



This year's hottest double bill.

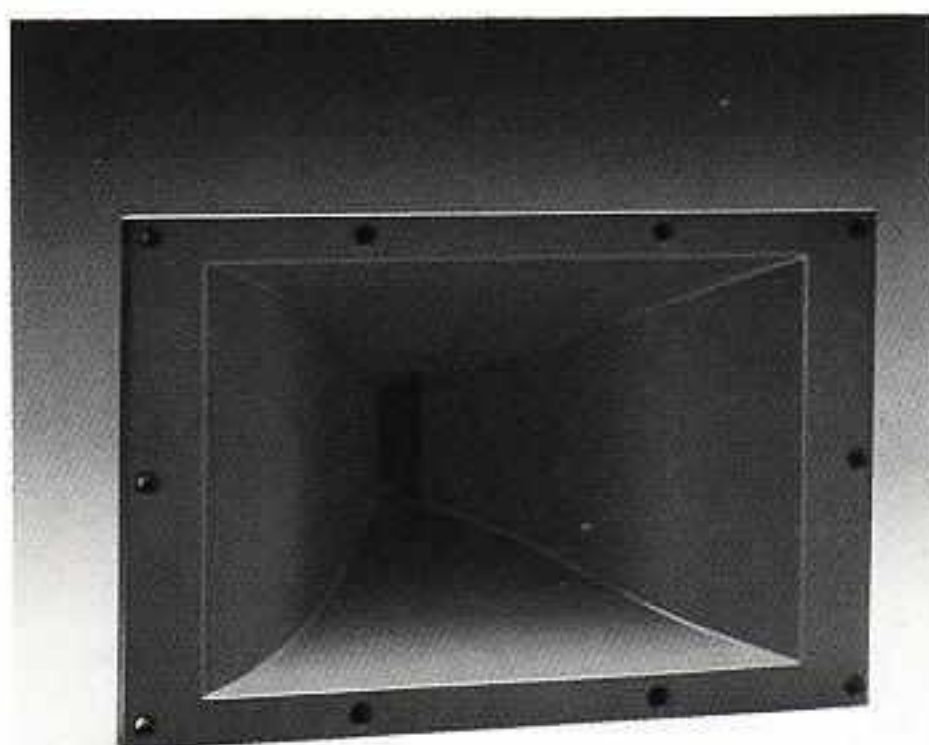
JBL Theater Products

No one has to tell you that today's moviegoers are more sophisticated and demanding than ever before. Faced with a growing number of home entertainment options, they're becoming increasingly selective about the movies they attend. So it takes a lot more than just a good title to sell tickets. It takes a high impact blend of sight, sound, and feel. And no aspect of theater design contributes more to this impact than the sound system.

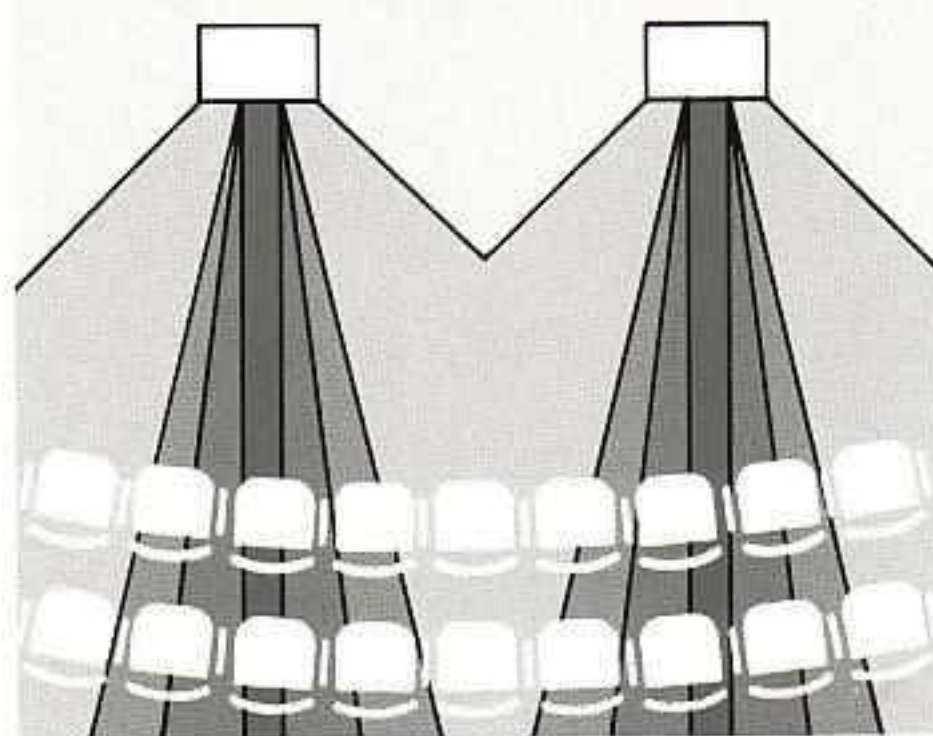
But while motion picture sound track technology has improved dramatically, standard theater speaker systems have remained basically unchanged for nearly forty years! And for a growing number of theaters, these massive, expensive systems are simply impractical. Because of this, many theaters have been forced to get by with equipment whose performance and reliability may be marginal at best.

