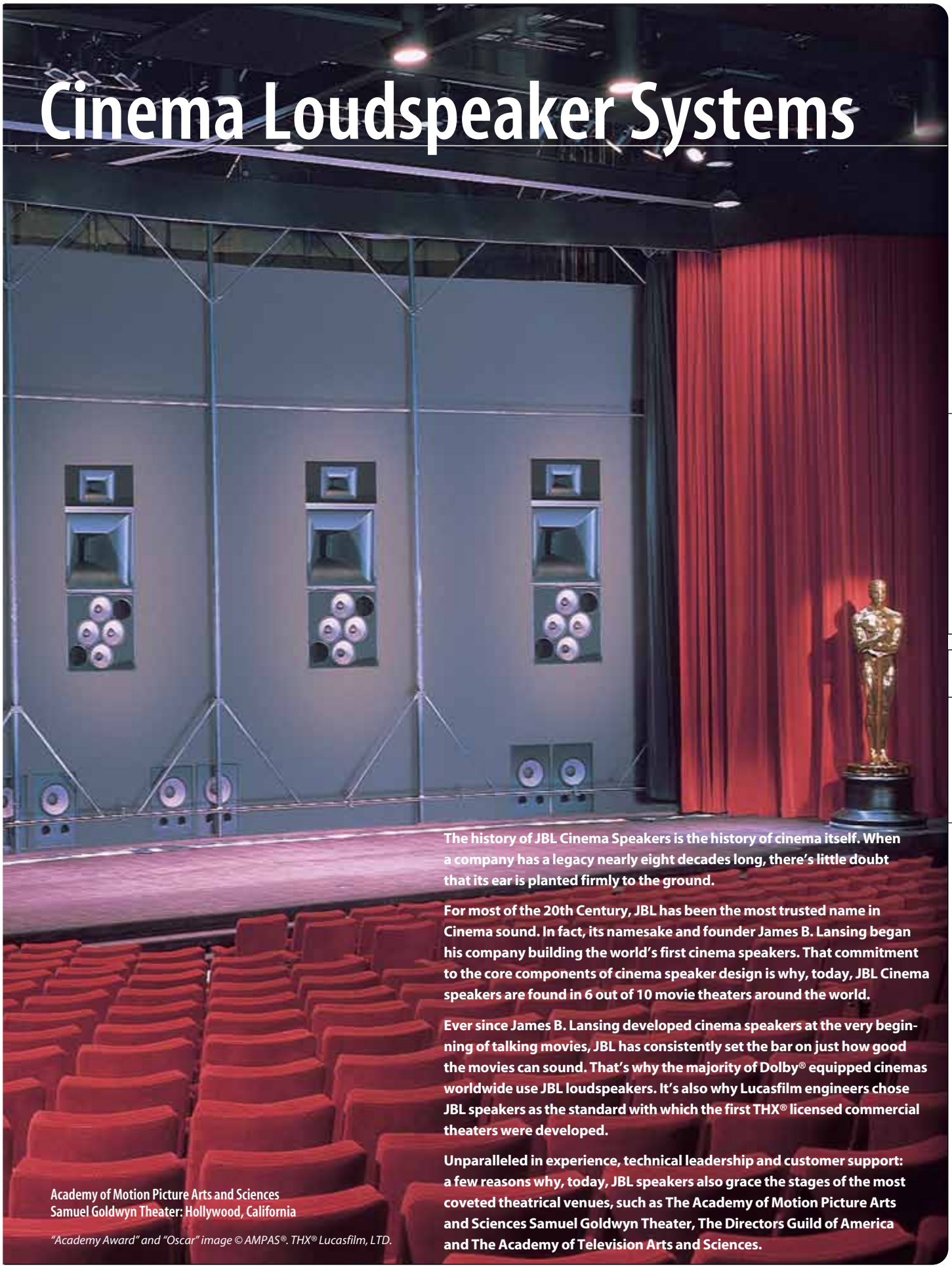
Cinema Loudspeaker Systems



Academy of Motion Picture Arts and Sciences
Samuel Goldwyn Theater: Hollywood, California

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The history of JBL Cinema Speakers is the history of cinema itself. When a company has a legacy nearly eight decades long, there's little doubt that its ear is planted firmly to the ground.

For most of the 20th Century, JBL has been the most trusted name in Cinema sound. In fact, its namesake and founder James B. Lansing began his company building the world's first cinema speakers. That commitment to the core components of cinema speaker design is why, today, JBL Cinema speakers are found in 6 out of 10 movie theaters around the world.

