# **Cinema Loudspeaker Systems**

**UBI** 

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<sup>®</sup> equipped cinemas worldwide use JBL loudspeakers. It's also why Lucasfilm engineers chose JBL speakers as the standard with which the first THX<sup>®</sup> 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.

Academy of Motion Picture Arts and Sciences Samuel Goldwyn Theater: Hollywood, California "Academy Award" and "Oscar" image © AMPAS<sup>®</sup>. THX<sup>®</sup> Lucasfilm, LTD.

## Ultra High Power Large Format ScreenArray®



### key features

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<sup>®</sup> 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

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.

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



### Specific 5742 ions

FREQUENCY RESPONSE (±3 dB) COVERAGE ANGLES

DIRECTIVITY FACTOR DIRECTIVITY INDEX MAXIMUM PEAK OUTPUT CROSSOVER FREQUENCIES: SENSITIVITY: 2.83V @ 1 m SYSTEM INPUT POWER RATING DRIVERS: LF MF HF SYSTEM ELEMENTS: LF MF/HF DIMENSIONS (H x W x D) NET WEIGHT 25 Hz - 20 kHz 30 Hz - 19 kHz 90° horizontal x 20° up 30° down 10.0 10 136 dB @ 1 m 220 Hz, 550 Hz, 1.3 kHz 115 dB LF:1600 W, MF:1400 W, HF:150 W 2 x 2242 HPL 4 x 2169H 2452H-SL 5749 5742-M/HF 2763 x 762 x 610mm 108.8 x 30.0 x 24 in 128.1 kg (282 lb)

#### 30 Hz - 20 kHz 40 Hz - 19 kHz 90° horizontal x 20° up 30° down 10.0 10 128 dB @ 1m 250 Hz, 1 3 kHz 115 dB LF:1200 W, MF:700 W, HF:150 W 2 x 2226 HPL 2 x 2169H 2452H-SL 5739 5732-M/HF 1937 x 762 x 450 mm 76.3 x 30.0 x 17.8 in 86 kg (190 lb)

5742 (Rear View) 5732

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### **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<sup>®</sup> digital cinema loudspeakers.

The "Next Generation" ScreenArray 4722/4722N systems feature a new large format 3", neodymium, titanium diaphragm, highfrequency 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.



- 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 3/4")

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.



3730





**Academy of Television Arts and Sciences** North Hollywood, California



4732 [T]

key features

3732 [T]

4732T PROVED

### FREQUENCY RANGE

FREQ RESPONSE (± 3 dB) **COVERAGE ANGLES** 

**DIRECTIVITY FACTOR (Q) DIRECTIVITY INDEX (DI)** MAXIMUM PEAK OUTPUT: **CROSSOVER FREQUENCIES:** SENSITIVITY: 2.83V @ 1 m NOMINAL IMPEDANCE: **DRIVERS: LF** MF HF SYSTEM ELEMENTS: LF MF/HF DIMENSIONS (H x W x D) NET WEIGHT (EACH)



 $30^\circ\,\text{down}$ 

10.0

10 dB

107 dB

4 ohms

4 x 165H

2432H

4739

#### 3732 (T) 4732 [T] 30 Hz - 20 kHz 30 Hz - 20 kHz 40 Hz - 19 kHz 40 Hz - 19 kHz 90° x 20° up, 90° x 20° up, $30^\circ\,\text{down}$ 10.0 10 dB 130 dB @ 1 m 125 dB @ 1 m 250 Hz [1.2 kHz] 350 Hz [1.2 kHz] 103 dB 4 ohms 2 x 2035HPL 2 x M115H-1 2 x 165H 2432H 3739 [3732T:4739] 4732-M/HF 3732-M/HF 2427 x 762 x 450 mm 1937 x 762 x 450 mm 95.6 x 30 x 17.75 in 76.3 x 30 x 17.75 in 84.4 kg (186 lb) 79.9 kg (172 lb)



3731 [T]

