CONE TRANSDUCERS & COMPRESSION DRIVERS

HIGH QUALITY COMPONENTS FROM JBL

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.

2206H, 2226H/J, 2241H

VGC™ SERIES CONE 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 reduction of overall driver weight and a significant reduction in harmonic distortion.

2242H

SVG™ SERIES CONE TRANSDUCERS

Incorporates JBL's patented Super Vented Gap™ technology for improvement in power handling capability while minimizing power compression.

2426H/J

25MM 1" EXIT COMPRESSION DRIVER

Incorporates JBL's titanium diamond diaphragm for ruggedness and outstanding frequency response.

2451H/J

38MM 1.5" EXIT COMPRESSION DRIVER

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.

2450H/J

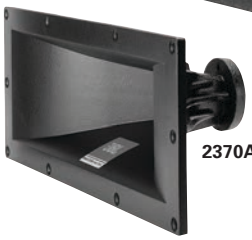
49MM 2" EXIT COMPRESSION DRIVER

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.

HORNS & ACCESSORIES

HIGH QUALITY COMPONENTS FROM JBL

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



2370A

2382A

2509A

2352

OPTIMIZED APERTURE™ MID-SIZE BI-RADIAL® HORN

The Optimized Aperture Mid-Size Bi-Radial Horns 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.

2370A, 2380A, 2382A, 2385A

FLAT-FRONT BI-RADIAL® HORNS

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.

2509A

HORN/DRIVER MOUNTING SYSTEM

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.

SUBWOOFER LINE

HIGH POWER SUBWOOFER

for professional use.

- Recommended for use as a subwoofer in a bass reflex or horn loaded cabinets.
- Capabilities: High power handling, Large linear excursion.
- Bandpass extension into the very low frequency zone.
- High power output with low distortion.
- Magnetic assembly was designed with Finite Element Analysis (FEA) for precise utilization and distribution of the magnetic field.
- Double poly-cotton spider for precise centering and increased linear displacement of the cone & coil.

COMPONENTS
LINE

- 4" diameter spun laced fiberglass former withstands high temperatures and is mechanically strong.
- Cone is reinforced with non pressed synthetic fibers that greatly improve mechanical stability during large excursions.
- Fabric surround treated with rubberized materials for greater durability, better damping, and reduced standing waves.
- Exclusive MCS™ - Multi Cooling System for high SPL with less power compression.
- Die-cast Aluminum frame is durable and made to perform.
- High strength structural adhesives combined with materials that have good thermal resistance increase durability and reliability.

	SPECIFICATIONS							
MODEL	**15SWS800**	**15SWS1000**	**15SWS1100**	**15SWS1200**	**18SWS800**	**18SWS1000**	**18SWS1100**	**18SWS1200**
Diameter	15"	15"	15"	15"	18"	18"	18"	18"
Impedance (Ω)	8	8	8	8	8	8	8	8
RMS (W)	800	1,000	1,100	1,200	800	1,000	1,100	1,200
Musical Program (W)	1,600	2,000	2,200	2,400	1,600	2,000	2,200	2,400
SPL 1W @ 1m (dB)	93	95	95	95	95	96	97	96
Frequency Resp. @ -10dB (Hz)	35 to 1,500	38 to 2,000	35 to 3,500	40 to 20,000	30 to 1,500	37 to 2,000	30 to 3,000	37 to 20,000
Resonance (Hz)	37	36	37	41	32	37	34	35
Voice Coil diameter in. (mm)	4 (100)							
Voice Coil	4 Layer Cu	4 Layer Al	Edge wound Al	4 Layer Al	4 Layer Cu	4 Layer Al	Edge wound Al	4 Layer Al
Magnet Weight oz. (g)	120 (3,400)			121.34 (3,400)	120 (3,400)	120 (3,400)	120 (3,400)	121.34 (3,440)
Basket	Die cast aluminum with epoxy finish							

12MB3P

10MB3P

MIDBASS LINE

MIDBASS EFFICIENT

- For midbass cabinets that require high power handling, efficiency, high fidelity, and low distortion.
- Extremely versatile these speakers can be used in two-way, three-way and line array systems.
- Magnet structure was designed with Finite Element Software (FEA) so that the magnetic field was optimized and evenly distributed. The 12" model has a copper shorted turn on the pole piece to lower distortion and extended the upper frequency response.
- Specially treated paper cone is reinforced with special fibers making it lighter, stronger and better sounding in the midbass.

