



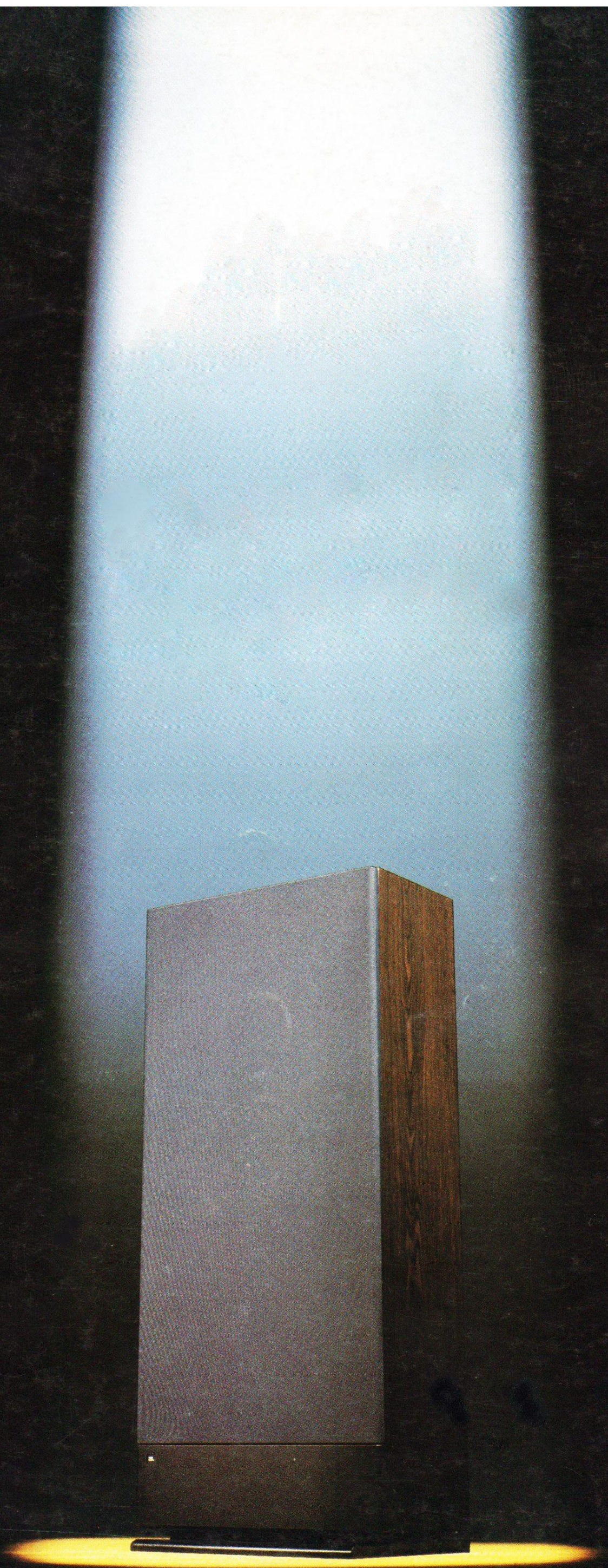
JBL62

JBL82

JBL630

JBL830

JBL940





JBL loudspeaker systems are featured in over 70% of the recording studios worldwide, and relied on for sonic accuracy.

JBL . . . THE PROFESSIONAL CHOICE

JBL's technical expertise and sonic integrity have made JBL loudspeakers the choice of audio professionals around the world for more than forty years.

Recording engineers depend on their studio monitor loudspeakers for accurate sound reproduction. Motion picture sound tracks require even more rugged, wide range theater speakers. Concert halls need superior sound reinforcement systems for proper amplification. Rock concerts must have sound systems that can maintain

fidelity at enormous sound pressure levels for hours on end. In all of these applications, JBL loudspeaker systems are the choice of professionals.

