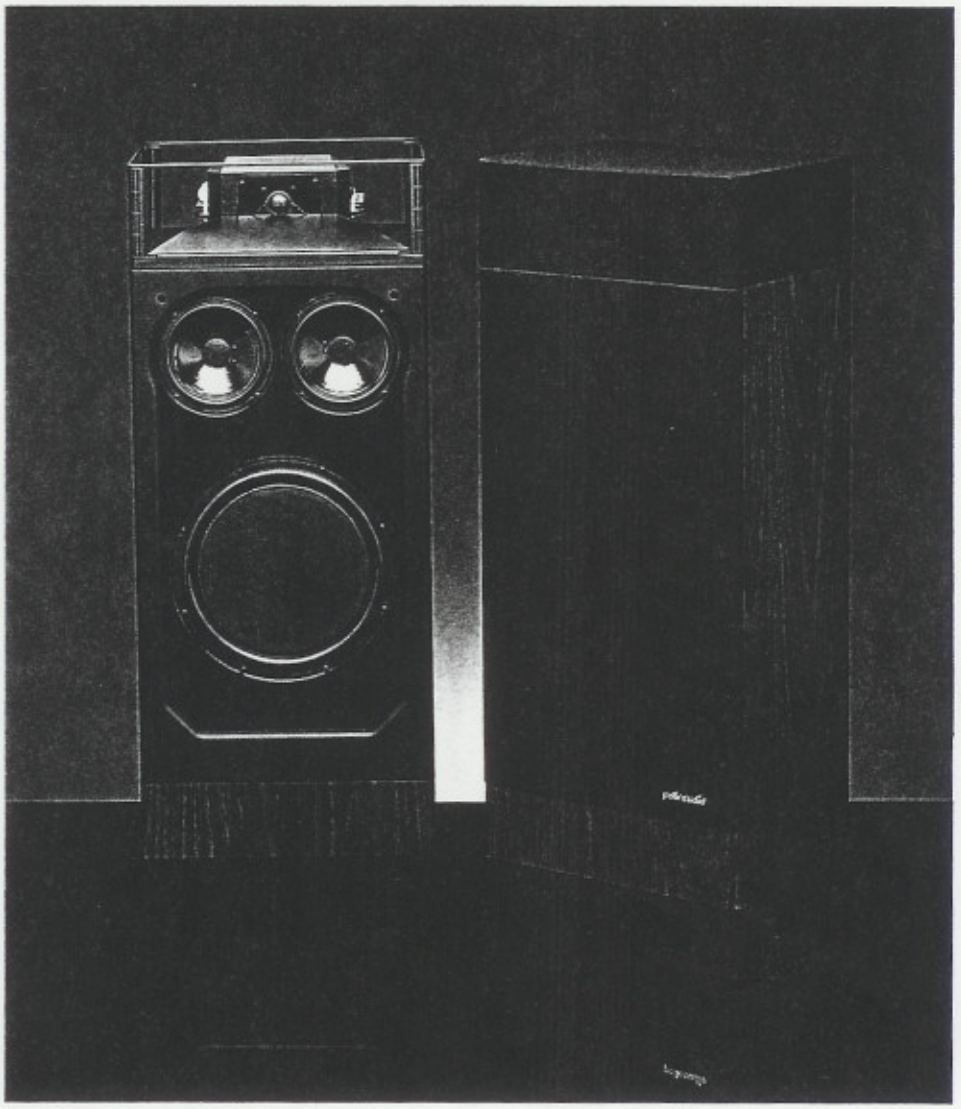
The Real-Time Array Reference Monitor System

R.T.A. 12B

The finest loudspeaker that Polk Audio manufactures and one of the best in the world.

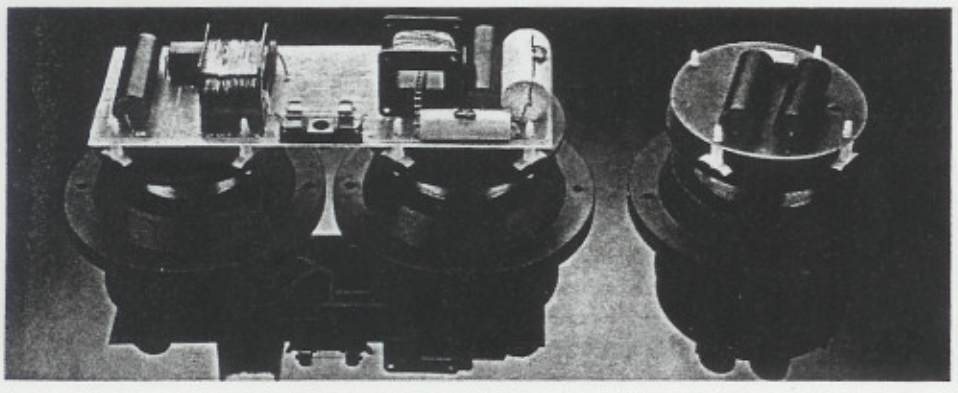
The Polk Audio R.T.A. 12B is the ultimate expression of the Polk design concept. It is a mirror imaged full size floorstanding system. When you listen to the R.T.A. 12B you will be transported even closer to the live musical performance. The 12B was designed with the aid of Polk Audio's newly developed digital sampling-fast Fourier transform computer testing procedure. It utilized a pair of Polk MW 6600 tri-laminate polymer drivers crossed over to a Polk SL 1000 moving coil high frequency radiator and fluid coupled to a Polk SW 1200 planar subwoofer. An incredibly complex dual isophase crossover network is used. The cabinet is extremely rigid, well braced, and set up to allow phase aligned open air mounting of the high frequency radiator. In addition, a sophisticated anti-diffraction ramp is employed to eliminate any spurious high frequency reflections off the top of the cabinet. The sonic result is cleaner, clearer, more lifelike sound with greater power handling and dynamic range.