COMPONENTS LINE

- Edge treated surrounds are either accordion or m-roll style to increase linearity during large excursions. Added advantages include the reduction of standing waves and improved acoustic coupling.
- Efficient venting cools the voice coil which reduces power compression, increases reliability and raises maximum SPL.
- Low profile die cast aluminum frame is easer to install in smaller, shallower and horn loaded enclosures.
- High temperature structural adhesives form a material bond with high sheer strength greatly improving the durability and reliability of the product.

	SPECIFICATIONS		
MODEL	**8MB4P**	**10MB3P**	**12MB3P**
Diameter	8"	10"	12"
Impedance (Ω)	8	8	8
RMS (W)	250	300	500
Musical Program (W)	500	600	1,000
SPL 1W @ 1m (dB)	97	100	101
Frequency Resp. @ -10dB (Hz)	80 to 5,000	150 to 12,000	90 to 4,000
Resonance (Hz)	105	80	61
Voice Coil Diameter in.(mm)	1.8 (47)	3 (75)	2.4 (61)
Voice Coil	Kapton®/Aluminum		
Magnet weight oz.(g)	45 (1,280)	91 (2,570)	93 (2,640)
Frame Material	Die cast aluminum with epoxy finish		

Kapton® - Trademark DuPont

6W4P

8W4P

MIDBASS LINE

W4P

• Recommended for use in systems that require flat frequency response with extended range from the midbass to the upper midrange.

• An excellent choice when small unobtrusive speakers are called for in houses of worship, hotels, schools, clubs, restaurants and retail localizations.

• Durable copper voice coil on Kapton® is large enough to handle a lot of power but light enough for extended frequency response.

• Special resins are used to treat the long fiber paper cone increasing strength and improving sound quality.

• Cloth (8") and foam (6") half roll surrounds are treated to improve stability during high excursions, increase acoustic coupling and help dampen standing waves.

• Stamped steel epoxy coated frame is resistant to oxidation and won't bend even under harsh conditions.

COMPONENTS
LINE

	SPECIFICATIONS	
MODEL	**6W4P**	**8W4P**
Diameter	6"	8"
Impedance (Ω)	8	8
RMS (W)	100	150
Musical Program (W)	200	300
SPL 1W @ 1m (dB)	91	96
Frequency Resp. @ -10dB (Hz)	80 to 9,000	100 to 6,500
Resonance (Hz)	76	107
Voice Coil Diameter in.(mm)	1.3 (32)	1.8 (47)
Voice Coil	Kapton®/Copper	
Magnet weight oz.(g)	20 (560)	44 (1,240)
Frame Material	Stamped steel epoxy finish	

Kapton® - Trademark Du Pont

12SW600

15SW600

18SW600

WOOFER LINE

WS

• Recommended for smaller low frequency cabinets where high power handling, seamless linearity and low distortion sound is required.

• Ideal for touring and fixed installations. Recommended for use in sidefill and stage monitor speakers.

• Magnet assembly design optimized by finite element software (FEA) to improve the control of the flux in the gap.

• Double spiders control the alignment of the cone during high excursions.

• 4" diameter Copper voice coil on a high temperature Kapton® former for increased power handling and structural durability.

COMPONENTS LINE

• Composite cellulose cone that is reinforced with long synthetic fibers improves mechanical stiffness, damping, and reduces standing waves.

• Efficient vented cooling system reduces power compression and improves efficiency.

• High temperature structural adhesives permanently bonds components increasing durability and reliability.