JBL has played an important part in making records since records have been made. They're the choice of such major recording companies as Warner Brothers, Capitol and EMI, as well as nearly seventy percent of the recording studios worldwide. JBL is the choice of renowned concert halls, including Lincoln Center's Avery Fisher Hall in New York; the Kennedy Center in Washington, D.C.; and the Mormon Tabernacle, Salt Lake City. They're the choice of state-of-the-art motion picture theaters throughout the country. They're the choice of superstar rock artists on tour. And they're the choice of



such major rock events as Live Aid in America, where JBL loudspeakers supplied the sound for the largest gathered rock audience in history.

From the very beginning, JBL's fine craftsmanship and innovative engineering have been unmatched in the industry. And they promise to remain so for the next forty years. JBL. . .Bringing professional sound all the way home.

ENGINEERING EXPERTISE

There are basically two ways for a company to build a loudspeaker system. The most common method is to buy the component parts from mass suppliers and assemble them, accepting the inevitable compromises which result from using off-the-shelf components.

JBL has a better way. For nearly forty years JBL has designed and built the entire system. . .from the initial computer calculations to the finished product. All variables are controlled, so design goals never have to be compromised.

Better engineering is the JBL approach to better sound. At JBL, engineering takes many forms: component design, testing of materials, manufacturing techniques and electronics.

JBL always seeks new and better materials and subjects them to thorough examinations, including detailed vibrational analysis and magnetic measurements.

JBL measures and analyzes tone bursts, impulse response and phase response with the use of state-of-the-art time-display spectrometry, Fourier analysis, and other advanced techniques. For the most accurate measurements conceivable, JBL employs a wide variety of specially calibrated condenser microphones, in addition to testing in their own anechoic chamber.

Human ears still remain JBL's most sensitive measuring instrument throughout a product's development. Every design is subjected to extensive critical listening by a panel that includes audiophiles, recording engineers and musicians.

MANUFACTURING PROFICIENCY

JBL considers manufacturing a crucial extension of the design process and spares no effort to ensure that the production models equal or exceed the performance of the engineering prototypes, both in their professional and consumer loudspeakers.

A key to JBL's manufacturing success is their ability to manufacture components to tolerances so tight, they cannot be approached by most of the industry. Since exacting tolerances cannot be precisely realized by competitive manufacturers, too

often the demo speaker heard in the store may not sound the same as the system brought home. JBL's strict quality control assures that the speakers brought home will sound the same as the ones heard in the store.

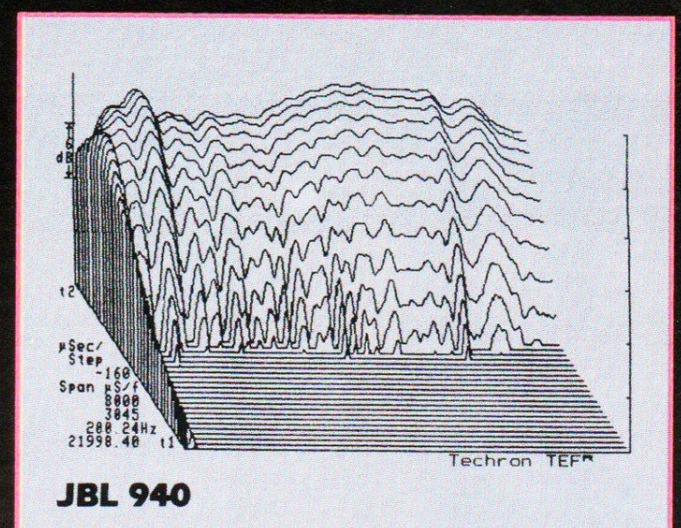
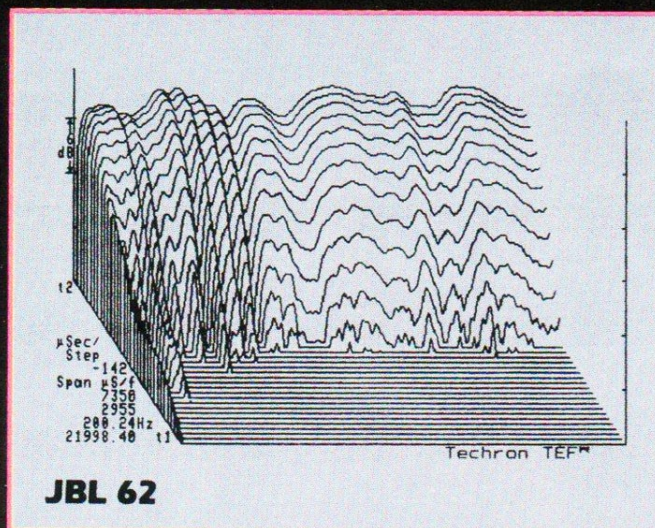
JBL SPEAKERS FOR ACCURATE SOUND REPRODUCTION