3732T

IHX

30 Hz - 20 kHz 40 Hz - 19 kHz 90° x 20° up,  $30^\circ\,\text{down}$ 10.0 10 dB 125 dB @ 1 m 350 Hz [1.2 kHz] 103 dB 8 ohms 1 x 2226H 2 x 165H 2432H 5641 3732-M/HF 1600 x 762 x 450 mm 63 x 30 x 17.75 in 51.8 kg (114 lb)

30 Hz - 18 kHz
40 Hz - 18 kHz
90° x 20° up,
30° down
10.0
10 dB
120 dB @ 1 m
450 Hz [2 kHz]
105 dB
4 ohms
2 x M115H-1
1 x 195H
2414H
3739
3730-M/HF
1734 x 762 x 450 mm
68.25 x 30 x 17.75 in
67.1 kg (147 lb)

3730

### JBL Standard Cinema Systems



45 Hz - 12.5 kHz (± 3 dB)

80° x 45° (300 Hz - 16 kHz)

143/140/137 dB @ 1 m

LF/MF: 297 Hz; MF/HF: 2.5 kHz

LF:103; MF: 114; HF: 112 dB

4 (per driver pair) /8/8 ohms

4 x 2226H (2 pair in parallel)

LF: 5644; MF/HF: 5674-M/HF

2895.6 x 1118 x 863.6 mm

2490H/2392

2451H/2352

114 x 44 x 34 in 171.69 kg (378.5 lb)

10.4

11

FREQUENCY RANGE FREQUENCY RESPONSE COVERAGE ANGLES (H x V) **DIRECTIVITY FACTOR (Q)** DIRECTIVITY INDEX (DI) MAX. PEAK OUTPUT: (LF/MF/HF) **CROSSOVER FREQ.** SENSITIVITY: 1 W, 1 m NOMINAL IMPEDANCE: (LF/MF/HF) LF DRIVER(S) MF DRIVER/MF HORN HF DRIVER/HF HORN SYSTEM ELEMENTS DIMENSIONS (H x W x D) NET WEIGHT (EACH) \*\*\*\*\*\*\*\*\*

### Large Format Three-Way

#### 5674

The 5674 features four JBL 2226H 380 mm (15 in) low-frequency transducers in a unique DiamondQuad<sup>™</sup> 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.

### **Two-Way Systems**

#### 3252N

The JBL 3252N Screen Channel system provides smooth and accurate reproduction of cinema stoundtracks in a compact and cost effective 400 watt system. The convenient single enclosure, featuring dual 15" low frequency frivers and a Teonex diaphragm high frequency driver, requires no field assembly which simplifies installation.

#### 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.



3677

	3252N	3677
FREQUENCY RANGE	37 Hz - 20 kHz (-10 dB)	40 Hz - 20 kHz (-10 dB)
FREQUENCY RESPONSE	53 Hz - 18 kHz (± 3 dB)	45 Hz - 12 kHz (± 3 dB)
POWER CAPACITY	400 W <sup>1</sup>	250 W
COVERAGE ANGLES (H x V)	100° x 50°	90° x 40°
CROSSOVER FREQUENCY	2 kHz	1.2 kHz
SENSITIVITY: 1 W, 1 m	103 dB SPL	99 dB SPL
NOMINAL IMPEDANCE	4 ohms	8 ohms
LF DRIVER(S)	2 x 381 mm (15 in)	2035H
HF DRIVER	1 x 2414H-C	2416-1
DIMENSIONS	1100 x 640 x 450 mm	765 x 651 x 292 mm
(H x W x D)	43.5 x 25.2 x 17.75 in	30.125 x 25.625 x 11.5 in
NET WEIGHT (EACH)	46 kg (101 lb)	39 kg (85 lb)

<sup>1</sup> IEC filtered random noise (50 Hz - 5kHz) with a crest factor (peak to average ratio) of 6 dB.