	SPECIFICATIONS			
MODEL	**12WS600**	**15WS600**	**18WS600**	**15WS700**
Diameter	12"	15"	18"	15"
Impedance (Ω)	8	8	8	8
RMS (W)	600	600	600	700
Musical Program (W)	1,200	1,200	1,200	1,400
SPL 1W @ 1m (dB)	95	97	98	98
Frequency Resp. @ -10dB (Hz)	45 to 3,000	40 to 3,500	35 to 3,000	50 to 4,5000
Resonance (Hz)	46	35	33	37
Voice Coil Diameter in. (mm)	4 (100)			
Magnet Weight oz.(g)	94 (2,700)	94 (2,700)	94 (2,700)	121.34 (3440)
Frame Material	Die cast aluminum with epoxy finish			

Kapton® - Trademark Du Pont

10CV5

12CV5

15CV5

WOOFER LINE

CV5

• Professional woofer, recommended for mid and low frequencies reinforcement and designed to meet the most diverse needs, ideal for mobile units or in environments such as auditoriums, ballrooms and nightclubs.

• The high efficiency in sound reproduction is due to the excellent combination of its components.

• The paper cone reinforced with long fibers, provides the array great stability, high yield and low distortion.

• The voice coil is made of a very resistant to high Temperatures wire and winding in Kapton former ®.

COMPONENTS LINE

• Frame in reinforced steel and epoxy paint gives the set high strength and mechanical structure.

• The aluminum cap ensures a perfect heat dissipation that comes from the voice coil.

• The use of high strong adhesive guarantees an optimal cohesion and durability to the components.

	SPECIFICATIONS		
MODEL	**10CV5**	**12CV5**	**15CV5**
Diameter	10"	12"	15"
Power (W)	100 W	150 W	150 W
Musical Program (W)	250 W	350 W	400 W
SPL (dB)	91 dB 1W @ 1m (dB)	97 dB 1W @ 1m (dB)	99 dB 1W @ 1m (dB)
Frequency Resp	65Hz ~ 5500 KHz	70Hz ~ 5000 KHz	70Hz ~ 4000 KHz
Resonance (Hz)	80 Hz	70 Hz	70 Hz
Voice Coil diameter	32 mm	46 mm	46 mm
Magnet Weight (g)	440 g	560 g	920 g
Impedance	8 Ω		
Die cast	Aluminum with epoxy finish		

8PW7

15PW6

15PW7

WOOFER LINE

PW

• Recommended for use in small and medium-size venues where high performance reproduction of the critical midrange frequencies and low frequencies are desired.

• The right choice for two way loudspeakers that are used for sound reinforcement in auditoriums, ballrooms, nightclubs, and live music stages.

• Precision wound copper voice coil is bonded to a Kapton® former and coated so that it holds it's structural shape under high power conditions.

• Paper cone reinforced with long fibers is specially treated to ensure faithful reproduction and tone in the voice band.

• Accordion edge fabric surround is specially treated to reduce fatigue and lower distortion.

• Aluminum dust cap dissipates heat from the voice coil improving power handling and reducing power compression. No aluminum dust cap on (8PW7, 10PW7, 12PW7, and 15PW7).

• Mechanically strong and weather resistant epoxy coated stamped steel frame.

COMPONENTS LINE

	SPECIFICATIONS				
MODEL	**8PW7**	**10PW7**	**12PW7**	**15PW7**	**15PW6**
Diameter	8"	10"	12"	15"	15"
Impedance (Ω)	8	8	8	8	8
RMS (W)	140	150	250	300	400
Musical Program (W)	300	300	500	600	800
SPL 1W @ 1m (dB)	93	95	95	97	97
Frequency Resp. @ -10dB (Hz)	70 to 8,000	60 to 4,000	40 to 4,500	40 to 4,500	60 to 4,000
Resonance (Hz)	79	67	42	43	37
Voice coil Diameter in.(mm)	1.3 (32)	1.8 (46)	2.4 (60)	2.4 (60)	3 (75)
Magnet Weight oz. (g)	20 (560)	32 (920)	46 (1300)	46 (1300)	86 (2440)
Frame Material	Stamped steel with epoxy finish				