The accurate reproduction of sound makes a variety of physical demands on a loudspeaker. The deepest bass frequencies, especially at high sound pressure levels, require the speaker cone to travel quite a distance in order to move the necessary amount of air. Conversely, high frequencies require a diaphragm that can move much more rapidly, over shorter distances. The choice of capacitors, resistors, inductors and the circuitry in speaker design is of critical importance to the resulting sound.

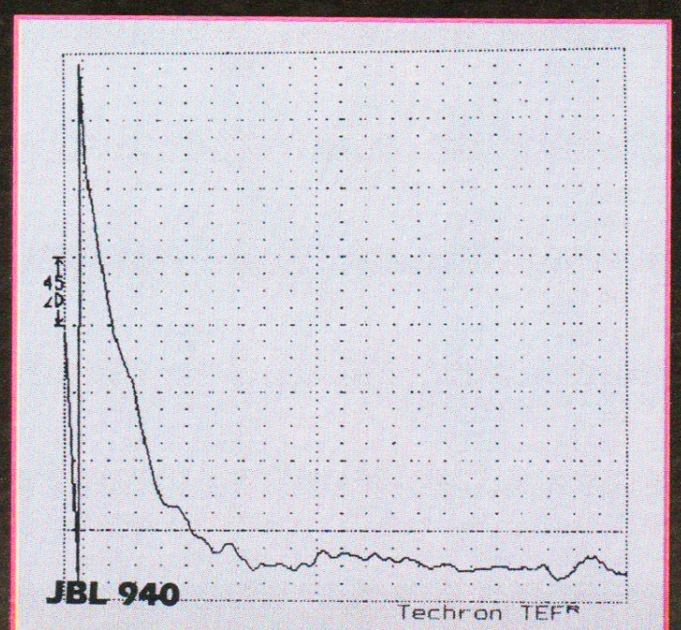
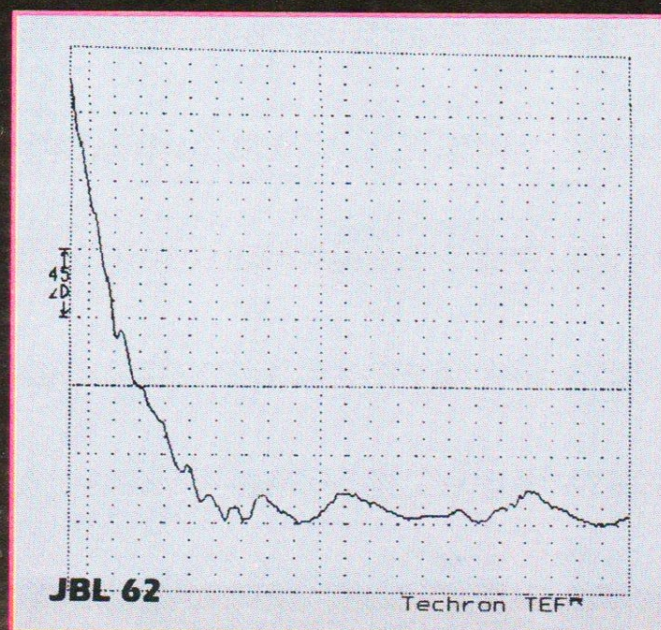
JBL's home loudspeaker systems combine traditional JBL performance values with elegant contemporary appearance at affordable prices. These loudspeakers offer quality, high power handling, high sensitivity and the highest fidelity sound quality in their price range.