At JBL, we don't think you should have to sacrifice performance to get the practical size you need. And to prove it we're introducing a new generation of space-efficient sound systems that provide the power, fidelity, and reliability to make your movies an unforgettable experience.

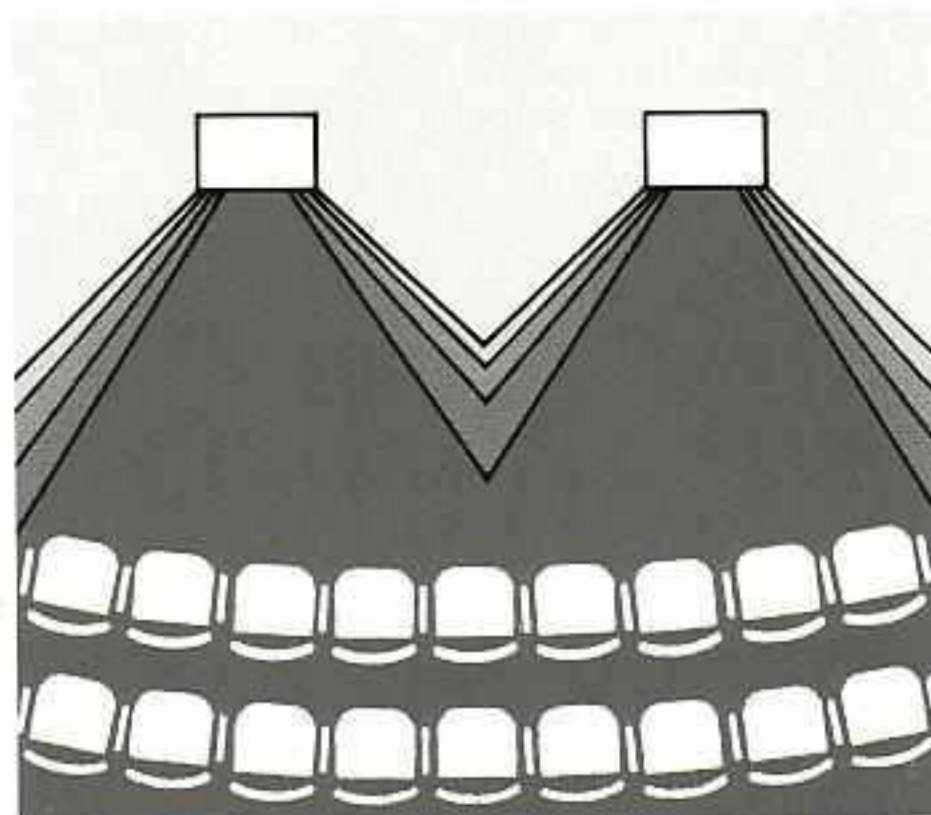
One key to this performance lies in the unique geom-



etry of the systems' patented Bi-Radial™ horns. Developed with the latest in computer design and analysis techniques, the horns provide constant coverage over their full usable



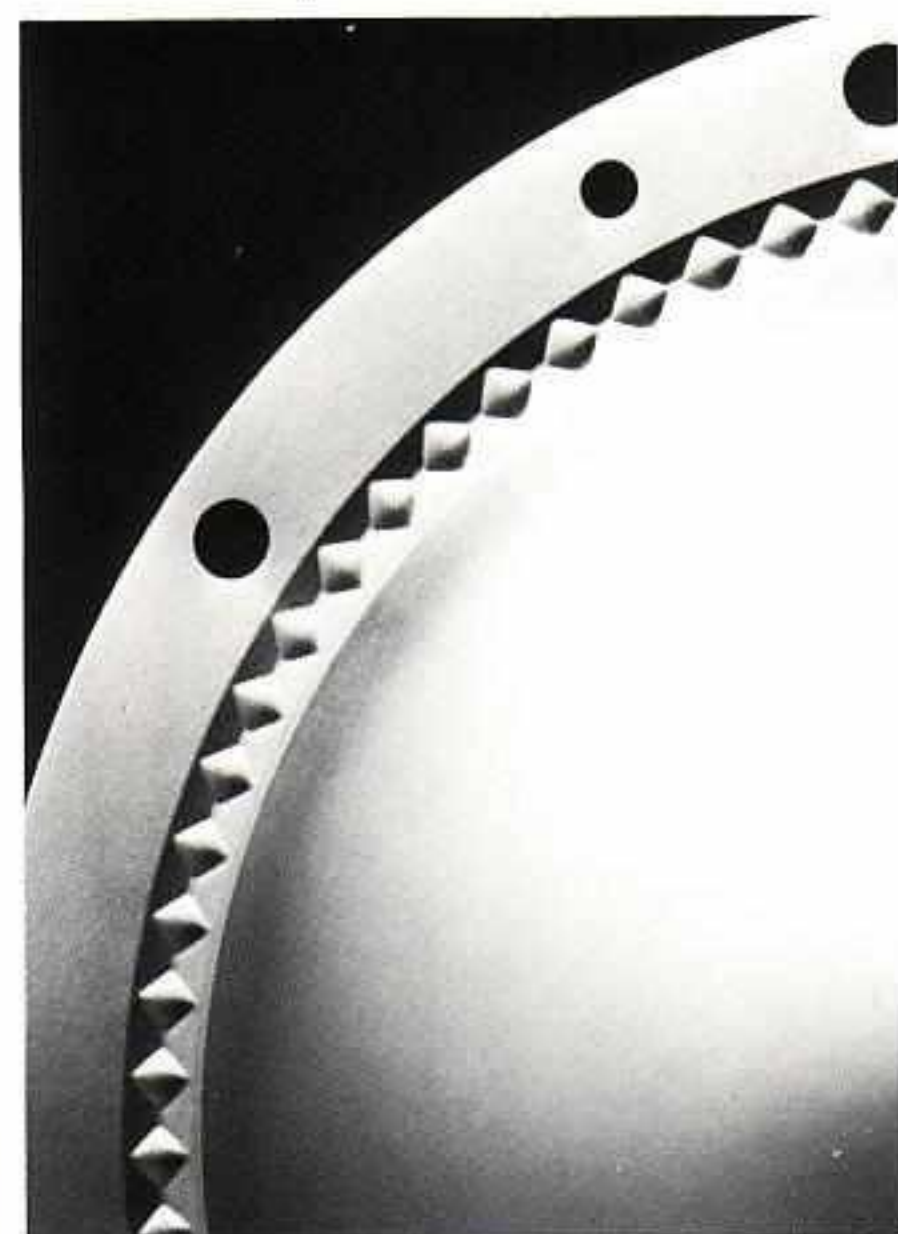
Conventional high frequency horns tend to narrow their coverage pattern as frequency rises. So full-range sound only reaches some of the audience.



