluminum and stainless steel vapor deposited onto a polyamide base, was developed to provide the stiffness of metal with the low mass and damping characteristics of soft materials. The listener enjoys clear, uncolored high-frequency performance.



CRITICALLY TUNED MOTOR STRUCTURE,
features an unusually large cavity in the pole piece which allows Polk to extend the low-frequency limit, thus assuring a smooth, seamless transition between the tweeter and drivers.



CONTOURED VOICE COIL ASSEMBLY
has ten times as much dome contact as typical voice coils, resulting in better control of the moving dome for increased performance and efficiency.

Consisting of one floor-standing and three bookshelf models, the S series offers uncompromised performance with unmatched value. The way tweeters and drivers are matched, the way the crossovers are designed, the way the cabinet mechanics are "voiced" to the components, the way the custom-made screws hold it in place, serve to make the S series a great choice for any

POLK'S NEW
LOUDSPEAKERS
WERE DESIGNED
FROM THE
GROUND UP,
INCLUDING
CUSTOM SCREWS
TO HOLD IT
ALL IN PLACE.

The S8 incorporates the SL5000 *Dynamic Balance*™ 1" dome tweeter and the new MW8000 *Dynamic Balance*™ 7½" driver to produce the power and authority of an 8" driver without the typical midrange distortion. A 7½" bass radiator is incorporated to complete this design.* The larger driver, bass radiator, and S Series tweeter produce a level of performance you might expect only from

THE NEW S SERIES... SOUNDLY BASED ON DYNAMIC BALANCE™

indoor home loudspeaker application.

The S4 employs the new SL5000 *Dynamic Balance*™ 1" dome tweeter and the new MW7000 *Dynamic Balance*™ 6½" drive unit in a vented cabinet. The smallest bookshelf model in the S series, the S4 offers big performance. Julian Hirsch, writing for *Stereo Review*, said: **"The S4's measured performance was exceptional, especially for its size and price. In particular, its frequency response over most of the audio range was among the flattest we have ever measured from a speaker."**

The S6 design is based on the same active components as the S4, with the addition of a 6½" bass radiator for increased bass performance.* Writing for the *Chicago Tribune*, electronic columnist Rich Warren observed: **"At normal listening levels the S6 becomes addictive."**



larger floor-standing loudspeakers, yet due to the efficiency of this design it can still be tucked into a bookshelf.

The S10, the top of the S series, is a floor-standing design which uses the new SL5000 *Dynamic Balance*™ 1" dome tweeter and the new MW8000 *Dynamic Balance*™ 7½" driver, matched with a Polk 10" bass radiator in a floor-standing configuration that offers deep bass, greater power handling and wider dynamic range.*

Regardless of which S series model you choose, you'll hear a new level of clarity, transparency and sound staging that no equivalently-priced speaker can match. Vocal reproduction is clear and open. Bass is powerful and accurate, preserving the timbre of each sound, while the high frequencies provide superior instrumental definition and clarity that is so often lost in competing designs.

**The upper three models of the S Series feature critically tuned bass radiators to extend bass response below 60 cycles without requiring larger enclosures or larger-diameter drive units that would have more resonant distortion.*



The S4

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
1 - 6.5" (165mm) driver
(ported)

SIZE

15.5"H × 9.5"W × 7.25"D
(39.4cm × 24.1cm × 18.4cm)

OVERALL FREQUENCY RESPONSE

32Hz - 25kHz

-3dB LIMITS

50Hz - 23kHz

RECOMMENDED AMPLIFICATION

20 - 100 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

91dB

SHIPPING WEIGHT

27 lbs. / pair (12.2 kg)

The S6

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
1 - 6.5" (165mm) driver
1 - 6.5" (165mm) sub bass radiator

SIZE

21.25"H × 10.25"W × 7.75"D
(54cm × 25.9cm × 19.7cm)

OVERALL FREQUENCY RESPONSE

30Hz - 25kHz

-3dB LIMITS

45Hz - 23kHz

RECOMMENDED AMPLIFICATION

20 - 125 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

91dB

SHIPPING WEIGHT

35 lbs. / pair (15.8 kg)

THE S SERIES IS AN IDEAL COMBINATION OF PERFORMANCE AND VALUE. PICTURED ABOVE FROM THE LEFT IS THE S6, THE S4, THE S8, THE S10 AND IN THE FOREGROUND IS THE S8 WITH GRILLE IN PLACE.

