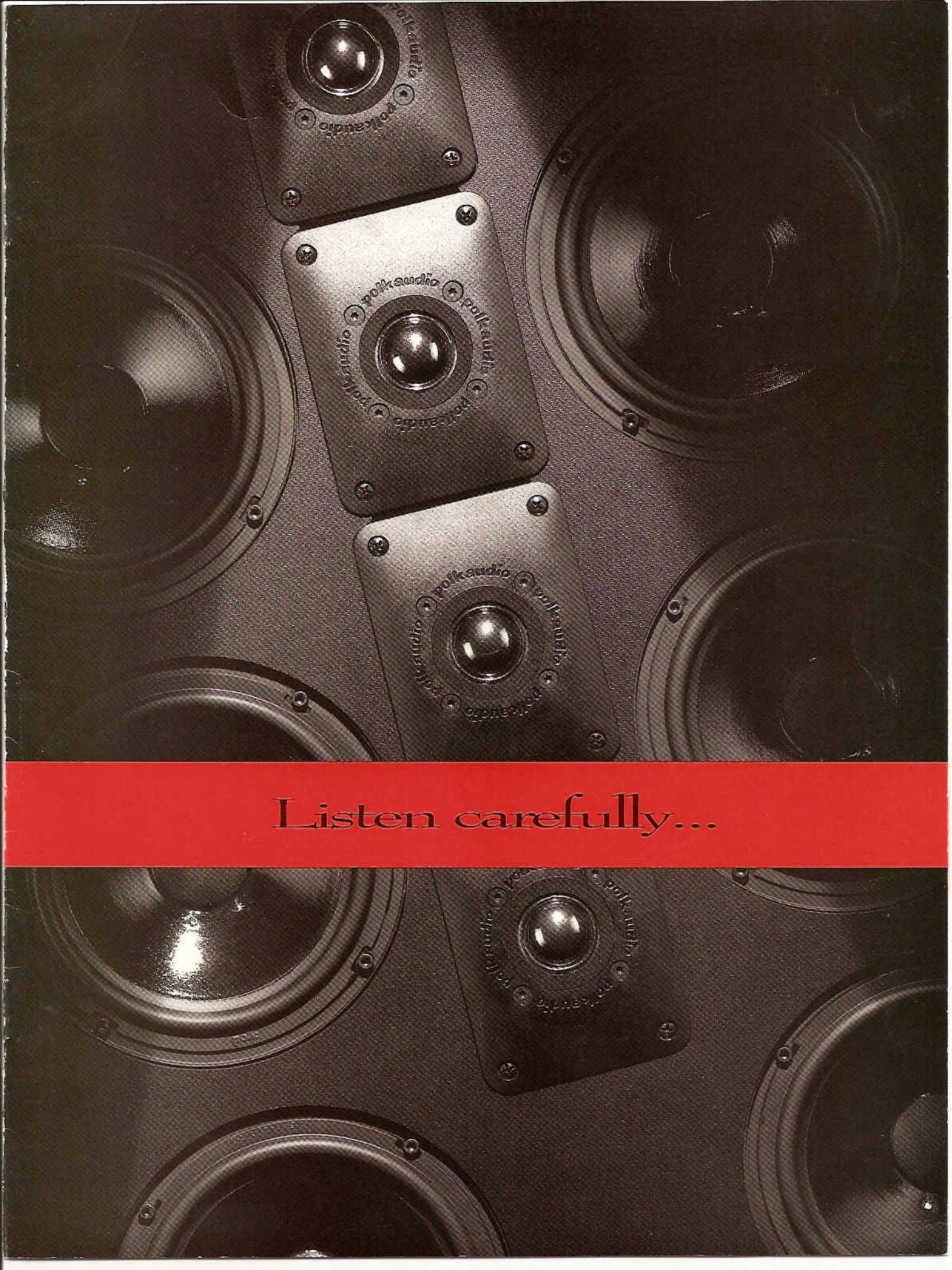

polkaudio
Listen carefully...

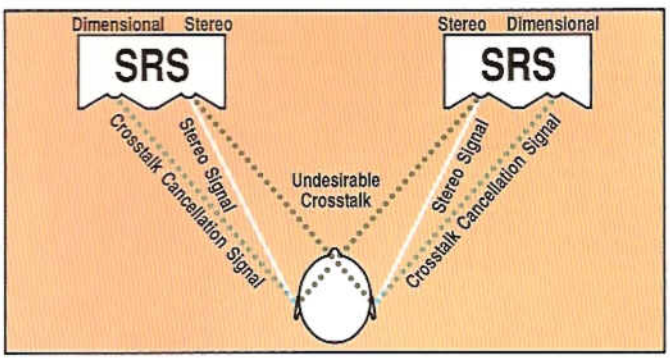
Signature Reference Series: The Very Best of the Best

The legendary sound of Polk loudspeakers has for years been exemplified by its flagship Signature Reference Series (SRS), the speakers that carry Matthew Polk's signature. Indeed, the SRS loudspeakers have been largely responsible for Polk's reputation among audiophiles as a true innovator in sound reproduction.