### **Spatially Cued Surrounds**

## key features

### SCS 8

- 250 WATT POWER HANDLING
- 120° x 120° CONSISTENT BROADBAND PATTERN CONTROL
- OVERLOAD PROTECTION

### SCS 12

- 400 WATT POWER HANDLING
- EXTRAORDINARY CLARITY SURROUND WITH EXTENDED FREQUENCY RESPONSE
- HIGH POWER PASSIVE CROSSOVER NETWORK



### SCS 8

**The SCS 8** is a two-way, full range cinema surround loudspeaker ideal for multi channel surround formats for medium sized auditoriums. The SCS 8 is comprised of a high-power coaxial 203 mm (8 in) low frequency driver and a 25 mm (1 in) high frequency compression driver.



### SCS 12

**The SCS 12** is a two-way, full range, high power cinema surround loudspeaker ideal for multi channel surround formats and is designed for overhead installation as well as for the standard on-wall installations. The SCS 12 is comprised of a high power coaxial 305 mm (12 in) low frequency driver and a 25 mm (1 in) high frequency compression driver.

### Specific 3c5 8 On S FREQUENCY RANGE 70 Hz - 20 kHz (-10 dB)

FREQUENCY RESPONSE POWER CAPACITY <sup>1</sup> COVERAGE PATTERN CROSSOVER FREQUENCY SENSITIVITY: 1 W, 1 m NOMINAL IMPEDANCE DRIVER: LF HF DIMENSIONS (H x W x D)

NET WEIGHT (EACH)

SCS 12

90 Hz - 20 kHz (± 3 dB) 250 W 120° x 120° 2.1 kHz 91 dB SPL 8 ohms 203 mm (8 in) 25 mm (1 in) 300 x 300 x 305 mm 11.8 x 11.8 x 12 in (enclosure) 359 mm (14.2 in) depth with bracket 9.8 kg (21.5 lb) 55 Hz - 20 kHz (-10 dB) 70 Hz - 20 kHz (± 3 dB) 400 W 90° x 90° 1.8 kHz 94 dB SPL 8 ohms 305 mm (12 in) 25 mm (1 in) 402 x 402 x 445 mm 15.8 x 17.5 in (enclosure) 542 mm (21.4 in) depth with bracket 15.9 kg (35 lb) 18.9 kg (41.5 lb) with U-bracket

<sup>1</sup> IEC standard, full bandwidth pink nowise with a 6 dB crest factor.

Section:

### SURROUND SYSTEMS

## key features • Designed For SMALL, MEDIUM, LARGE AND VERY LARGE VENUES

### **Surround Systems**

- 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

8350

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.

STROVES

**IH** 

8320 FREQUENCY RANGE FREQUENCY RESPONSE

**POWER CAPACITY**<sup>1</sup> COVERAGE ANGLES (H x V) **CROSSOVER FREQUENCY:** SENSITIVITY: 1 W, 1 m NOMINAL IMPEDANCE DRIVERS: LF HF DIMENSIONS (H x W x D) NET WEIGHT (EACH)

50 Hz - 20 kHz (-10 dB) 65 Hz - 18 kHz (± 3 dB) 150 W 100° x 90° 3 kHz 94 dB 8 ohms 203 mm (8 in) 25 mm (1 in) 406 x 343 x 224 mm 16 x 13.5 x 8.8 in 5 kg (11 lb)

8340A 45 Hz - 18 kHz (-10 dB) 70 Hz - 16 kHz (± 3 dB) 250 W 100° x 80° 2.2 kHz 96 dB 8 ohms 254 mm (10 in) 25 mm (1 in) exit 457 x 457 x 260 mm 18 x 18 x 10.25 in 8.6 kg (19 lb)

75 Hz - 17 kHz (± 3 dB) 350 W 100° x 80° 1.4 kHz 99 dB 8 ohms 254 mm (10 in) 25 mm (1 in) exit 457 x 457 x 260 mm 18 x 18 x 10.25 in 9.5 kg (21 lb)

60 Hz - 19 kHz (-10 dB)

<sup>1</sup> 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

### 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 (14<sup>1</sup>/2"), true JBL performance and a surprising price.

### 4181

The JBL 4181 system is a cost effective, 500 watt subwoofer system featuring an advanced technology 460 mm (18 in) low frequency transducer mounted in a direct radiator, bassreflex enclosure. It's Ideal for low frequency augmentation of digital sountracks.