Ever since James B. Lansing developed cinema speakers at the very beginning of talking movies, JBL has consistently set the bar on just how good the movies can sound. That's why the majority of Dolby® equipped cinemas worldwide use JBL loudspeakers. It's also why Lucasfilm engineers chose JBL speakers as the standard with which the first THX® licensed commercial theaters were developed.

Unparalleled in experience, technical leadership and customer support: a few reasons why, today, JBL speakers also grace the stages of the most coveted theatrical venues, such as The Academy of Motion Picture Arts and Sciences Samuel Goldwyn Theater, The Directors Guild of America and The Academy of Television Arts and Sciences.

Ultra High Power Large Format ScreenArray®

5742

key features

- THX® APPROVED
- ULTRA HIGH POWER FOR LARGE CINEMAS
- BOTH 3-WAY AND 4-WAY SPEAKERS

The 5742 four-way and 5732 three-way Ultra High Power ScreenArray speakers provide extreme power for large format cinemas and are designed as the ideal loudspeaker system to enhance the 3-D visual experience. Both systems feature a 150 watt, 4" titanium diaphragm high frequency driver on JBL's patented Optimized Aperture waveguide.

5742

The 5742 Quad-Amplified System features true 4 way design with a quad midrange array of four 8" Differential Drive® cone midrange drivers providing 1400 Watts of smooth coverage coupled with a dual 18" low frequency section providing 1600 Watts of high impact power.

5732

The 5732 Tri-Amplified System is ideal for premier cinemas and post production facilities requiring enhanced power and headroom. The 5732 features a powerful 700 watt midrange section with dual 8" Differential Drive transducers. The low frequency section provides 1200 watts of power from dual 15" Vented Gap Cooled low frequency drivers.

5732

5742
(Back View)

5732
(SideView)

specifications

	5742	5732
FREQUENCY RANGE	25 Hz - 20 kHz	30 Hz - 20 kHz
FREQUENCY RESPONSE (±3 dB)	30 Hz - 19 kHz	40 Hz - 19 kHz
COVERAGE ANGLES	90° horizontal x 20° up 30° down	90° horizontal x 20° up 30° down
DIRECTIVITY FACTOR	10.0	10.0
DIRECTIVITY INDEX	10	10
MAXIMUM PEAK OUTPUT	136 dB @ 1 m	128 dB @ 1m
CROSSOVER FREQUENCIES:	220 Hz, 550 Hz, 1.3 kHz	250 Hz, 1.3 kHz
SENSITIVITY: 2.83V @ 1 m	115 dB	115 dB
SYSTEM INPUT POWER RATING	LF:1600 W, MF:1400 W, HF:150 W	LF:1200 W, MF:700 W, HF:150 W
DRIVERS: LF MF HF	2 x 2242 HPL 4 x 2169H 2452H-SL	2 x 2226 HPL 2 x 2169H 2452H-SL
SYSTEM ELEMENTS: LF MF/HF	5749 5742-M/HF	5739 5732-M/HF
DIMENSIONS (H x W x D)	2763 x 762 x 610mm 108.8 x 30.0 x 24 in	1937 x 762 x 450 mm 76.3 x 30.0 x 17.8 in
NET WEIGHT	128.1 kg (282 lb)	86 kg (190 lb)

Legacy Large Format Three-Way System

key features

- THX® APPROVED
- PROVEN HIGH PERFORMANCE AND RELIABILITY
- ADVANCED THREE-WAY DESIGN FOR THE MOST PRESTIGIOUS CINEMAS IN THE WORLD

5674

When the world's most prestigious cinemas want the very best, they specify the JBL 5674. The 5674 is today's most advanced three-way design, featuring an unmatched blend of high performance and unrivaled reliability.

5674

The 5674 features four JBL 2226H 380 mm (15 in) low-frequency transducers in a unique DiamondQuad™ array. This array orientation allows the four drivers to create maximum output, while minimizing destructive interference effects caused by the use of multiple drivers operating in the same bandpass region.

The 5674 requires tri-amplification and includes one 5644 Quad LF System and one 5674-M/HF System. The 5674 has earned THX Approval and is the same system used in The Academy of Motion Picture Arts and Sciences Samuel Goldwyn Theater and The Directors Guild Theater in Los Angeles. The JBL 5674, truly the world's finest three-way loudspeaker.