Polk now introduces its SRS 1.2TL, 2.3TL and 3.1TL, each featuring the latest breakthroughs in loudspeaker technology. Following is a technical brief of why the SRS speakers sound so remarkably like a live performance. After reading this information, it is hoped that you listen carefully to the SRS loudspeakers at your Polk Audio dealer. While you will probably hear things you have never heard from a stereo system, you can be assured that everything you hear is true.

stereo reproduction is that there are two separate channels of information, each intended for one ear only (i.e. "true stereo").

To more accurately reproduce sound as it was originally created, it is vital that the integrity of this separation of information be maintained. With conventional speaker systems, each ear hears both speakers, and the separation is minimized. The resulting soundstage is reduced to the small space between the speakers. A large symphony orchestra is reduced to only a few feet wide and a few inches deep.



Each Polk SDA incorporates a special extra set of drivers which radiate a difference signal that cancels the undesirable signal going from the wrong speaker to the wrong ear (interaural crosstalk distortion). The result is True Stereo reproduction.

...everything you hear is true.

It All Begins With the Sonic Excitement of Polk's Stereo Dimension Array (SDA)

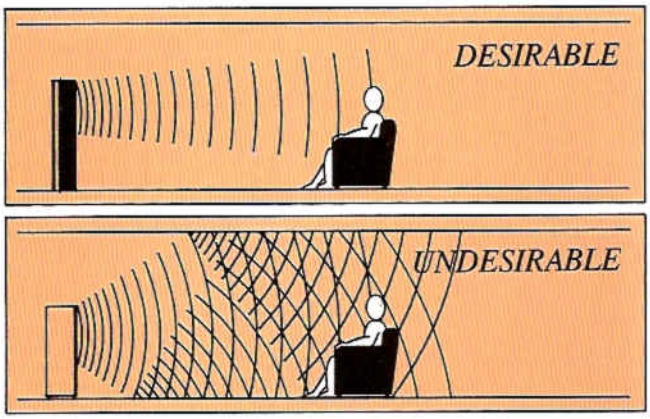
Years ago Polk Audio recognized the importance of more absolute separation of information reaching each ear. Of course, the fundamental concept of

Polk's "True Stereo" SDA technology delivers left signal information to your left ear and right signal information to your right ear. Each ear only hears its proper signal, thereby maintaining full stereo separation. The resulting soundstage is dramatic. Closing your eyes, you can imagine the entire orchestra in front of you, pinpointing the location of instruments with incredible accuracy and depth.

Experts have called the Polk SRS Series featuring the revolutionary Stereo Dimensional Array (SDA) technology "mindboggling...astounding...flabbergasting...a new dimension in sound." Others, after hearing the remarkable wide sound stage created by this technology, have discovered new life in their favorite musical selections. It is "True Stereo" by Polk.

The Crystal Clear Imaging of Polk's Line Source Array

Even the best of conventional loudspeakers suffer from blurred imaging and tonal coloration caused by unwanted floor and ceiling reflections of midrange frequencies. Reflections reaching the listener within



By precisely positioning high frequency and midbass drivers according to their dispersion characteristics and by controlling the radiating area of the system as a function of acoustic wavelength, Polk's Line Source Array produces stable, crystal clear imaging.

5 milliseconds of the original signal will "smear" the image. Polk, however, minimizes the damaging effects of undesired reflections with its Line Source Array technology.

By controlling the vertical dispersion of these frequencies, a much higher level of imaging purity is achieved. The sound becomes more "open" by reducing the effects of undesired room interactions. Consequently, the listener is given a wider range of optimum listening positions in the room.

Additionally, the SRS 1.2TL and 2.3 TL utilize Polk's Progressive Point Source technology to maintain a Constant Vertical Directivity of mid and high frequencies, which prevents undesirable beaming. As frequencies increase, the tweeter array adjusts its radiation area and eventually becomes an ideal point source at the very highest of frequencies, eliminating high frequency interactions and reflections between multiple drivers.