The Polk R.T.A. 12B was honored by its selection for the International Consumer Electronics Show – Design and Engineering Exhibition as one of the most innovative products of the year.



Real-Time Dual Isophase Crossover Network

Optimized in the time domain for greater transparency and realism.



The complex filter network used in the R.T.A. 12B is one of the finest used in any loudspeaker system, regardless of cost. It is actually two separate crossover networks used together to precisely blend the two 6600x drivers with the SL 1000 high frequency radiator. In addition to impedance balancing and frequency contouring the crossover rolls off the high end of one of the 6600x drivers before the other to achieve flatter frequency response and mirror imaging. It utilizes a unique fourth order (24db/octave) Gaussian magnitude

configuration which is optimized in the time domain. A computer was used to generate the basic component values but they have been listener optimized for the best sound in your room's "real world" environment. Signals are processed in real-time nearly perfectly with regard to transient information and phase coherency. Like the crossovers used in the other Polk Monitors, the R.T.A. 12B network makes extensive use of large low resistance copper coils, "buss-bar" printed circuit construction, high quality capacitors and precision resistors. Silver mica bypass capacitors are used in addition to low dissipation factor mylar capacitors for even better high frequency response. This ensures the highest sound quality as well as the long term integrity of the R.T.A. 12B's exemplary performance.

Unique Cabinet Design

Phase coherent open air driver mounting for superior sonic imaging.

The unusual cabinet configuration allows for the phase coherent open air mounting of the high frequency radiator. The design team found that by open air mounting the SL 1000, they could achieve better dispersion, a more open sound and further improvement in the width, depth, height and accuracy of the sonic image. The elaborate "top hat" design and built-in anti-diffraction ramp properly integrates the SL 1000 into the system while minimizing diffraction and reflection problems.

Nonresonant cabinet construction enhances performance.

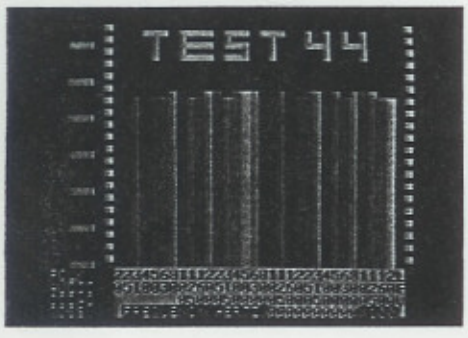
All Polk speaker cabinets are built out of special nonresonant high density particle board. For the R.T.A. 12B we have gone one step further. The cabinet is constructed utilizing a special "laminate shear damping" technique. This combined with the extensive internal bracing, ensures that the cabinet is acoustically inert and unable to produce any sound of its own. You hear only the clear, pure sound of the high quality Polk drivers.

Square Wave Response of R.T.A. 12B Proves Superb Phase Coherency

CIDAC – Polk Audio's Quality Control Computer System

Your assurance of 100% total performance and satisfaction.

CIDAC Graphic Display Screen



Polk Audio's highly advanced CIDAC Quality Control Computer System makes certain that the performance of each and every Polk loudspeaker matches that of the laboratory prototype. At Polk Audio we insist on 100% total quality control. Our engineers know that designing superior loudspeaker systems isn't good enough. The quality of the design is meaningless unless there is a foolproof quality control procedure to assure you that your loudspeakers will deliver their full performance potential. To achieve 100% total quality control our engineers designed one of the most advanced systems of its kind in the world, the CIDAC Q.C.C.S.

Unlike most loudspeaker manufacturers Polk Audio completely tests each and every loudspeaker it produces. In fact, Polk tests every subassembly component first before it is assembled into the final product. Over 40 different performance parameters are then tested on every loudspeaker produced. The CIDAC Computer System is used for many of the most critical tests to absolutely ensure that there is no margin for human error. You are assured of total satisfaction with your new Polk Audio loudspeaker system for many years to come.