More than 2,400 individual loudspeaker components made up the 400,000 Watt JBL sound system built to power the three-day "US Festival" in Southern California. Critics from music industry publications called the system "the best outdoor sound system ever constructed."



This graph shows the frequency response (vertical axis) and time domain response (depth axis) of the JBL 62 (shown on the left) and the JBL 940 (shown on the right). By measuring and graphically displaying both parameters simultaneously, JBL engineers can optimize each design for the smoothest, most uniform performance.

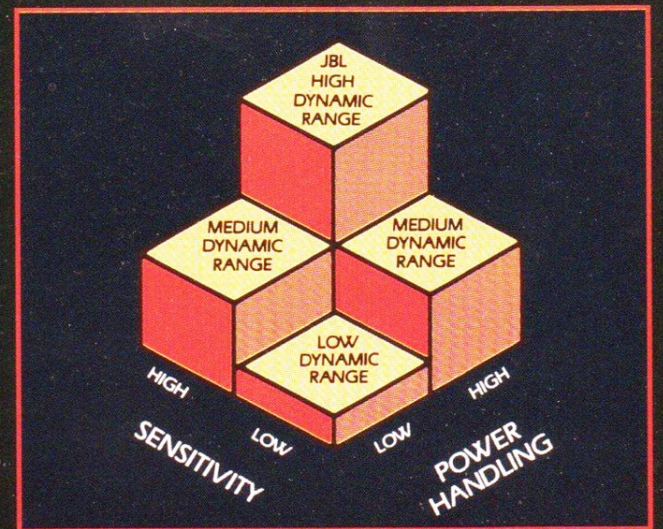


The above Phase Response Charts depict the relative acoustical phase angle vs. frequency for the JBL 62 (shown on left) and the JBL 940 (shown on right). For most of the frequency range, both models exhibit very little change in relative phase angle, thereby maintaining the critical time relationships that provide accurate stereo imaging.

DYNAMIC RANGE, POWER HANDLING, EFFICIENCY

DUAL-ACTIVE LOW FREQUENCY TRANSDUCERS

The JBL630, JBL830 and JBL940 all utilize a unique Dual-Active Low Frequency Transducer system. These transducers operate simultaneously in the low frequency region for a fast, rich, powerful bass. While the JBL940 has a separate



The above diagram shows that only a combination of high power handling and high sensitivity will produce a dynamic range that is high enough to meet JBL's tough standards.

midrange driver and sub-enclosure, special circuitry in the JBL630 and JBL830 divide the sound, enabling the second low frequency transducer to handle the demanding midrange frequencies. This innovative design is an excellent, cost-efficient solution to the suppressed response and/or limited power handling problems prevalent in the midrange of many conventionally designed speakers. The JBL home loudspeakers' Dual-Active Low Frequency system delivers powerful bass and a strong midrange, as well as a smooth transition from mid to high frequencies.

HIGH EFFICIENCY WITH HIGH FIDELITY

The JBL loudspeaker systems were specifically engineered to deliver high efficiency, full dynamic range and wide bandwidth. In the past, many speaker manufacturers have offered high efficiency loudspeakers in their product line. A typical trade-off in obtaining their high efficiency, however, has been poor bass response and poor low frequency power handling capability. The resulting sound quality from these types of speakers is often thin. Their lack of depth is not correctable with either tone controls or an equalizer, because their design lacks the low frequency power handling capacity to withstand such compensation. The JBL home loudspeaker systems properly reproduce the wide bandwidth of digital material, as well as accurately reproducing the material's extended dynamic range.