The S8

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
1 - 7.5" (190mm) driver -
1 - 7.5" (190mm) sub bass radiator

SIZE

25"H × 11.5"W × 8.75"D
(63.5cm × 29.2cm × 22.1cm)

OVERALL FREQUENCY RESPONSE

28Hz - 25kHz

-3dB LIMITS

42Hz - 23kHz

RECOMMENDED AMPLIFICATION

20 - 150 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

90dB

SHIPPING WEIGHT

28 lbs. each (12.7 kg)

The S10

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
1 - 7.5" (190mm) driver
1 - 10" (254mm) sub bass radiator

SIZE

29"H × 12.5"W × 10.5"D
(73.7cm × 31.8cm × 26.4cm)

OVERALL FREQUENCY RESPONSE

25Hz - 25kHz

-3dB LIMITS

39Hz - 23kHz

RECOMMENDED AMPLIFICATION

20 - 200 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

91dB

SHIPPING WEIGHT

33 lbs. each (15 kg)

The new LS Series sets unique standards both sonically and visually. These speakers are intended to satisfy the most discriminating buyers with prices that represent new statements of value in top-of-the-line loudspeaker design. And their performance is indeed extraordinary, even compared with competitors' models selling at much higher prices. Julian Hirsch, in *Stereo Review*:

THE
IMPLEMENTATION
OF DYNAMIC
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LED POLK TO
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HUNDREDS OF
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MAXIMIZE
PERFORMANCE
AND VALUE.

The result is a driver of more musical accuracy. LS models also feature a SL6000 *Dynamic Balance*™ 1" trilaminate dome tweeter. Its unique composite dome is produced by a patented vapor deposition process that adds a thin layer of aluminum and stainless steel to the polyamide base. Like the most sophisticated metal dome, it provides greater frequency extension and detail,

THE NEW LS SERIES... THE TRIUMPH OF DYNAMIC BALANCE™

"In its price range, where a number of good speakers are available, the Polk LS70 is an exceptional value. You would have to pay a lot more to gain (maybe) a small improvement in overall quality."



THE LS SERIES ADVANTAGE

Form follows function in the shape of the LS cabinet. The delicately slanted sides add elegance and style to the appearance while aiding in the break-up of internal standing waves. The cabinet shape also enhances the diffraction control system by narrowing the baffle at the tweeter, creating even greater stability of the stereo image. The structural design of the LS series is reinforced with thick 1" baffles of non-resonant MDF and computer-designed internal bracing systems. These cabinets are rock solid when producing even the deepest bass at high power levels.

The driver cones in the LS series are a polyolefin mineral-based composite like the S series models, but with space-age aramid fibers added for a near perfect stiffness-to-weight ratio.

but with the smooth non-resonant character of soft domes. Finally, as a crowning touch, each LS model is equipped with gold five-way binding posts as connectors, providing long lasting non-oxidizing electrical contact with your amplifier and assuring top performance — now and in the future.

The LS50 combines two new MW7100 *Dynamic Balance*™ 6½" drivers and the SL6000 *Dynamic Balance*™ 1" trilaminate dome tweeter in a vented design. This remarkably well-designed and executed loudspeaker is the most compact of the LS Series and a very big performer in every sense of the word. Its extended range and large-scale stereo presentation belie its size.

The LS70 incorporates two MW8100 *Dynamic Balance*™ 7½" drivers in a progressive line source.* When blended with an SL6000 *Dynamic Balance*™ 1" trilaminate dome tweeter, the LS70 accurately captures the vivid and emotional character of the original musical experience. For still higher performance, the LS70, with its two sets of gold plated five-way binding posts, is able to



Balance™ 1" trilaminate dome tweeter.* Two sets of gold plated five-way binding posts are included, so bi-amping and bi-wiring options are available for even higher performance levels. The LS90s display an amazing combination of power, control, subtlety and agility. The LS90 can persuade you that you are hearing a live performance.