APPROVED THX®

specifications

	5674
FREQUENCY RANGE	35 Hz - 16 kHz (-10 dB)
FREQUENCY RESPONSE	45 Hz - 12.5 kHz (± 3 dB)
COVERAGE ANGLES (H x V)	80° x 45° (300 Hz - 16 kHz)
DIRECTIVITY FACTOR (Q)	10.4
DIRECTIVITY INDEX (DI)	11
MAX. PEAK OUTPUT: (LF/MF/HF)	143/140/137 dB @ 1 m
CROSSOVER FREQ.	LF/MF: 297 Hz; MF/HF: 2.5 kHz
SENSITIVITY: 1 W, 1 m	LF:103; MF: 114; HF: 112 dB
NOMINAL IMPEDANCE: (LF/MF/HF)	4 (per driver pair) /8/8 ohms
LF DRIVER(S) MF DRIVER/MF HORN HF DRIVER/HF HORN	4 x 2226H (2 pair in parallel) 2490H/2392 2451H/2352
SYSTEM ELEMENTS	LF: 5644; MF/HF: 5674-M/HF
DIMENSIONS (H x W x D)	2895.6 x 1118 x 863.6 mm 114 x 44 x 34 in
NET WEIGHT (EACH)	171.69 kg (378.5 lb)

The Directors Guild Theaters - Los Angeles, California

ScreenArray® Series

With the advent of digital cinema, today's cinema patron is even more demanding of perfect coverage in every seat of the auditorium, wide dynamic range and extended bandwidth and inaudible levels of distortion. Continuing to provide cinema exhibition venues and post production facilities with unprecedented audio performance and advanced technology, JBL introduced the "Next Generation" of its award winning ScreenArray® digital cinema loudspeakers.

The "Next Generation" ScreenArray 4722/4722N systems feature a new large format 3", neodymium, titanium diaphragm, high-frequency driver for ultra-high performance. The new high-frequency driver is coupled with a new patented high-frequency horn featuring Screen Spreading Compensation™ to correct for high frequency dispersion through perforated screens. Each of the new systems have improved, patented, crossover design and new Optimized Aperture Waveguides.

Since their introduction, JBL ScreenArray systems have become the choice for premium cinemas throughout the world. with significant improvements in performance and design, the new ScreenArray systems will continue to be the most popular cinema loudspeakers throughout the world.

JBL offers two ScreenArray systems to meet the challenges posed by lower cost installations. All systems products provide ultra smooth and accurate sound reproduction in a compact and highly cost effective system. The 3722N Passive system and 3722 Bi-amplified system, the 4722N Passive system and the 4722 Bi-amplified system feature feature the ultra-low distortion ScreenArray high frequency horn with SSC and dual 15" low-frequency sections.

3722/3722N

The 3722 and 3722N provide smooth and accurate reproduction of cinema soundtracks in a compact and very cost effective passive system.

The system is comprised of two parts: the 3722-HF high-frequency pack and the 3739 low-frequency system.

The ScreenArray horn features a patented design that compensates for high frequency spreading caused by perforated screens for greatly improved audience coverage. Together, these elements provide clear, accurate reproduction of the mid/high frequency information. All of these components come pre-assembled to reduce field assembly time thus reducing installation costs.

4722/4722N

The 4722 and 4722N provide smooth and accurate reproduction of cinema soundtracks in a compact and very cost effective system.

The system is comprised of two parts: the 4722-HF high-frequency pack and the 4739 low-frequency system. **The 4722N** passive system utilizes a sophisticated crossover network. Developed using computer optimization technology, it provides seamless transition resulting in excellent power response and controlled directivity.

specifications

	3722/3722N	4722/4722N
FREQUENCY RANGE	30 Hz - 18 kHz	30 Hz - 20 kHz
FREQUENCY RESPONSE	40 Hz - 16 kHz	40 Hz - 19 kHz
COVERAGE ANGLES	90° horizontal, -30°, +20° vertical	90° horizontal, -30°, +20° vertical
RATED MAXIMUM SPL:	127 dB, @ 1 m 133 dB peak	130 dB, @ 1 m 136 dB peak
CROSSOVER FREQUENCIES:	1300 Hz	4722: 630 Hz 4722N: 800 Hz
SENSITIVITY: 2.83V @ 1 m	104 dB	104 dB
NOMINAL IMPEDANCE:	3722: 4ohm 3722N/HF: 8 ohm 3722 N/LF: 4 ohm	4722: 4 ohms 4722N: HF 8 ohms 4722N: LF 4 ohms
DRIVERS: LF HF	2 x M115-8A 2418H-1	2 x 2035HPL 2432H
SYSTEM ELEMENTS: LF MF/HF	3739 3722-HF [3722N-HF]	4739 4722-HF [4722N-HF]
DIMENSIONS (H x W x D)	1265 x 762 x 450 mm 49.8 x 30 x 17.75 in	1289 x 762 x 450 mm 49.9 x 30 x 17.75 in
NET WEIGHT	62.2 kg (137 lb)	48.6 kg (123 lb)