TITANIUM LAMINATED HIGH FREQUENCY TRANSDUCER DOMES

Borrowing from the acclaimed JBL "Ti" series, the JBL home loudspeaker systems use titanium—a material that is harder than steel, yet half the weight—in the construction of the high frequency transducers. To yield a superior product at greater value, the titanium is vapor-deposited onto a phenolic dome high frequency transducer. This enables JBL to combine the best characteristics of both a soft and a hard dome: good internal damping to control unwanted resonances and fast response to capture the musical transients plus extreme dynamic range made possible by the tremendous rigidity of the titanium lamination.

In addition, to help provide flat response and even dispersion, a unique acoustic phase alignment ring sits directly over the laminated dome.

Because the floor-standing models are especially high in efficiency, JBL developed a high frequency driver capable of matching their extraordinary efficiency levels. A massive driver assembly coupled with a lightweight, yet strong, domed titanium laminate diaphragm, yields superior performance not available from conventional soft domed high frequency transducers.

HIGH POLYMER LAMINATED MID AND LOW FREQUENCY TRANSDUCER CONES

The mid and low frequency transducers of the JBL loudspeaker systems are all laminated with a high polymer material. The composite was developed by adding a polymer based layer to a pulp base. This results in optimum stiffness, mass and internal damping to ensure proper cone movement and wave propagation. By utilizing this material, the problems of rippling, cone fatigue and strain are eliminated and distortion is reduced to inaudible levels. The result is clean, clear low frequency response that's smooth, accurate and capable of handling the enormous power of even the most demanding source material.



Borrowing from the acclaimed "Ti" Series, all JBL home loudspeaker systems use titanium—a material that is harder than steel, yet half the weight—in the construction of the high frequency transducers.

ACCURATE STEREO IMAGING

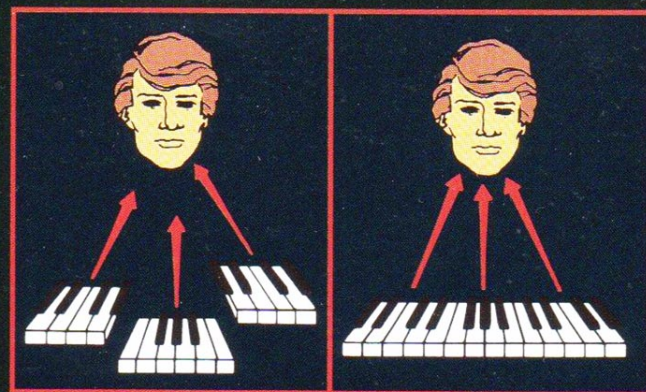
HIGH SPATIAL IDENTIFICATION DIVIDING NETWORKS

Crossover points between components are achieved by High Spatial Identification Dividing Networks. As the initial stage within the speaker, these sophisticated networks are crucial to the overall balance of sound, deciding which parts of the music go to each transducer, instantly and accurately.

The type of circuit configuration used at this important stage has a strong effect on sound quality. JBL uses only the most advanced circuitry, with proven, time-tested track records.

Accurate design and precisely calculated values are critical to achieving high performance. JBL loudspeaker systems use only inductors that provide low signal loss and reduced distortion, especially at high signal levels. The capacitors feature low signal loss overall, especially at high frequencies, low distortion and accurate values. By-pass capacitors, used in conjunction with the main capacitors in the circuit, result in a further reduction of both distortion and high frequency losses.

The High Spatial Identification Dividing Networks' use of quality circuit components and advanced circuit configurations prevent this vital area from becoming a weak link in the reproduction chain. The sound gets to



In the example above left, the low frequencies from the piano arrive at the listener at a different time than those for the mid or high frequencies. This disrupts and drastically confuses stereo imaging.