Polk Audio's LS Series represents the best of 20 years of groundbreaking research and design. Choose any LS model and enjoy the excitement that these products have generated among the audio critics and

be bi-wired and bi-amped. *Stereo Review's* Julian Hirsch said it best: "...how did it sound? In a word, superb."

The LS90 is truly Polk Audio's "state of the art" offering to date. It features four MW7100 *Dynamic Balance™* 6½" drivers in a progressive line source combined with the SL6000 *Dynamic*

**The two larger models of the LS Series incorporate progressive line source designs, which improve bass extension, increase power handling and eliminate adverse effects from floor and ceiling reflections.*

The LS50

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
2 - 6.5" (165mm) driver

SIZE

32.5"H × 10.562"W × 11.562"D
(82.5cm × 26.8cm × 29.4cm)

OVERALL FREQUENCY RESPONSE

30Hz - 26kHz

-3dB LIMITS

45Hz - 25kHz

RECOMMENDED AMPLIFICATION

20 - 250 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

89.5dB

SHIPPING WEIGHT

48 lbs. each (21.8 kg)

IN THE FOREGROUND ON THE LEFT IS THE LS50 WITH ITS GRILLE ON. THE LS50 WITHOUT GRILLE IS NEXT, FOLLOWED BY THE LS70 AND THE LS90.

other LS owners. You will get the power, the accuracy and the impact of live music from loudspeakers of elegance and grace — a combination of value and performance made famous by Polk Audio.

The LS70

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
2 - 7.5" (191mm) driver

SIZE

37"H × 12.25"W × 14.562"D
(94cm × 31cm × 37cm)

OVERALL FREQUENCY RESPONSE

25Hz - 26kHz

-3dB LIMITS

37Hz - 25kHz

RECOMMENDED AMPLIFICATION

30 - 250 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

90dB

SHIPPING WEIGHT

62 lbs. each (28.1 kg)

The LS90

DRIVER COMPLEMENT

1 - 1" (25mm) dome tweeter
4 - 6.5" (165mm) driver

SIZE

40"H × 12.25"W × 14.562"D
(94cm × 31cm × 37cm)

OVERALL FREQUENCY RESPONSE

20Hz - 26kHz

-3dB LIMITS

35Hz - 25kHz

RECOMMENDED AMPLIFICATION

30 - 250 watts / channel

IMPEDANCE

Compatible with 8 ohm outputs

EFFICIENCY

90dB

SHIPPING WEIGHT

73 lbs. each (33.1 kg)

Movie sound tracks, with all their dramatic quality and special effects, now have the potential to provide an unparalleled entertainment experience in your home. The impact of watching television in "surround sound," with its three-dimensional effects being reproduced by a high quality five-channel audio system, is so breathtaking that it is quickly revolutionizing the