JBL Bi-Radial™ horns maintain their wide coverage pattern at virtually all frequencies. Full-range sound reaches every seat in the house.

frequency range. So unlike conventional multicellular horns, Bi-Radial horns deliver exceptionally consistent response to every seat in the house.

Coupled to the horns are a new series of compression drivers that combine high reliability and power capacity with extended bandwidth and smooth, peak-free response. The drivers feature a pure titanium diaphragm with a unique three-dimensional, diamond-pattern surround.



JBL's titanium, diamond-pattern suspension diaphragm combines outstanding performance with unmatched reliability.

Both stronger and more flexible than conventional designs, this surround provides significantly improved high frequency performance.

And that's only part of the story. For maximum flexibility and smooth response to the lowest octaves, the systems are available with a wide range of perfectly matched low frequency components. Each low frequency loudspeaker incorporates JBL's Symmetrical Field Geometry (SFG) magnetic structure that reduces second harmonic distortion to inconsequential levels.



Symmetrical magnetic field of JBL SFG design significantly reduces distortion.

Additionally, the speakers utilize exceptionally long voice coils and carefully engineered suspension elements to ensure maximum excursion linearity and tight, controlled transient response.

The loudspeakers are housed in a number of different low frequency enclosure designs to meet the performance requirements of virtually any theater application. So you can select a system that offers the performance and size you need from a variety of designs that provide the flattest possible response with a minimum of adjustments.²

But while JBL Theater Systems offer remarkable technical advantages, they also offer an advertisable advantage. Because today's sophisticated audiences know that JBL loudspeakers are found wherever quality sound is critical—from concerts to recording studios to home stereo systems. And with JBL's Marquee Program and advertising support materials, you can let your audiences know that they'll find this same sound quality in your theater.

So if you're thinking about updating your theater sound system, call the JBL theater supplier in your area or the JBL Professional Products Division. And find out how a JBL Theater System and

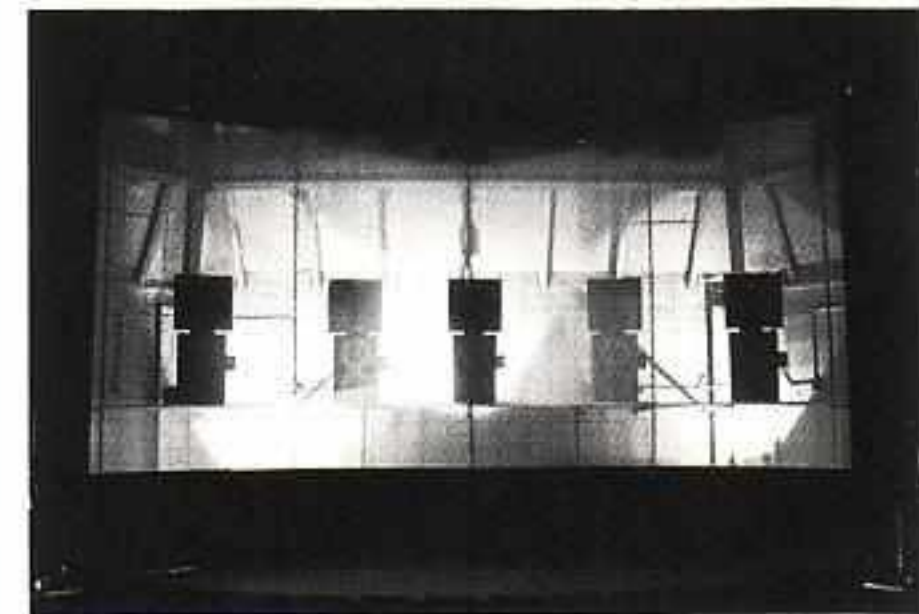


Systems shown in use at the dubbing stage/theater of the Sprocket Systems Division of Lucasfilm Ltd., Marin County, California.

today's advanced cinema technology can be your hottest double bill.