key features

- DESIGNED FOR MAXIMUM OUTPUT, OPTIMAL COVERAGE, AND MINIMUM DISTORTION
- THX® APPROVED (4732-T, 3732-T and 3731-T)
- SHIPS FULLY ASSEMBLED
- ULTRA-LOW DISTORTION AND EXTREMELY UNIFORM FREQUENCY RESPONSE
- FLAT-FRONT DESIGN FOR EASY BAFFLEWALL INSTALLATION
- SHALLOW PROFILE FOR MINIMUM DEPTH BEHIND SCREEN (17 ¾")

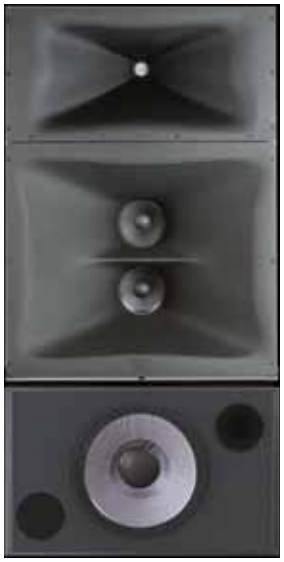
The ScreenArray Series features true three-way system design enhanced by advanced engineering. JBL Professional's best technical innovations are integrated in a system design that provides superior coverage, maximum power handling, and uniform acoustic power output, along with extremely low distortion.

The 3731, 3732 and 4732 ScreenArray Series systems are available for bi-amplified or tri-amplified operation. The 3730 is bi-amplified or passive switchable.

4732 [T]

3732 [T]

3731 [T]



3730

4732T APPROVED THX®

3732T APPROVED THX®

3731T APPROVED THX®

specifications

	4732 [T]	3732 [T]	3731 [T]	3730
FREQUENCY RANGE	30 Hz - 20 kHz	30 Hz - 20 kHz	30 Hz - 20 kHz	30 Hz - 18 kHz
FREQ RESPONSE (± 3 dB)	40 Hz - 19 kHz	40 Hz - 19 kHz	40 Hz - 19 kHz	40 Hz - 18 kHz
COVERAGE ANGLES	90° x 20° up, 30° down	90° x 20° up, 30° down	90° x 20° up, 30° down	90° x 20° up, 30° down
DIRECTIVITY FACTOR (Q)	10.0	10.0	10.0	10.0
DIRECTIVITY INDEX (DI)	10 dB	10 dB	10 dB	10 dB
MAXIMUM PEAK OUTPUT:	130 dB @ 1 m	125 dB @ 1 m	125 dB @ 1 m	120 dB @ 1 m
CROSSOVER FREQUENCIES:	250 Hz [1.2 kHz]	350 Hz [1.2 kHz]	350 Hz [1.2 kHz]	450 Hz [2 kHz]
SENSITIVITY: 2.83V @ 1 m	107 dB	103 dB	103 dB	105 dB
NOMINAL IMPEDANCE:	4 ohms	4 ohms	8 ohms	4 ohms
DRIVERS: LF MF HF	2 x 2035HPL 4 x 165H 2432H	2 x M115H-1 2 x 165H 2432H	1 x 2226H 2 x 165H 2432H	2 x M115H-1 1 x 195H 2414H
SYSTEM ELEMENTS: LF MF/HF	4739 4732-M/HF	3739 [3732T:4739] 3732-M/HF	5641 3732-M/HF	3739 3730-M/HF
DIMENSIONS (H x W x D)	2427 x 762 x 450 mm 95.6 x 30 x 17.75 in	1937 x 762 x 450 mm 76.3 x 30 x 17.75 in	1600 x 762 x 450 mm 63 x 30 x 17.75 in	1734 x 762 x 450 mm 68.25 x 30 x 17.75 in
NET WEIGHT (EACH)	84.4 kg (186 lb)	79.9 kg (172 lb)	51.8 kg (114 lb)	67.1 kg (147 lb)

Academy of Television Arts and Sciences
North Hollywood, California

Two-Way Systems

key features

- MAXIMUM VALUE, MINIMAL SET-UP AND INSTALLATION
- SMOOTH, EVEN COVERAGE
- 3678 APPROVED FOR THX® INSTALLATIONS

3678

3677

3678

The 3678 has a 11.5" shallow depth profile. JBL's patented Vented Gap Cooling™ keeps the 2226H working optimally, while the JBL 2432 Bi-Radial® horn and 2425HS pure titanium compression driver ensure smooth, even coverage, natural sound, and unsurpassed reliability. In the Bi-Amplified mode the 3678 is THX Approved.