D200

D250-X

D305

D405

COMPRESSION DRIVER

PHENOLIC

- Recommended for midrange applications in multi-way PA's, stage monitors, side fills and high SPL car audio systems.
- High sensitivity, low distortion and smooth response.
- Precisely formed phenolic diaphragm produces high fidelity sound through out the midrange.
- Diaphragm voice coil is bonded to Kapton™ with high temperature adhesives to increase durability and raise power handling.
- "Phase Plug" is an acoustic transformer with optimized geometry to reduce phase cancellations.

COMPONENTS LINE

- Magnetic Fluid in the gap (models D305 and D405) helps center the coil, improves heat dissipation, and reduces distortion.
- Quick change drop in diaphragm for easy repair.

	SPECIFICATIONS			
MODEL	**D200**	**D250-X**	**D305**	**D405**
Throat diameter	1"		2"	
impedance (Ω)	8			
RMS (W)	50(1)	100(2)	75(2)	100(2)
Musical Program (W)	100	200	150	200
SPL 1W @ 1m (dB)	107	107	110	110
Frequency Resp. @ -10dB (Hz)	500 to 7.000	400 to 9.000	400 to 9.000	300 to 7.000
Rec. a 12 dB/8ª (Hz)	500	500	500	
Voice coil diameter in(mm)	51	51	75	100
Magnet weight oz.(g)	290	332	1.600	2.640
Housing material	Plastic	Aluminum	Plastic	
Horn connection	Screw on		Bolt on	

(1) Xover 1.200Hz 12dB/oct (2) Xover 2.000Hz 12dB/oct

D202Ti

D220Ti

D3305Ti

D4400Ti

COMPRESSION DRIVER

TITANIUM

- Recommended for use in high performance compact, two-way, multi-way and line array systems.
- For use in sound reinforcement, side fill and stage monitor loudspeakers.
- World class drivers with excellent performance.
- High sensitivity and linear frequency response.
- Pure TITANIUM Diaphragm is accurately shaped to produce high frequencies with clarity.
- Innovative IPF® - Impregnated Polymer Fiber (model D3305Ti) diaphragm surround reduces ringing and makes the high frequencies more linear.

COMPONENTS LINE

- DPD® - Driver Protection Device protection circuit (model D3305Ti), protects the compression driver by reducing the input power during clipping and overload conditions.
- Precisely designed “Phase Plug” is an acoustic transformer that helps prevent phase cancellations.
- Copper shorting ring on the pole piece reduces the modulation of the magnetic field, lowers distortion and increases high frequency output.
- Magnetic Fluid in the gap (model D3305Ti) lowers distortion, helps to center the voice coil and wicks away heat.
- Repair of the driver is easy because the quick change diaphragm indexes to center and has a unique gold-plated contact system (model D3305Ti).

	SPECIFICATIONS						
MODEL	**D202Ti**	**D220Ti**	**D220Ti OMF**	**D3305Ti DPD**	**D409Ti**	**D405Ti**	**D4400Ti**
Throat diameter	1″			2″			
Impedance (Ω)	8						
RMS (W)	60[1]	80[1]		75[2]	150	125[3]	125[3]
Musical Program (W)	120	160		150	300	250[3]	250[3]
SPL 1W @ 1m (dB)	106	109		108	111	109	112
Frequency Resp. @ -10dB (Hz)	1,000 to 20,000	1,000 to 21,000		500 to 20,000	400 to 20,000	400 to 18,000	400 to 20,000
Rec. X-over, 12dB/oct min. (Hz)	1,500			800		800	800
Voice coil diameter in (mm)	1.7 (44)			3(75)	4 (100)	4 (100)	4 (100)
Voice coil	Kapton®/CCAW			Kapton®/CCAW edgewound	CCAW	Kapton®/CCAW	
Magnet Weight oz.(g)	8 (210)	24 (675)		57(1,600)	93 (2,640)	93 (2,640)	121.34 (3,440)
Housing material	Plastic				Aluminum	Plastic	Aluminum
Horn connection	Screw on			Bolt on		Screw on	