A Polk Audio Quality Control Engineer Thoroughly Tests Every Polk Loudspeaker

Specifications

	Mini Monitor II	Monitor 5	Monitor 7	Monitor 10	Monitor 12B
Driver Complement	One 1 inch moving coil high frequency radiator (fuse protected) One 4 1/2 inch tri-laminate polymer bass-midrange driver One 4 1/2 inch low-resonance sub-bass radiator	One 1 inch moving coil high frequency radiator (fuse protected) One 6 1/2 inch tri-laminate polymer bass-midrange driver One 8 inch fluid-coupled sub-woofer	One 1 inch moving coil high frequency radiator (fuse protected) One 6 1/2 inch tri-laminate polymer bass-midrange driver One 10 inch fluid-coupled sub-woofer	One 1 inch moving coil high frequency radiator (fuse protected) Two 6 1/2 inch tri-laminate polymer bass-midrange drivers One 10 inch fluid-coupled sub-woofer	One 1 inch moving coil high frequency radiator (fuse protected) Two 6 1/2 inch tri-laminate polymer bass-midrange drivers (6600x) One 12 inch planar fluid-coupled sub-woofer
Size (inches)	13 7/8H x 6W x 4 3/4D	21 1/2H x 10 1/2W x 8 1/2D	24H x 14W x 9 1/4D	28H x 16W x 11 1/2D	39H x 16W x 11 7/8D
Shipping Weight	23 pounds per pair	29 pounds	36 pounds	50 pounds	75 pounds
Frequency Response	34 Hz-25,000 Hz 60 Hz-20,500 Hz +/−2dB	31 Hz-25,000 Hz 40 Hz-21,000 Hz +/−3dB	26 Hz-25,000 Hz 33 Hz-20,500 Hz +/−2dB	22 Hz-25,000 Hz 30 Hz-20,500 Hz +/−2dB	17 Hz-25,000 Hz 25Hz-21,500 Hz+/-2 dB
Recom. Assoc. Amplification	5-60 watts/channel	10-80 watts/channel	10-125 watts/channel	10 — 200 watts/channel	10-500 watts/channel
Crossover Frequency	100 Hz and 3,000 Hz	60 Hz and 3,000 Hz	60 Hz and 3,000 Hz	60 Hz and 3,000 Hz	50 Hz and 2000 Hz
Impedance	6 ohms	8 ohms	8 ohms	6 ohms	4 ohms
System Resonance	38 Hz	36 Hz	30 Hz	20 Hz	15Hz
Maximum Output Level	100dB	103dB	105dB	112dB	120dB
Cabinet Finish	Furniture Grade Rosewood woodgrain vinyl	Furniture Grade Walnut or Rosewood woodgrain vinyl	Furniture Grade Walnut or Rosewood woodgrain vinyl; or Real Walnut Veneer	Furniture Grade Walnut or Rosewood woodgrain vinyl; or Real Walnut Veneer	Furniture Grade Walnut or Rosewood woodgrain vinyl; or Real Walnut Veneer
Warranty	Limited two year parts and labor (see detailed warranty statement)	Limited five year parts and labor (see detailed warranty statement)	Limited five year parts and labor (see detailed warranty statement)	Limited five years parts and labor (see detailed warranty statement)	Limited five year parts and labor (see detailed warranty statement)
	Mounting brackets optional				

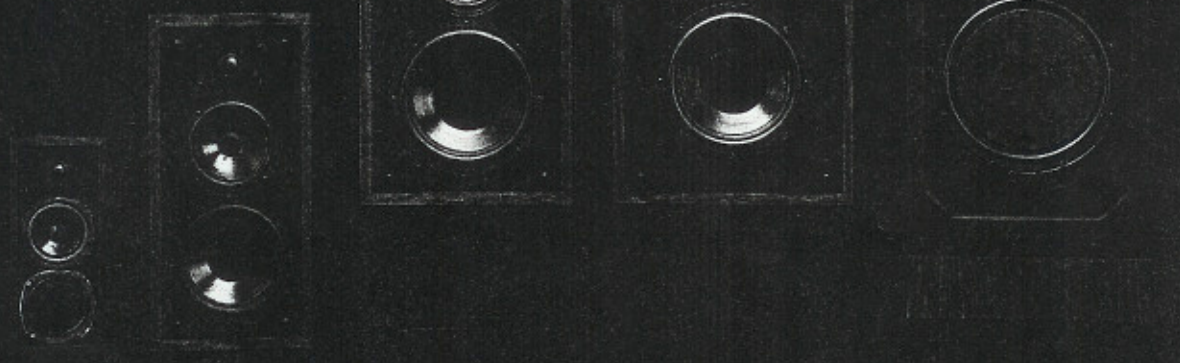
Speaker stands are recommended, but optional.

Specifications subject to change without notice due to design refinements and/or improvements.

Furniture Grade Rosewood Woodgrain Vinyl

Furniture Grade Walnut Woodgrain Vinyl

Real Walnut Veneer



Manufactured in the U.S.A. by skilled American labor.

Authorized Dealer

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