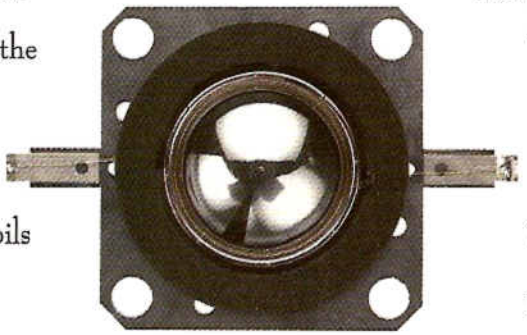
The Full Impact of Polk's Mid and LowFrequency Performance

Even the smallest SRS, the 3.1TL, delivers the kind of bass that will give you goosebumps. Each SRS model features an array of Polk's exclusive Trilaminate Polymer 6 1/2" midbass drivers that exemplify today's state-of-the-art loudspeaker technology. By combining three complementary materials, each with a specific beneficial property, a performance level is attained that is beyond the reach of conventional drivers that use simple paper or vacuum-formed plastic cones.

Fast, light Polk Trilaminate 6 1/2" Drivers, using the best of materials technology, provide superior transient response and detail.

One of the laminates is very light, yet structurally strong. Another is extremely stiff with an unusually high speed of sonic wave transmission, and the other has a uniquely effective damping property that removes sonic coloration.

Contributing to the deep, tight bass response of these drivers are the costly butyl rubber surrounds that offer more accurate cone movement. Additionally, these surrounds will not deteriorate over time as do the foam surrounds found on many drivers. And, high temperature aluminum voice coils are used to assure long term reliability even with extended playing at maximum output.



Ultimately, by vapor depositing stainless steel and aluminum to a polyamide surface, the benefits of both soft and hard domes were achieved.

These drivers are light and fast, providing superior transient response and detail. No other speaker system available today can boast the uncompromising technical superiority of these Polk designed and engineered drivers.

The 3.1TL features five active Trilaminate 6 1/2" drivers that are acoustically coupled to a 12" critically tuned bass radiator. In total, the low frequency driver system has a surface area of 178 square inches, more than enough to create an emotional, if not physical, reaction to the thunderous, yet clean, tight bass.

The SRS 2.3TL and 1.2TL, each with a bass radiating area exceeding that of a 40" woofer, have the ability to produce powerful, deep bass with virtually no distortion. Indeed their low frequency reproduction may be unsurpassed in the history of loudspeaker design. While bass distortion is typically a function of the loudspeaker in any music system, the SRS 2.3TL and 1.2TL actually yield less distortion at 25 Hz than many audiophile quality tube amplifiers.

To enhance the full impact and dimension of Polk's low frequency performance, both the 2.3 TL and 1.2TL may be physically coupled to the listening room wall or floor with the appropriate hardware included. Indeed, listening to either of these loudspeakers with Polk's "Bass Brace" or "Spiked Feet" in place, will prove to be a new, exhilarating experience.

An Engineering Breakthrough: The Remarkable SL 3000 Tweeter

Matthew Polk and his team of engineers set out to develop the world's finest 1-inch dome tweeter to be used in his flagship SRS speaker systems. The objectives of this design project were to:

1) Set a new standard for flat frequency response
2) Extend frequency response, free of peaks, to beyond 26 kHz
3) Increase power handling capacity
4) Maintain high efficiency.

Polk engineers, in conjunction with the Johns Hopkins University Center for Non-Destructive Testing, utilized Laser Interferometry to test a vast number of tweeter designs and materials in their search for high frequency perfection. This advanced application of laser technology allowed Polk to study digital holograms of tweeters in operation.

Exhaustive tests were conducted in developing a revolutionary dome which would produce perfect motion without the sonic degradation caused by standing waves. Ultimately, it was found that by vapor depositing stainless steel and aluminum on a polyamide surface, the new SL 3000 dome was stiff enough to push standing wave resonance to beyond audible range (20 kHz), yet light enough for high efficiency and superior transient response.

It was also discovered that standing waves created in conventional tweeters were the result of a "hinging" effect at the tiny surface where the voice coil meets the dome. The situation is analogous to your wrist cracking a whip. Your wrist, acting as a hinge, causes a standing wave to travel down the length of the whip.

By using a rare ULV Magnetic Fluid to cool a tweeter's voice coil, both performance and reliability are vastly increased.

Polk's solution to this problem was to develop a voice coil former pre-formed to follow the exact contour of the dome. This Polk high efficiency drive system provides a surface contact area 10 times that of a typical voice coil assembly. This rigid connection between the dome and voice coil former eliminates the "whip" action and resulting standing waves.