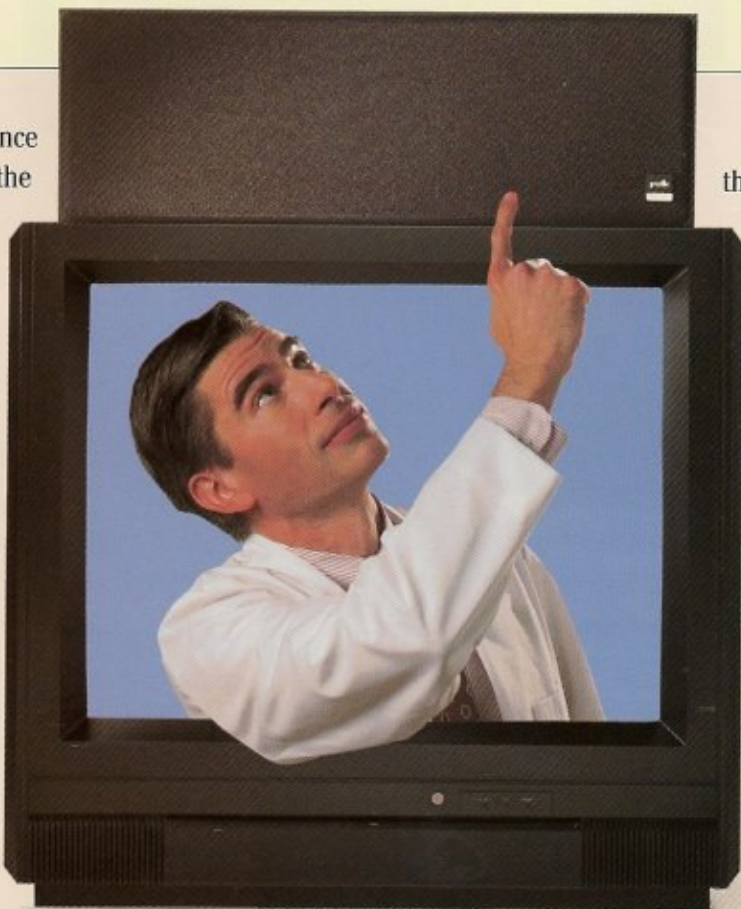
THE CENTER CHANNEL SPEAKER IS A MUST FOR REALISTIC HOME THEATER. THE UNIQUE SHAPE OF POLK'S HIGH PERFORMANCE CS CENTER CHANNEL SPEAKERS OFFERS THE MOST PLACEMENT FLEXIBILITY.

envelop you in dramatic front-to-rear effects. These are positioned behind or to the side of the listening/viewing area. The loudspeakers used in these applications should have three distinct qualities: (1) high performance with good dynamic range, (2) matched timbre (or tonal balance) with the other loudspeakers in the system, and (3) good placement flexibility.

POLK LOUDSPEAKERS DESIGNED TO COMPLETE YOUR HOME THEATER SYSTEM

American family room. And since all of the "effects" present in the soundtrack for the movie theater are passed on to the video tapes for home use, there is an almost unlimited amount of exciting software from which to choose. Not since black and white television became color has there been such an exciting and readily available advance in home entertainment.

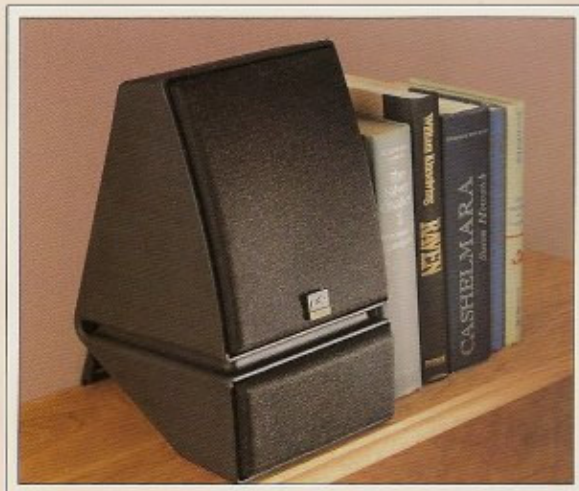
A surround sound system is controlled by specially designed electronics, and adds three additional loudspeakers to the two normally present in a stereo system. One speaker is a dedicated center channel speaker for all the "on screen" action. This is placed adjacent to your television screen. The other two are rear channel speakers which



Polk Audio has led in the design of high quality loudspeakers for home theater applications. The CS Series center channel speakers, the M Series multi-application monitors and our line of architectural built-ins provide superb performance, matched timbre to other Polk loudspeakers and all the placement options needed to achieve a smart installation in any home.

THE CS SERIES CENTER CHANNEL LOUDSPEAKERS

Polk's CS center channel speakers provide full-range performance and rich detail for all the on-screen action and dialog. Their low-profile, uniquely-angled cabinets offer unmatched placement flexibility. They are easily positioned on top, underneath or to the side of your television; and, since they are



POLK'S M SERIES IS ONE OF THE BEST SELLING SPEAKERS FOR SURROUND APPLICATIONS BECAUSE IT OFFERS THE ULTIMATE IN PERFORMANCE AND VERSATILITY.

magnetically shielded, they will not interfere with the quality of your television picture. Two CS speakers can be used to increase dynamic range in systems where extremely loud volumes are desirable.