3677

The 3677 combines classic JBL performance with a natural sound quality for both music and dialog. The ideal small system when minimum depth behind the screen is required. For extraordinary convenience, the all-in-one enclosure requires no field assembly.

specifications

	3678	3677
FREQUENCY RANGE	30 Hz - 20 kHz (-10 dB)	40 Hz - 20 kHz (-10 dB)
FREQUENCY RESPONSE	45 Hz - 12 kHz (± 3 dB)	45 Hz - 12 kHz (± 3 dB)
POWER CAPACITY [1]	300 W	250 W
COVERAGE ANGLES (H x V)	90° x 90°	90° x 40°
CROSSOVER FREQUENCY	1 kHz	1.2 kHz
SENSITIVITY: 1 W, 1 m	98 dB SPL	99 dB SPL
NOMINAL IMPEDANCE	8 ohms	8 ohms
LF DRIVER(S)	2226H	2035H
HF DRIVER	2425HS	2416-1
HORN	2342	2373
SYSTEM ELEMENTS: LF HF	3678-LF 3678-HF	(All-in-one enclosure)
DIMENSIONS (H x W x D)	1019 x 651 x 292 mm 40.125 x 25.625 x 11.5 in	765 x 651 x 292 mm 30.125 x 25.625 x 11.5 in
NET WEIGHT (EACH)	41 kg (90 lb)	39 kg (85 lb)

[1] *IEC filtered random noise (50 Hz - 5 kHz) with a crest factor (peak to average ratio) of 6 dB.*

Marcus Theatres UltraScreen; Orland Park, Illinois

Surround Systems

key features

- DESIGNED FOR SMALL, MEDIUM, LARGE AND VERY LARGE VENUES
- SMOOTH, EVEN COVERAGE
- THX® APPROVED

8320

The 8320 features a 200 mm (8 in) low frequency driver and a 25 mm (1 inch) soft dome driver combined with internal Thermomaster® technology allowing for 150 watts of power. The two-way 8320 reliability and performance postion this surround as the ideal low cost, compact choice for today's digital theatre.

8340A

The 8340A Surround speaker is an unbeatable choice when very high power handling, high sensitivity, extended bass response and a remarkably compact cabinet are the requirements. The two-way 8340A's proven reliability and performance have positioned it as the industry standard for the extended dynamic range required by today's digital sound formats. At 19 pounds, installation is quick and painless.

8350

The 8350 Surround offers very high power handling, high sensitivity, and extended bass response required for the extended dynamic range required by today's digital cinemas. The 8350 features a high power long-throw 250 mm (10 in) low frequency driver and a high frequency 38 mm (1.5 in) coil diameter compression driver.

specifications

	8320	8340A	8350
FREQUENCY RANGE	50 Hz - 20 kHz (-10 dB)	45 Hz - 18 kHz (-10 dB)	60 Hz - 19 kHz (-10 dB)
FREQUENCY RESPONSE	65 Hz - 18 kHz (± 3 dB)	70 Hz - 16 kHz (± 3 dB)	75 Hz - 17 kHz (± 3 dB)
POWER CAPACITY [1]	150 W	250 W	350W
COVERAGE ANGLES (H x V)	100° x 90°	100° x 80°	100° x 80°
CROSSOVER FREQUENCY:	3 kHz	2.2 kHz	1.4 kHz
SENSITIVITY: 1 W, 1 m	94 dB	96 dB	99 dB
NOMINAL IMPEDANCE	8 ohms	8 ohms	8 ohms
DRIVERS: LF	200 mm (8 in)	250 mm (10 in)	250 mm (10 in)
MF			
HF	25 mm (1 in)	25 mm (1 in) exit	25 mm (1 in) exit
DIMENSIONS (H x W x D)	406 x 343 x 224 mm 16 x 13.5 x 8.8 in	457 x 457 x 260 mm 18 x 18 x 10.25 in	457 x 457 x 260 mm 18 x 18 x 10.25 in
NET WEIGHT (EACH)	5 kg (11 lb)	8.6 kg (19 lb)	9.5 kg (21 lb)

[1] *IEC filtered random noise (50 Hz - 5 kHz) with a crest factor (peak to average ratio) of 6 dB.*

Mann Grauman's Chinese Theatre; Hollywood, California

Subwoofers

key features

- EXCEPTIONAL LOW FREQUENCY AUGMENTATION
- APPROVED FOR THX® INSTALLATIONS

3635

When a small cinema and an equally small budget are the orders of the day, the JBL **3635** is the perfect choice. It features one 460 mm (18 in) transducer, an unobtrusive shallow enclosure (14½"), true JBL performance and a surprising price.