### 3635 FREQUENCY RANGE (-10 dB) 28 Hz - 500 Hz

38 Hz - 100 Hz 300 W

100 Hz

100 dB

8 ohms 2042H (18 in)

1168 x 651 x 368 mm

46 x 25.625 x 14.5 in

51 kg (113 lb)

FREQUENCY RESPONSE (± 3 dB) **POWER CAPACITY CROSSOVER FREQUENCY** SENSITIVITY: 1 W, 1 m NOMINAL IMPEDANCE LF DRIVER(S) DIMENSIONS (H x W x D) NET WEIGHT (EACH)

### 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 lowfrequency augmentation when smooth response down to the lowest audible frequencies is required. An outstanding performer! The 4642A is THX® approved. Also available with grilles.

4181	4641	4642A	4645C
28 Hz - 500 Hz (no EQ)	25 Hz - 500 Hz	22 Hz - 500 Hz	To 22 Hz (no EQ)
40 Hz - 100 Hz (no EQ)	See individual spec sheet	See individual spec sheet	See individual spec sheet
500 W	600 W	1200 W	800 W
80 to 150 Hz	80 to 150 Hz	80 to 100 Hz	80 to 100 Hz
99 dB (40 - 100 Hz)	97 dB (40 - 100 Hz)	101 dB SPL	97 dB (40 - 100 Hz)
8 ohms	8 ohms	4 ohms	8 ohms
457 mm (18 in)	2241H (18 in)	2 x 2241H (18 in)	2242H (18 in)
1100 x 640 x 450 mm	990.6 x 647.7 x 450 mm	762 x 1219 x 610 mm	990.6 x 647.7 x 450 mm
43.3 x 25.2 x 17.75 in	39 x 25.5 x 17.75 in	30 x 48 x 24 in	39 x 25.5 x 17.75 in
50 kg (109 lb)	60 kg (131 lb)	98 kg (216 lb)	63 kg (138 lb)

### 4645C

Approved by THX<sup>®</sup>, 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<sup>™</sup> (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 lowfrequency augmentation.

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2450H/J

## **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.



### **25 mm - 1" EXIT COMPRESSION DRIVER** (44 mm - 1<sup>3</sup>/4" Diaphragm)

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

### 38 mm - 1<sup>1</sup>/2" EXIT COMPRESSION DRIVER (100 mm - 4" Diaphragm)

The 38 mm exit on the **2451H/J** compression driver allows the Coherent Wave<sup>™</sup> phasing plug to directly couple with Optimized Aperture<sup>™</sup> Bi-Radial<sup>®</sup> 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 twothirds 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.

Ĭ	specific	ation	Saacill	22411	22.4211	
	Specific	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 <sup>1</sup>	600 W <sup>1</sup>	600 W <sup>1</sup>	800 W <sup>1</sup>	
	SENSITIVITY: 1 W, 1 m	95 dB SPL <sup>2</sup>	97 dB SPL <sup>2</sup>	98 dB SPL <sup>2</sup>	99 dB SPL <sup>2</sup>	
7	FREQUENCY RANGE (-10 dB)	45 Hz - 3.5 kHz	30 Hz - 2.5 kHz	30 Hz - 3 kHz	25 Hz - 1.6 kHz	CHILL PROPERTY
	HIGHEST CROSSOVER	1500 Hz	1200 Hz	800 Hz	1.0 kHz	2242H
	VOICE COIL DIAMETER	102 mm (4 in)	102 mm (4 in)	102 mm (4 in)	102 mm (4 in)	
	VOICE COIL MATERIAL	Edgewound aluminum ribbon	Edgewound aluminum ribbon	Edgewound aluminum ribbon	Edgewound aluminum ribbon	<sup>1</sup> AES standard (50 - 500 Hz) <sup>2</sup> Based on a swept 100 to 500 Hz signal. 1 W is 2.83 V @ 8 ohms, 4.0V @ 16 ohms.
	HALF SPACE REFERENCE EFFICIENCY	2.5%	3.3%	2.9%	4%	<sup>3</sup> Based on standard IEC 268-1
	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)	<sup>4</sup> Based on a swept 500 Hz to 2.5 kHz signal.
		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 <sup>1</sup>	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	110 dB <sup>2</sup>	111 dB <sup>2</sup>	111 dB <sup>2</sup>		
	(Averaged)	(1 kHz - 4 kHz)	(500 Hz - 2.5 kHz)	(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 <sup>3</sup> /4 i n ) Pure titanium	102 mm (4 in) Pure titanium	102 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)	<sup>1</sup> 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.	
	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)	<sup>2</sup> Sensitivity measure	ed on a horn with a Q of 6.3.