In the example above right, JBL launches a uniform wave front into the listening room. Each transducer delivers its particular range of frequencies simultaneously for exceptionally accurate time/phase synchronization and stereo imaging.

the right place at the right time, for clear, detailed, musical sound reproduction with accurate, flat response and excellent stereo imaging.

TIME/PHASE IMAGING

For maximum stereo imaging, JBL loudspeaker systems are designed with exceptionally accurate time synchronization. Many speaker manufacturers concentrate on frequency response specifications at the expense of synchronization, resulting in a garbled stereo image. The JBL loudspeaker systems are engineered to launch a uniform wave front into the listening room. Each transducer delivers its particular range of frequencies to your ears simultaneously. A vertical center line configuration is also featured for exact symmetry, further ensuring accurate, instantaneous delivery of the full range of music to listeners both on and off axis. With JBL home loudspeaker systems you get full, clean, flat sound plus accurate stereo imaging for an exciting, true-to-life audio experience.

CONSTRUCTION AND APPEARANCE

QUALITY INTERNAL AND EXTERNAL CONNECTIONS

Internal connections are made with heavy-gauge audiophile cable for more complete and instantaneous current transfer and lower distortion. External connections are all made through heavy duty terminals that will accept large-gauge audiophile cables, as well as banana plug connectors. This is not only convenient and flexible, it also provides for the lowest electrical resistance.

CABINETRY... AESTHETIC AS WELL AS ACOUSTIC EXCELLENCE

With the premier millworking plant in the loudspeaker industry, JBL's cabinetry combines proven quality with innovative techniques. The cabinetry of JBL's new loudspeaker systems have been designed to reflect a tradition of aesthetic, as well as acoustic excellence.

Every exposed surface is finished in furniture grade vinyl laminates, machined to exacting standards for a seamless appearance. Each cabinet is lock-mitred for strength. The finely detailed base on the floor-standing models provides maximum stability, as well as giving the speakers a sleek, modern profile.

JBL's attention to the highest quality construction can also be seen in the custom-molded grille and grille cloth. Shaped for minimal acoustical interference and a perfect fit, this exclusive design adds to both the superior look and sound of the JBL home loudspeaker systems.

VALUE

All JBL home loudspeaker models attain a level of performance and construction unparalleled by any competitors at or near their price. They achieve this unique combination of quality and affordability through intelligent, innovative engineering that never loses sight of the overall design. This creative, efficient use of design and materials could only be possible from the manufacturer of the world's finest studio monitors and professional loudspeaker products. It can be seen in every aspect of their state-of-the-art technology. It can be heard in the clean, effortless, true-to-life sound of every JBL home loudspeaker system.

JBL 62

The JBL 62 compact bookshelf loudspeaker features a 1" Titanium Laminate domed high frequency transducer for excellent internal damping, fast response and superior dynamic range. A 6½" High Polymer Laminate low frequency transducer delivers clean, clear low frequency response and resistance to the effects of high power. Crossover points between components are achieved by High Spatial Identification Dividing Networks. Unique, precise circuitry, Polypropylene and low loss capacitors allow smaller value elements to correct for larger network capacitors. Inductors are all heavy wire design for smooth transducer-to-transducer transitions and proper imaging.

JBL 82

A powerful, compact bookshelf loudspeaker. The 1" domed high frequency transducer is Titanium Laminated for excellent internal damping and fast response to musical transients. An 8" High Polymer low frequency transducer ensures smooth response, minimum cone fatigue and excellent resistance to high power. Crossover points between components are all High Spatial Identification Dividing Networks. Heavy gauge wire design inductors prevent saturation at high signal levels. The JBL 82 also features precise circuitry, Polypropylene and low loss capacitors for maximum performance and efficiency.