4641

When a 600 Watt cinema system is what you need, the **4641** is the perfect choice for cost effective, low frequency augmentation.
The 4641 features one 460 mm (18 in) JBL 2241 VGC™ (Vented Gap Cooling) low-frequency transducer. The 4641 is THX® approved.

4642A

The 4642A is a dual 460 mm (18 in) subwoofer system featuring two VGC (Vented Gap Cooling) 2241H low-frequency transducers. This high-performance, cost effective 1200 Watt system is ideal for low-frequency augmentation when smooth response down to the lowest audible frequencies is required. An outstanding performer! The 4642A is THX® approved. Also available with grilles.

4645C

Approved by THX®, the **4645C** is the industry standard. The 4645C is a single 460 mm (18 in) direct radiator bass reflex subwoofer system featuring the 2242 SVG™ (Super Vented Gap) low-frequency transducer for highest output with lowest distortion. The 4645C is the choice whenever a premium performance single 460 mm (18 in) 800 Watt system is required for low-frequency augmentation.

specifications

	3635	4641	4642A	4645C
FREQUENCY RANGE (-10 dB)	28 Hz - 500 Hz	25 Hz - 500 Hz	22 Hz - 500 Hz	To 22 Hz (no EQ)
FREQUENCY RESPONSE (± 3 dB)	38 Hz - 100 Hz	See individual spec sheet	See individual spec sheet	See individual spec sheet
POWER CAPACITY	300 W	600 W	1200 W	800 W
CROSSOVER FREQUENCY	100 Hz	80 to 150 Hz	80 to 100 Hz	80 to 100 Hz
SENSITIVITY: 1 W, 1 m	100 dB	97 dB (40 - 100 Hz)	101 dB SPL	97 dB (40 - 100 Hz)
NOMINAL IMPEDANCE	8 ohms	8 ohms	4 ohms	8 ohms
LF DRIVER(S)	2042H (18 in)	2241H (18 in)	2 x 2241H (18 in)	2242H (18 in)
DIMENSIONS (H x W x D)	1168 x 651 x 368 mm 46 x 25.625 x 14.5 in	999.6 x 647.7 x 450 mm 39 x 25.5 x 17.75 in	762 x 1219 x 610 mm 30 x 48 x 24 in	999.6 x 647.7 x 450 mm 39 x 25.5 x 17.75 in
NET WEIGHT (EACH)	51 kg (113 lb)	60 kg (131 lb)	98 kg (216 lb)	63 kg (138 lb)

Cone Transducers & Compression Drivers

Manufacturing our own component transducers has historically set JBL apart from most other loudspeaker system manufacturers, and some of our numerous component transducers are available as sales models. All low-frequency units and compression drivers have been pre-qualified during the design phase with JBL's rigorous 100-hour 'torture test'. Units shown are legendary workhorses, often purchased in quantity for use in custom system designs.


2426H/J


2451H/J


2450H/J

VGC™ SERIES CONE TRANSDUCERS MODELS: 2206H, 2226H/J, 2241H

These low-frequency transducers incorporate JBL's patented Vented Gap Cooling technology in an improved Symmetrical Field Geometry (SFG) magnet structure. JBL engineers optimized both magnet weight, flux density and field saturation resulting in a reduction of overall driver weight and a significant reduction in harmonic distortion.

SVG™ SERIES CONE TRANSDUCERS Low-frequency Maximum Output Transducers MODEL: 2242H

The 2242H low-frequency transducer incorporates JBL's patented Super Vented Gap™ technology for improvement in power handling capability while minimizing power compression.

25 mm - 1" EXIT COMPRESSION DRIVER (44 mm - 1 3/4" Diaphragm)

The JBL 2426H/J incorporates JBL's titanium diamond diaphragm for ruggedness and outstanding frequency response.

38 mm - 1 1/2" EXIT COMPRESSION DRIVER (100 mm - 4" Diaphragm)

The 38 mm exit on the **2451H/J** compression driver allows the Coherent Wave™ phasing plug to directly couple with Optimized Aperture™ Bi-Radial® horns for lower distortion and better coverage control. The large format 100 mm (4 in) diaphragm design includes JBL's exclusive three dimensional diamond pattern which increases the driver's output in the 5 kHz to 20 kHz range when combined with the Coherent Wave phasing plug.