THE M SERIES MULTI-APPLICATION MONITORS

Polk engineers have managed to squeeze exceptional performance into the compact multi-application enclosures of the M Series. Produced with state-of-the-art manufacturing techniques, the computer-designed composite housings are durable and beautiful. Polk drivers and tweeters provide high performance appropriate for any application. Whether employed as a video surround speaker, as a primary speaker or as a remote speaker in a secondary location, the M Series is right at home. These uniquely-shaped cabinets include integral mounting systems which allow just the right orientation, whether on a wall, in a corner, or free-standing. They are available in white or black.



THE AB SERIES "ARCHITECTURAL BUILT-IN" LOUDSPEAKERS

The Polk AB Series of loudspeakers offers a wide variety of sizes and shapes designed to be built into your walls or ceilings and, if desired, painted to match or complement your decor. The ABs are

the perfect solution for those who would rather have their speakers heard than seen. Ideal as surround speakers or as secondary speakers for remote locations, the AB Series offers the same high performance available in other Polk designs. Do it yourselfers will appreciate Polk's ingeniously easy mounting system.

WHEN YOU WANT A HIGH PERFORMANCE SPEAKER THAT YOU CAN'T SEE, CHOOSE ONE OF OUR FULL LINE OF AB SERIES LOUDSPEAKERS.

S Series Cabinet Finishes



Oak Grain
S4, S6, S8, S10



Black Grain
S4, S6, S8, S10



Oak Grain
LS50, LS70



Black Grain
LS50, LS70



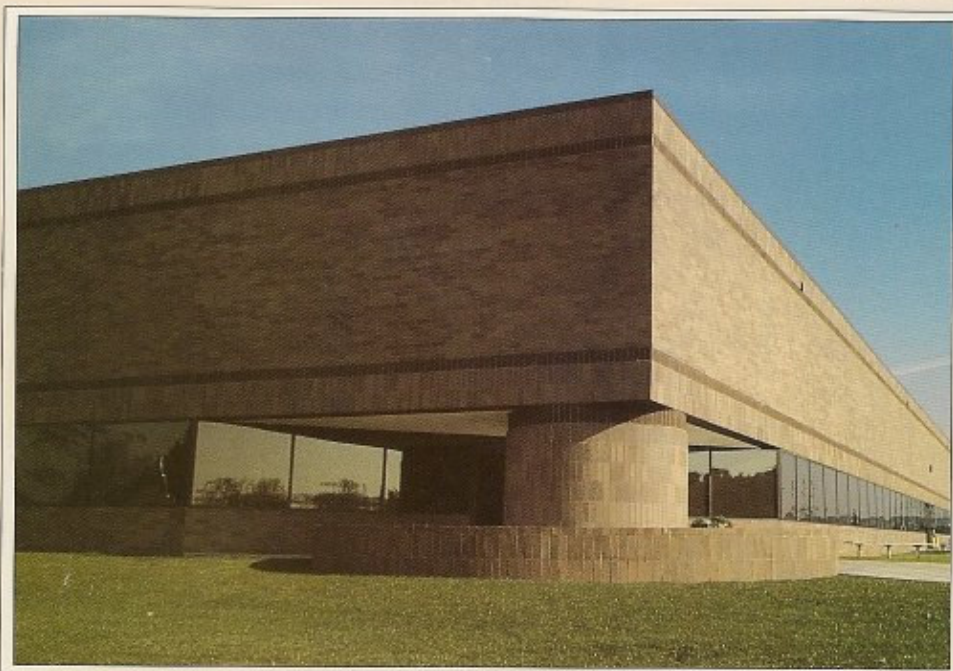
Rosewood
Laminate
LS50, LS70, LS90



Real Wood
Oak
LS90



Real Wood
Black
LS90



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