The Cinedome 7-Plex Theaters in Fremont, California have used JBL Theater Systems since opening their doors in December of 1981.



Dramatic back lighting provides a clear view of the Cinedome's use of JBL theater products.



JBL Theater Systems are also being used in the Goldwyn Sound Facility at Warner Hollywood Studios.

¹ Society of Motion Picture Engineers: "An Improved Loudspeaker System for Theaters;" J.B. Lansing and J.K. Hilliard, Vol. 45, No. 5 (Nov., 1945), p. 339.

² Society of Motion Picture and Television Engineers: "State-of-the-Art Cinema Sound Reproduction Systems—Technology Advances and System Design Considerations;" M. Engebretson and J. Eargle, Nov., 1982.

Direct Radiator Systems

Systems with direct radiator low frequency sections provide the flattest possible response to the lowest usable octave. These systems will require significantly less equalization than traditional horn-loaded low frequency designs, and will provide the smoothest response throughout the entire listening environment.

JBL Direct Radiator Theater Systems are available in either single or dual low frequency loudspeaker configurations. High frequency component choices include one inch or two inch throat compression drivers, and a variety of Bi-Radial™ constant coverage horns.

4671 The 4671 is ideally suited for use in smaller halls, due to its compact size. A two-way direct radiator system, the 4671 offers smooth frequency response to the lowest octaves, uniform coverage, and natural, uncolored sound quality. System components, housed in an optimally tuned enclosure, include the 2225H 380mm (15 in) low frequency loudspeaker, the 2425J high frequency compression driver, the 2370 flat-front Bi-Radial* horn, and the 3110A frequency dividing network.

4673 Designed for the medium-sized hall, the direct radiator 4673 system delivers smooth, deep and accurate full range sound reproduction with uniform coverage. The low frequency loudspeaker is identical to that of the 4671. It is complemented, however, by the larger, externally mounted, 2445J compression driver and 2380 flat-front Bi-Radial* horn. The 4673 is perfectly suited for those applications that require high acoustic output from a moderately-sized system.



4671



4673

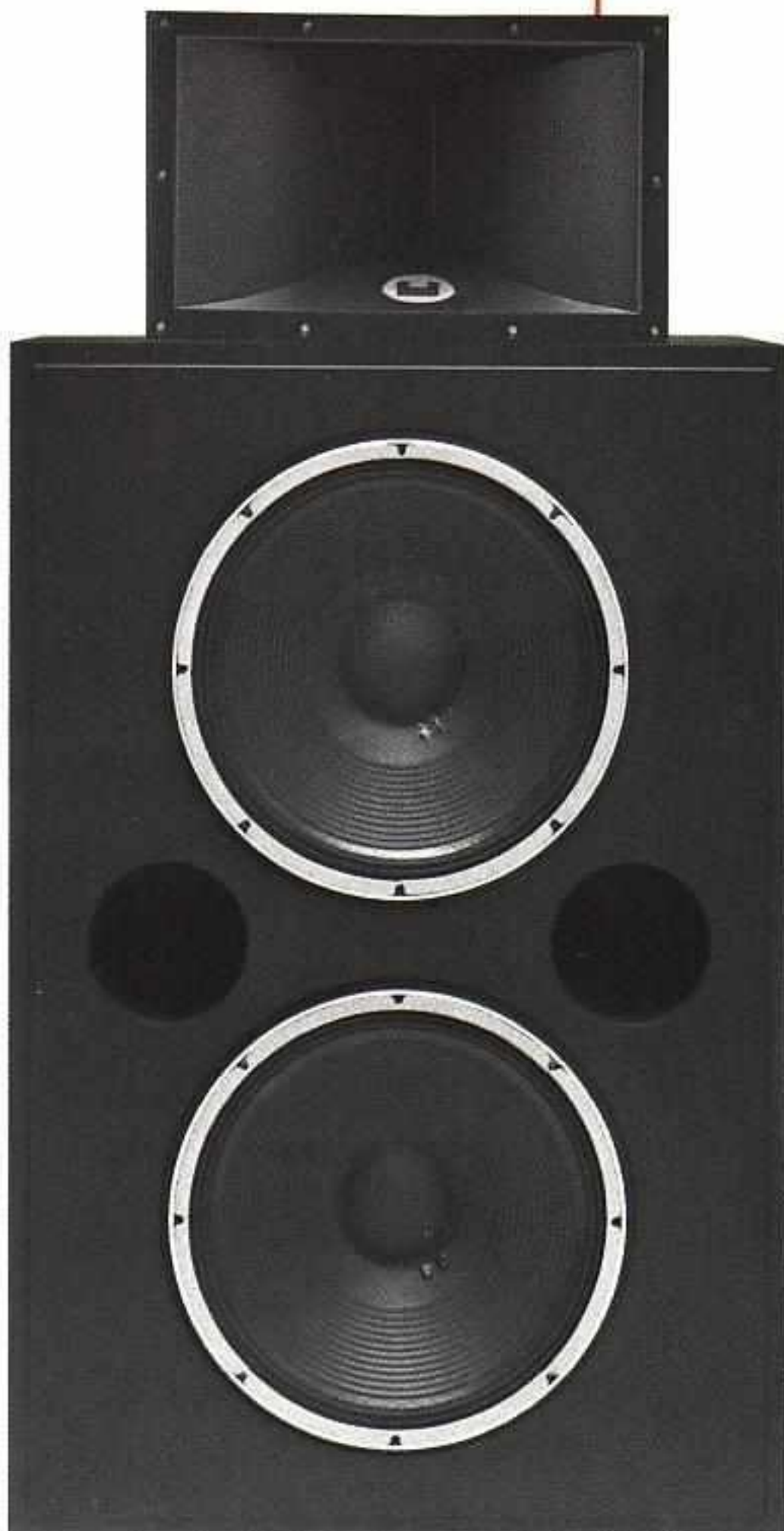
4670A The 4670A offers outstanding performance in a very compact package. The specially designed slim profile enclosure is perfectly matched with two 380 mm (15 in) low frequency loudspeakers, an externally mounted compression driver, and a flat-front Bi-Radial* horn. The result is a system that delivers wide bandwidth, high efficiency, wide horizontal dispersion, and excellent dynamic range.