JBL 630

A superior three-way floor-standing speaker that utilizes a 1" Titanium Laminate domed high frequency transducer and laminated High Polymer midrange. Two 6½" High Polymer low frequency transducers operate simultaneously in the demanding 30-180 cycle frequency range. Dual drivers deliver extremely fast transients in the low frequency section. Bass response is further extended by JBL's exclusive Reflex Alignment Porting. The JBL 630 also employs: High Spatial Identification Dividing Networks at crossover points between components; Polypropylene and low loss capacitors; heavy wire gauge inductors for smooth transducer transitions and proper imaging.

JBL 830

JBL combines performance and efficiency in a 3-way floor-standing speaker. The 1" Titanium Laminate domed high frequency transducer, High Polymer Laminate midrange and two 8" High Polymer Laminate low frequency transducers ensure control of unwanted resonances, excellent dynamic range and clean, clear, flat response. Dual drivers and JBL Reflex Alignment Porting assure fast low frequency transients and excellent bass response. The JBL 830 also employs High Spatial Identification Dividing Networks at crossover points, precise circuitry, Polypropylene and low loss capacitors, and heavy gauge wire design inductors. A massive driver assembly coupled with a lightweight, yet strong, diaphragm is also featured.

JBL 940

A high performance, high efficiency 4-way floor-standing speaker combining a 1" Titanium Laminate domed high frequency transducer and a 5" High Polymer Laminate midrange. 8" and 10" High Polymer Laminate low frequency transducers operate simultaneously in the 30-180 cycle frequency range. A massive high frequency assembly coupled with a lightweight, yet strong, diaphragm ensures superior performance and maximum efficiency. Dual drivers and JBL's Reflex Alignment Porting deliver excellent, room-filling bass response. High Spatial Identification Dividing Networks are utilized at all crossover points. Heavy wire gauge inductors, Polypropylene and low loss capacitors are also featured.

JBL62

2-Way System

1-inch high frequency transducer with titanium laminate diaphragm

6½-inch high polymer laminate low frequency transducer

Impedance: 8 Ohms

Sensitivity: 89 dB

Crossover: 3kHz

Recommended amplifier power range: 10-100 Watts*

Dimensions:
Height: 16"
Depth: 8½"
Width: 10"

Weight: 16 lbs. each

JBL82

2-Way System

1-inch high frequency transducer with titanium laminate diaphragm

8-inch high polymer low frequency transducer

Impedance: 8 Ohms

Sensitivity: 90dB

Crossover: 3kHz

Recommended amplifier power range: 10-125 Watts*

Dimensions:
Height: 22"
Depth: 8¾"
Width: 14"

Weight: 30 lbs. each

JBL630

3-Way System

1-inch high frequency transducer with titanium laminate diaphragm

Two 6½-inch high polymer low frequency transducers

Impedance: 4 Ohms

Sensitivity: 93dB

Crossover: 200Hz, 2500Hz

Recommended amplifier power range: 10-150 Watts*

Dimensions:
Height: 36¾"
Depth: 8¼"
Width: 15"

Weight: 40 lbs. each

JBL830

3-Way System

1-inch high frequency transducer with titanium laminate diaphragm

Two 8-inch high polymer low frequency transducers

Impedance: 4 Ohms

Sensitivity: 94dB

Crossover: 200Hz, 2500Hz

Recommended amplifier power range: 10-200 Watts*

Dimensions:
Height: 39¾"
Depth: 9¼"
Width: 16¾"

Weight: 53 lbs. each

JBL940

4-Way System

1-inch high frequency transducer with titanium laminate diaphragm

5-inch high polymer laminate midrange
8-inch and 10-inch high polymer laminate low frequency transducers

Impedance: 4 Ohms

Sensitivity: 94dB

Crossover: 200Hz, 800Hz, 4kHz

Recommended amplifier power range: 10-300 Watts*

Dimensions:
Height: 43¾"
Depth: 10¼"
Width: 18½"

Weight: 65 lbs. each

*Undistorted Music Signal



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JBL continually engages in research related to product improvement. New materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