49 mm - 2" EXIT COMPRESSION DRIVER (100 mm - 4" Diaphragm)

The 2450H/J uses the optimized configuration of the Coherent Wave phasing plug design, offering coherent summation of acoustical power up to much higher frequencies than previous designs.

It also incorporates a neodymium rare-earth magnet assembly that provides the equivalent electromechanical conversion efficiency at two-thirds the size and one-third the weight required by previous large format compression driver designs.

Note: H version is 8 ohms impedance and J version is 16 ohms impedance.


2242H

specifications

	2206H	2226H/J	2241H	2242H
NOMINAL DIAMETER	300 mm (12 in)	380 mm (15 in)	460 mm (18 in)	460 mm (18 in)
RATED IMPEDANCE	8 ohms	8 ohms (H); 16 ohms (J)	8 ohms	8 ohms
POWER CAPACITY	600 W [1]	600 W [1]	600 W [1]	800 W [1]
SENSITIVITY: 1 W, 1 m	95 dB SPL [2]	97 dB SPL [2]	98 dB SPL [2]	99 dB SPL [2]
FREQUENCY RANGE (-10 dB)	45 Hz - 3.5 kHz	30 Hz - 2.5 kHz	30 Hz - 3 kHz	25 Hz - 1.6 kHz
HIGHEST CROSSOVER	1500 Hz	1200 Hz	800 Hz	1.0 kHz
VOICE COIL DIAMETER	100 mm (4 in)	100 mm (4 in)	100 mm (4 in)	100 mm (4 in)
VOICE COIL MATERIAL	Edgewound aluminum ribbon	Edgewound aluminum ribbon	Edgewound aluminum ribbon	Edgewound aluminum ribbon
HALF SPACE REFERENCE EFFICIENCY	2.5%	3.3%	2.9%	4%
NET WEIGHT (each)	7.8 kg (17.1 lb)	8.7 kg (19.25 lb)	10.7 kg (23.5 lb)	13.2 kg (29 lb)

	2426H/J	2451H/J	2450H/J
NOMINAL IMPEDANCE	8 ohms (H) 16 ohms (J)	8 ohms (H) 16 ohms (J)	8 ohms (H) 16 ohms (J)
POWER CAPACITY [1]	70 W above 800 Hz 100 W above 1.2 kHz	100 W above 500 Hz 150 W above 1 kHz	100 W above 500 Hz 150 W above 1 kHz
SENSITIVITY, 1 W, 1 m (Averaged)	110 dB [2] (1 kHz - 4 kHz)	111 dB [2] (500 Hz - 2.5 kHz)	111 dB [2] (2 kHz octave band)
FREQUENCY RANGE (-10 dB)	500 Hz - 20 kHz	500 Hz - 20 kHz	500 Hz - 20 kHz
RECOMMENDED CROSSOVER	800 Hz or higher	500 Hz or higher	500 Hz or higher
DIAPHRAGM: SIZE MATERIAL	44 mm (1 3/4 in) Pure titanium	100 mm (4 in) Pure titanium	100 mm (4 in) Pure titanium
VOICE COIL MATERIAL	Aluminum ribbon	Aluminum ribbon	Aluminum ribbon
FLUX DENSITY	1.8 T (18,000 gauss)	1.9 T (19,000 gauss)	1.9 T (19,000 gauss)
DIMENSIONS: DIAMETER DEPTH	149 mm (5.875 in) 104 mm (4.125 in)	167 mm (6.6 in) 76 mm (3 in)	167 mm (6.6 in) 139 mm (5.5 in)
NET WEIGHT (each)	4.3 kg (9.5 lb)	4.5 kg (10 lb)	4.8 kg (10.5 lb)

[1] AES standard (50 - 500 Hz)

[2] Based on a swept 100 to 500 Hz signal. 1 W is 2.83 V @ 8 ohms, 4.0V @ 16 ohms.

[3] Based on standard IEC 268-1

[4] Based on a swept 500 Hz to 2.5 kHz signal.

[1] Continuous program power is defined as 3 dB greater than continuous pink noise and is a conservative expression of the transducer's ability to handle typical speech and music program material.

[2] Sensitivity measured on a horn with a Q of 6.3.

Horns

2370A

2382A

2509A

OPTIMIZED APERTURE™ MID-SIZE BI-RADIAL® HORN MODEL: 2352

The Optimized Aperture Mid-Size Bi-Radial Horn are designed to provide high sound pressure level at low distortion over the bandwidth of 630 Hz to beyond 18 kHz with very uniform horizontal and vertical coverage from an optimum size horn. Extensive modeling was used to optimize the coverage pattern, reducing both distortion and size.