Polk also discovered that by using a rare Ultra Low Viscosity (ULV) Magnetic Fluid, nearly as thin as water, to cool the SL 3000's voice coil, the tweeter's power handling capacity would be vastly improved without compromising efficiency or detail.

After developing this innovative new driver, further research and careful listening tests concluded that Polk's original goals were achieved. In addition, it was discovered that there was an audible improvement at frequencies below those produced by the SL 3000. It was concluded that unwanted high frequency peaks actually mask and deteriorate midrange detail. Eliminating these peaks audibly enhanced midrange reproduction.

The pure, high end performance of the SL 3000 thereby makes a significant contribution to the overall sound of the SRS loudspeakers. Each of the new SRS loudspeakers, the SRS 1.2TL, the SRS 2.3TL and the SRS 3.1TL benefit from this technology. "TL," in fact, stands for Tri-Laminate.

Amplifier Compatibility and Bi-Amp Capability

Each of the SRS Loudspeakers is quite efficient and presents an "easy load" for almost all available receivers and amplifiers. It is recommended that a high quality amplifier or receiver of at least 50 watts per channel be used for the best performance. If you are using separate mono amplifiers without a common ground, Polk's AI-1 interface is available for proper connection.

For even greater dynamic range and lower distortion, the SRS loudspeakers may be connected for Bi-Amplification using the two sets of inputs provided on each loudspeaker. No electronic crossover is necessary. By permitting different amplifiers to reproduce the high and low frequencies separately, the SRS loudspeakers achieve their greatest sonic potential.

Yes, Everything You Hear Is True

Listen to what the critics say: "Mindboggling... astounding...flabbergasting." Listen to what other Polk owners say: "I've never heard anything like it... it's a whole new world."

But no number of written accolades will prepare you for the experience of listening to the SRS loudspeakers at your authorized Polk Audio dealer. Because everything you hear is true.

You will hear the next generation of loudspeakers.

The Polk SL 3000 Trilaminate Dome Tweeter sets new standards for bandwidth, flatness of response, phase linearity and power handling.

polkaudio
The Speaker Specialist®

SRS Series

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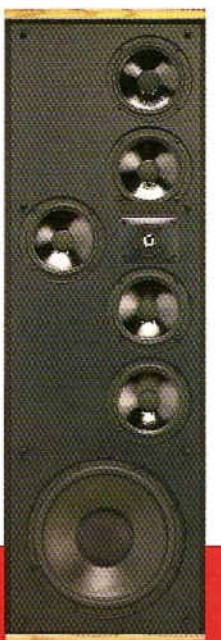
The Speaker Specialist®
5601 Metro Drive
Baltimore, MD 21215 USA
(301) 358-3600

SRS 1.2TL

Driver Complement
Four 1" (25 mm) SL 3000 trilaminate dome tweeters
Eight 6½" (166 mm) drivers
One 15" (381 mm) sub bass radiator
Size (Inches)
63½ H × 21¾ W × 13⅛ D
(159 cm × 55 cm × 33 cm)
Overall Frequency Response
10 Hz-26 kHz
−3dB Limits
27 Hz-25 kHz
Recommended Amplification
50-1000 watts/channel
Impedance
Compatible with 8 ohm outputs
Efficiency
91 dB
Shipping Weight
185 lbs./cabinet (82 kg.)

SRS 2.3TL

Driver Complement
Three 1" (25 mm) SL 3000 trilaminate dome tweeters
Six 6½" (166 mm) drivers
One 15" (381 mm) sub bass radiator
Size (Inches)
55 H × 20⅝ W × 13⅛ D
(138 cm H × 52 cm W × 33 cm D)
Overall Frequency Response
12 Hz-26 kHz
−3dB Limits
30 Hz-25 kHz
Recommended Amplification
50-750 watts/channel
Impedance
Compatible with 8 ohm outputs
Efficiency
90 dB
Shipping Weight
141 lbs./cabinet (70 kg.)



SRS 3.1TL

Driver Complement
One 1" (25 mm) SL 3000 trilaminate dome tweeter
Five 6½" (166 mm) drivers
One 12" (305 mm) sub bass radiator
Size (Inches)
48 H × 15¾ W × 13⅜ D
(122 cm H × 40 cm W × 34 cm D)
Overall Frequency Response
15 Hz-26 kHz
−3dB Limits
32 Hz-25 kHz
Recommended Amplification
50-500 watts/channel
Impedance
Compatible with 8 ohm outputs
Efficiency
90 dB
Shipping Weight
101 lbs./cabinet (46 kg.)

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