### VGC<sup>™</sup> 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<sup>™</sup> SERIES CONE TRANSDUCERS Low-frequency Maximum Output Transducers MODEL: 2242H

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

### LOUDSPEAKER COMPONENTS

### Horns



#### **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<sup>™</sup> performance.



HORN/DRIVER **MOUNTING SYSTI** MODELS: 2509A

The 2509 Professional Mounting Bracket is designed to facilitate easy installations and guick 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.

2509A

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.

#### 2352 tions THROAT SIZE 38 mm (1 ½ in)

ACCEPTS JBL DRIVERS NOMINAL DISPERSION DIRECTIVITY FACTOR (Q) (Averaged) DIRECTIVITY INDEX (DI) (Averaged) **USABLE LOW FREQ. LIMIT** MIN. RECOMMENDED CROSSOVER **AXIAL PRESSURE SENSITIVITY**<sup>1</sup> CONSTRUCTION MOUTH: HEIGHT WIDTH LENGTH

NET WEIGHT (each)

2447H/J, 2451H/J 90° H x 40° V 13 (630 Hz - 20 kHz) 11 (630 Hz - 20 kHz) 500 Hz 500 Hz @ 18 dB/oct min. 112 dB Fiberalass reinforced plastic 457 mm (18 in) 559 mm (22 in) 254 mm (10 in) 2.2 kg (6 lb)

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



THROAT SIZE ACCEPTS JBL DRIVERS NOMINAL DISPERSION DIRECTIVITY FACTOR (Q) (Averaged) **DIRECTIVITY INDEX (DI)** (Averaged) **USABLE LOW FREQ. LIMIT** MIN. RECOM. CROSSOVER **AXIAL PRESSURE SENSITIVITY 1** CONSTRUCTION

> MOUTH: HEIGHT WIDTH LENGTH NET WEIGHT (each)

25 mm (1 in) 2426H/J 90° H x 40° V 12.2 (1 kHz - 16 kHz) 10.9 (1 kHz - 16 kHz) 500 Hz 630 Hz 110 dB High density solid polyurethane 173 mm (6.81 in) 445 mm (17.5 in) 174 mm (6.84 in) 1.4 kg (3 lb)

2370A

49 mm (2 in) 2446H/J, 2450H/J, 2485J 90° H x 40° V 107 (1 kHz - 16 kHz) 10.3 (1 kHz - 16 kHz) 400 Hz 500 Hz 112 dB Molded structural foam 279 mm (11 in) 445 mm (17.5 in) 236 mm (9.28 in) 2.2 kg (6 lb)

2380A

2382A 49 mm (2 in) 2446H/J, 2450H/J, 2485J 120° H x 40° V (630 Hz - 20 kHz) 79 (500 Hz - 16 kHz) 400 Hz 500 Hz 110 dB Molded structural foam 279 mm (11 in) 445 mm (17.5 in) 236 mm (9.28 in) 1.62 kg (3.5 lb)

49 mm (2 in) 2446H/J, 2450H/J, 2485J 60° H x 40° V 19 (1 kHz - 16 kHz) 12.8 (1 kHz - 16 kHz) 400 Hz 500 Hz 114 dB Molded structural foam 279 mm (11 in) 445 mm (17.5 in) 236 mm (9.28 in) 2.2 kg (6 lb)

2385A

<sup>1</sup> 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.