4675 The 4675 provides smooth, clean sound with uniform coverage throughout the listening area. It consists of a powerful direct radiator low frequency enclosure

(a 4508 cabinet with two 380 mm (15 in) 2225J low frequency loudspeakers) and an externally mounted 2360 Bi-Radial* constant coverage horn and 2445J compression driver. This design results in more uniform frequency response throughout the entire operating frequency range, constant directivity and uniform coverage within the included

angle, a significant improvement in output capability, and a corresponding reduction in distortion. The addition of the 500 Hz crossover enables the 4675 system to avoid low frequency beaming effects. Delivering extremely high sound pressure levels throughout even the largest halls, the 4675 system is recommended when the ultimate in sound reproduction is required.

©U.S. Patent #4,308,932. Foreign patents pending.



4670A



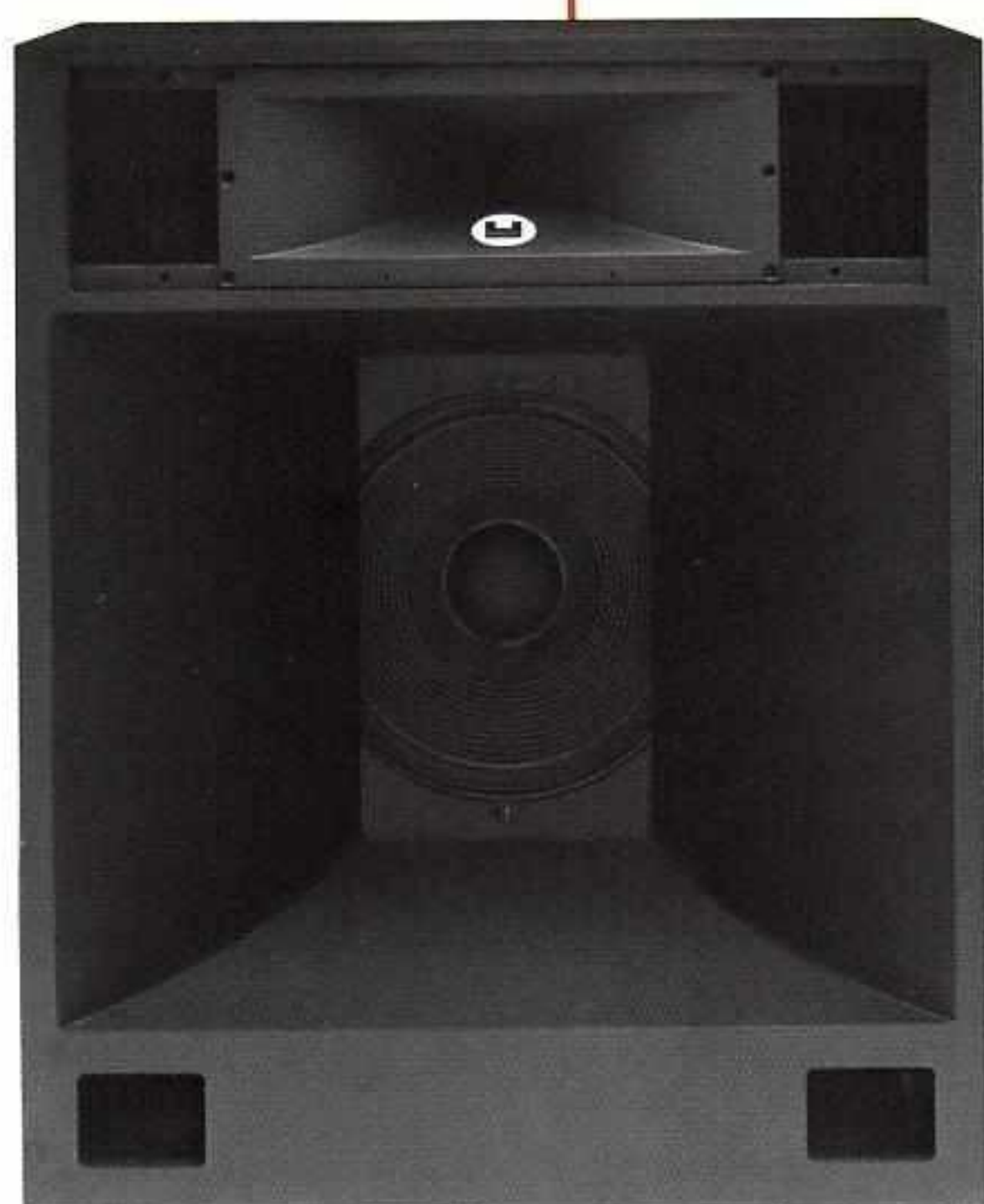
4675

Horn-Loaded Systems

Systems with horn-loaded low frequency sections provide maximum conversion efficiency through the use of short front-loading horns. Within their optimum operating frequency range, front-loading horns add 6 dB to the on-axis sensitivity of the loudspeakers. This allows a reduction in the number of loudspeakers required and the amplifier power needed. Additionally, usable low frequency response is extended through the use of a vented rear chamber.

4672A Perfectly suited for use in small halls, the 4672A is a compact, 2-way loudspeaker system that combines high efficiency, wide dispersion, and natural, uncolored sound quality. System components include a specially designed 380 mm (15 in) low frequency loudspeaker, high frequency compression driver and Bi-Radial[®] horn. All components are housed in an optimally tuned, horn-loaded enclosure.

4674A Designed for medium size environments, the 4674A delivers smooth, accurate full range sound reproduction. The low frequency components are identical to those in the 4672A. They are matched, however, with a larger, externally mounted Bi-Radial[®] horn and compression driver. The 4674A is recommended for those applications requiring high acoustic output and moderate system size.