Constant horizontal and vertical coverage patterns provide easily predictable performance at any frequency or orientation. Cluster design is simplified and typical problems such as lobing and size are greatly reduced.

FLAT-FRONT BI-RADIAL® HORNS MODELS: 2370A, 2380A, 2382A, 2385A

The Flat-Front Bi-Radial Horns are designed for flush cabinet mounting or compact cluster applications. The horns provide uniform on and off axis frequency response at the rated frequencies.

The horn's small vertical mouth dimension (just slightly larger than the compression driver used to drive the horn) allows very compact single and multiple horn/driver systems to be put together. Should vertical pattern control be required below 2 kHz, two or more horns may be stacked vertically to restore full Bi-Radial™ performance.

HORN/DRIVER MOUNTING SYSTI MODELS: 2509A

The 2509 Professional Mounting Bracket is designed to facilitate easy installations and quick adjustability in a variety of applications. It is manufactured of rugged 1/8" steel and finished in black matte. The **2509** Professional Mounting Bracket is not intended for suspension applications.

The **2509A** is a two piece system that allows aiming and rotation in three planes—vertical, horizontal and rotation around axis. The width of the mounting slots and an included adaptor gasket allow use with the **2350** Series and the **2380** Series.

specifications

	2352
THROAT SIZE	38 mm (1 1/2 in)
ACCEPTS JBL DRIVERS	2447H/J, 2451H/J
NOMINAL DISPERSION	90° H x 40° V
DIRECTIVITY FACTOR (Q) (Averaged)	13 (630 Hz - 20 kHz)
DIRECTIVITY INDEX (DI) (Averaged)	11 (630 Hz - 20 kHz)
USABLE LOW FREQ. LIMIT	500 Hz
MIN. RECOMMENDED CROSSOVER	500 Hz @ 18 dB/oct min.
AXIAL PRESSURE SENSITIVITY [1]	112 dB
CONSTRUCTION	Fiberglass reinforced plastic
MOUTH: HEIGHT WIDTH	457 mm (18 in) 559 mm (22 in)
LENGTH	254 mm (10 in)
NET WEIGHT (each)	2.2 kg (6 lb)

OPTIMIZED APERTURE™ MID-SIZE BI-RADIAL® HORN MODEL 2352

	2370A	2380A	2382A	2385A
THROAT SIZE	25 mm (1 in)	49 mm (2 in)	49 mm (2 in)	49 mm (2 in)
ACCEPTS JBL DRIVERS	2426H/J	2446H/J, 2450H/J, 2485J	2446H/J, 2450H/J, 2485J	2446H/J, 2450H/J, 2485J
NOMINAL DISPERSION	90° H x 40° V	90° H x 40° V	120° H x 40° V	60° H x 40° V
DIRECTIVITY FACTOR (Q) (Averaged)	12.2 (1 kHz - 16 kHz)	10.7 (1 kHz - 16 kHz)	9 (630 Hz - 20 kHz)	19 (1 kHz - 16 kHz)
DIRECTIVITY INDEX (DI) (Averaged)	10.9 (1 kHz - 16 kHz)	10.3 (1 kHz - 16 kHz)	7.9 (500 Hz - 16 kHz)	12.8 (1 kHz - 16 kHz)
USABLE LOW FREQ. LIMIT	500 Hz	400 Hz	400 Hz	400 Hz
MIN. RECOM. CROSSOVER	630 Hz	500 Hz	500 Hz	500 Hz
AXIAL PRESSURE SENSITIVITY [1]	110 dB	112 dB	110 dB	114 dB
CONSTRUCTION	High density solid polyurethane	Molded structural foam	Molded structural foam	Molded structural foam
MOUTH: HEIGHT WIDTH	173 mm (6.81 in) 445 mm (17.5 in)	279 mm (11 in) 445 mm (17.5 in)	279 mm (11 in) 445 mm (17.5 in)	279 mm (11 in) 445 mm (17.5 in)
LENGTH	174 mm (6.84 in)	236 mm (9.28 in)	236 mm (9.28 in)	236 mm (9.28 in)
NET WEIGHT (each)	1.4 kg (3 lb)	2.2 kg (6 lb)	1.62 kg (3.5 lb)	2.2 kg (6 lb)

[1] *Measured on axis in the far field with 1 watt input and referred to 1 meter distance calculated by inverse square law. Listed sound pressure level represents an average from 1 kHz to 4 kHz.*