4672A



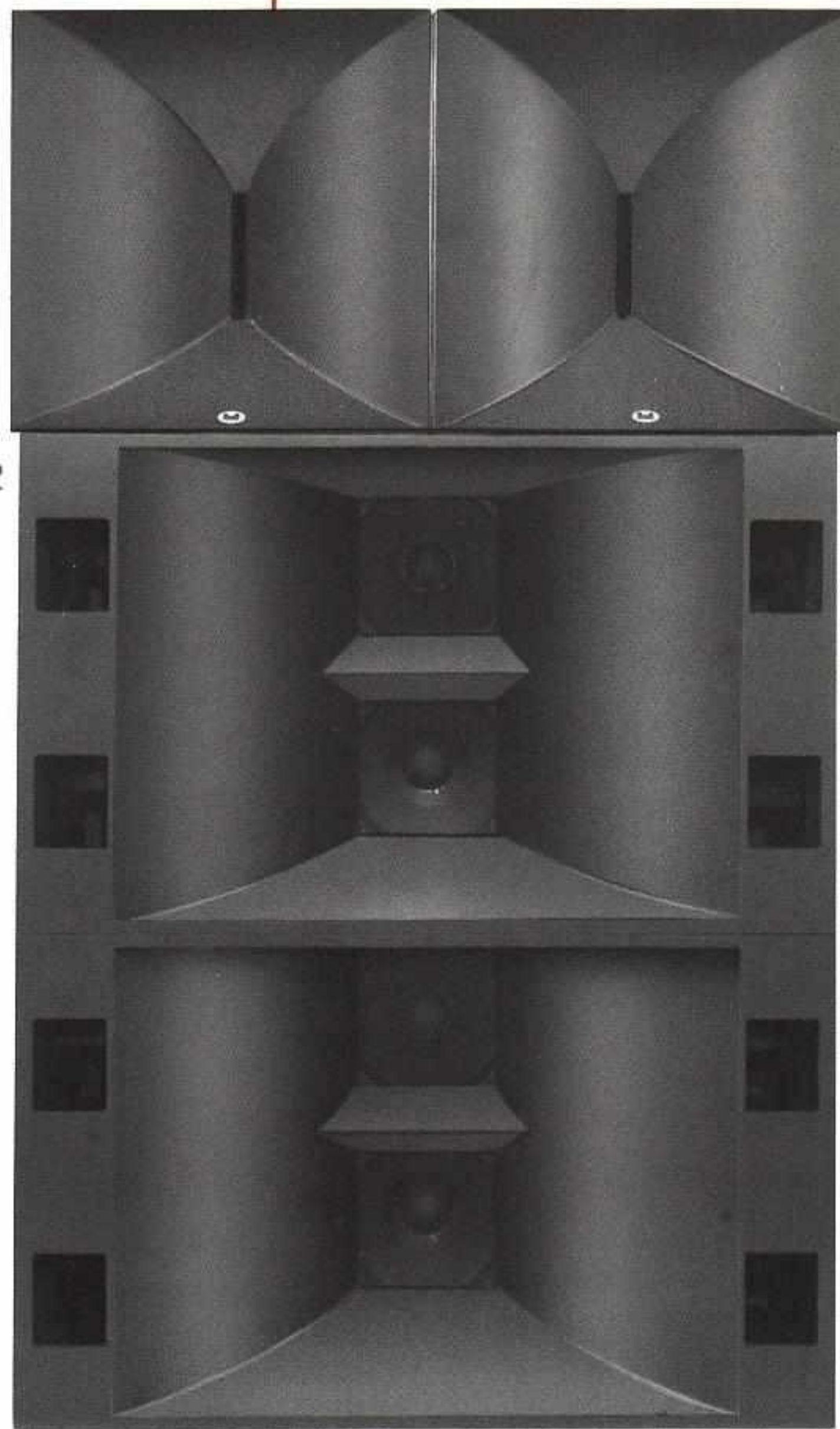
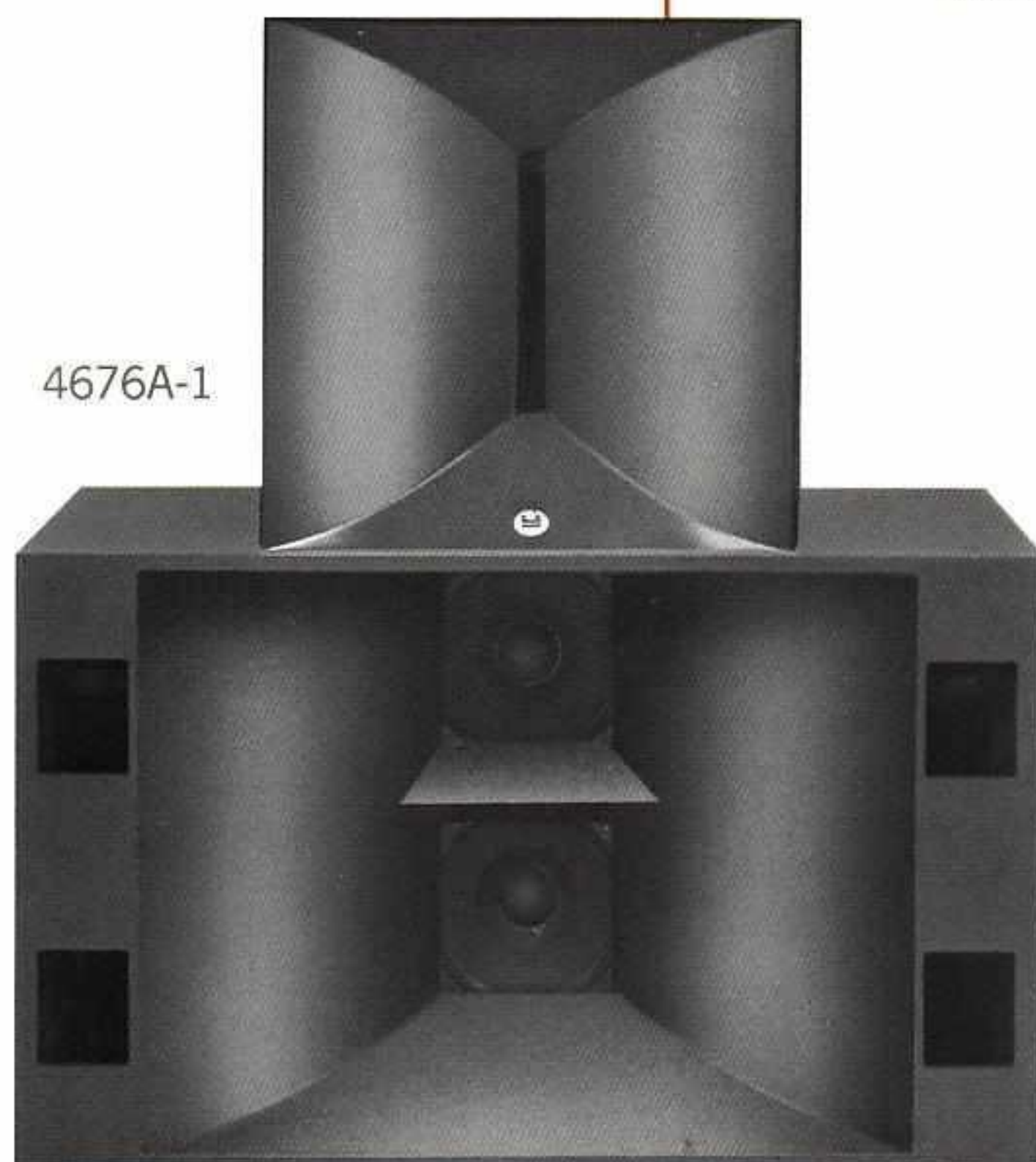
4674A

4676A-1 The 4676A-1 is an extremely efficient, 2-way loudspeaker system that is engineered to provide high level acoustic output, extended frequency response, and low distortion. The system utilizes two 380 mm (15 in) low frequency loudspeakers housed in a long-throw horn enclosure for bass reproduction. A single compression driver and Bi-Radial* horn are used for high frequencies. The 4676A-1 is ideal for use in moderate to large rooms.

4676A-2 JBL's most massive standard sound system, the 4676A-2 is capable of producing extremely high sound pressure levels in even the largest rooms. The system consists of two horn enclosures, four 380 mm (15 in) low frequency loudspeakers, two high frequency compression

drivers, and two 60° controlled-dispersion Bi-Radial* horns splayed horizontally to give 90° coverage. This unique array of components gives the 4676A-2 excellent power capacity, efficiency, and dynamic range.

*U.S. Patent #4,308,932. Foreign patents pending.



Specifications and Components

Specifications Direct Radiator Systems

Model	Frequency Range	Power Capacity		Sensitivity 1W, 1 m (3.3 ft)	Crossover Frequency ²	Horizontal Beamwidth	Nominal Impedance	Exterior Dimensions (Height x Width x Depth)	Net Weight
		(Continuous Pink Noise) ¹	(Continuous Program)						
4670A	35 Hz-20 kHz	300 W	600 W	100 dB SPL	500 Hz	90°	8 Ω	1289 mm x 673 mm x 438 mm 50¾ in x 26½ in x 17¼ in	92 kg 203 lb
4671	40 Hz-20 kHz	150 W	300 W	97 dB SPL	800 Hz	90°	8 Ω	546 mm x 948 mm x 448 mm 37¾ in x 21½ in x 17¾ in	39 kg 85 lb
4673	40 Hz-20 kHz	150 W	300 W	97 dB SPL	500 Hz	90°	8 Ω	546 mm x 1054 mm x 448 mm 41½ in x 21½ in x 17¾ in	50 kg 110 lb
4675	35 Hz-20 kHz	300 W	600 W	100 dB SPL	500 Hz	90°	8 Ω	1797 mm x 770 mm x 949 mm 70¾ in x 30¾ in x 37¾ in	98 kg 215 lb

Components Direct Radiator Systems

Model	Low Frequency Drivers	High Frequency Drivers	High Frequency Horn	Frequency Dividing Network ²	Accessories	Enclosure
4670A	2225J (2)	2445J (1)	2380 (1)	3152A	—	4508 (1)
4671	2225H (1)	2425J (1)	2370 (1)	3110A	—	4507 (1)
4673	2225H (1)	2445J (1)	2380 (1)	3115A	—	4507 (1)
4675	2225J (2)	2445J (1)	2360 (1)	3152A	2506 (1)	4508 (1)

Specifications Horn-Loaded Systems

Model	Frequency Range	Power Capacity		Sensitivity 1W, 1 m (3.3 ft)	Crossover Frequency ²	Horizontal Beamwidth	Nominal Impedance	Exterior Dimensions (Height x Width x Depth)	Net Weight
		(Continuous Pink Noise) ¹	(Continuous Program)						
4672A	45 Hz-20 kHz	150 W	300 W	103 dB SPL	800 Hz	90°	8 Ω	914 mm x 762 mm x 606 mm 36 in x 30 in x 23¾ in	62 kg 137 lb
4674A	45 Hz-20 kHz	150 W	300 W	103 dB SPL	500 Hz	90°	8 Ω	1194 mm x 762 mm x 606 mm 47 in x 30 in x 23¾ in	77 kg 170 lb
4676A-1	40 Hz-20 kHz	300 W	600 W	106 dB SPL	500 Hz	90°	8 Ω	1686 mm x 1524 mm x 949 mm 66¾ in x 60 in x 37¾ in	141 kg 311 lb
4676A-2	40 Hz-20 kHz	300 W	600 W	109 dB SPL	500 Hz	90°	8 Ω	2600 mm x 1524 mm x 949 mm 102¾ in x 60 in x 37¾ in	277 kg 610 lb

Components Horn-Loaded Systems

Model	Low Frequency Drivers	High Frequency Drivers	High Frequency Horn	Frequency Dividing Network ²	Accessories	Enclosure
4672A	2225H (1)	2425J (1)	2370 (1)	3110A	—	4560 BKA (1)
4674A	2225H (1)	2445J (1)	2380 (1)	3115A	—	4560 BKA (1)
4676A-1	2225J (2)	2445J (1)	2360 (1)	3152A	2506 (1)	4550 BKA (1)
4676A-2	2225H (4)	2445J (2)	2365 (2)	3152A 9375	2506 (2)	4550 BKA (2)

1. Rating based on test signal of filtered random noise conforming to international standard IEC 268-5 (pink noise with 12 dB per octave rolloff below 40 Hz and above 5,000 Hz with a peak-to-average ratio of 6 dB), two hours duration.

2. Due to standard motion picture industry recommendations, theater systems with large compression drivers are specified with 500 Hz crossovers. For high-power sound reinforcement applications, bi-amplification at 800 Hz is recommended.