(1) Xover 1.200Hz 12dB/oct (2) Xover 2.000Hz 12dB/oct

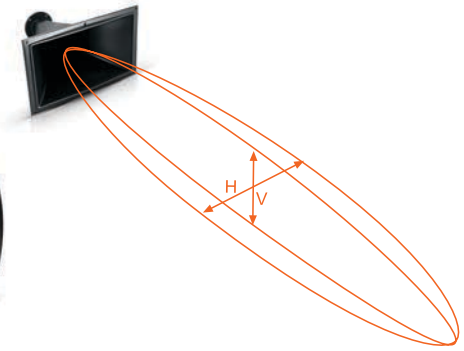
Kapton® - Trademark Du Pont

HL 14-25

HL 4750-SLF

HL 14-50N

SOUND DISPERSION



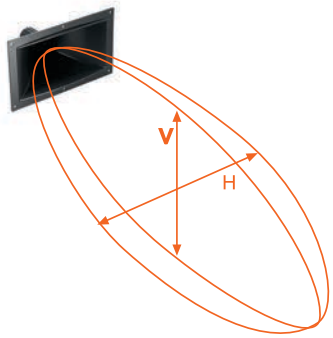
HORN LINE

LONG THROW

- Ideal for sound reproduction in small, medium and large-size environments.
- Several models available with different sound dispersion designed to fit almost any application.
- Optimized to increase directivity which raises max SPL, and to improve loading of the driver which magnifies efficiency.
- Designed to couple with Selenium drivers to produce high clarity sounds.

	SPECIFICATIONS		
MODEL	**HL 14-25**	**HL 14-50N**	**HL 4750-SLF**
Throat	1"	2"	2"
Material	Plastic	Aluminum	Fiberglass
Sound Dispersion HxV	45° x 45°	45° x 45°	40° x 20°
Low Frequency Limit. (Hz)	600	600	400
Driver Connection	Screw on	Bolt on	Bolt on
Width in. (mm)	6.1 (156)	6.1 (176)	17.5 (445)
Height in. (mm)	6.1 (156)	6.1 (165)	11 (280)
Length in (mm)	10.1 (258)	5.1 (134)	13.8 (352)

SOUND DISPERSION



HORN LINE

MEDIUM AND SHORT THROW

- Ideal for sound reproduction in small, medium and large-size environments.
- Several models available with different sound dispersion designed to fit almost any application.
- Optimized to increase directivity which raises max SPL, and to improve loading of the driver which magnifies efficiency.
- Designed to couple with Selenium drivers to produce high clarity sounds.

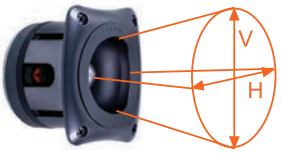
	SPECIFICATIONS					
MODEL	**HM11-25**	**HM17-25**	**HM25-25**	**HM3950-SLF**	**HM4750-SLF**	**HC2325**
Throat	1"	1"	1"	2"	2"	1"
Material	Plastic	Plastic	Aluminum	Fiberglass		Plastic
Sound Dispersion HxV	60° x 60°	60° x 40°	90° x 60°	60° x 30°	90° x 40°	100° x 40°
Low Frequency Limit (Hz)	1,200	1,500	1,200	400	400	600
Driver Connection	Screw on	Screw on	Screw on	Bolt on	Bolt on	Screw on
Width in (mm)	4.5 (115)	6.3 (160)	10.8 (274)	15.3 (390)	17.5 (445)	10 (254)
Height in (mm)	4.5 (115)	5.7 (145)	6.5 (164)	8.1 (206)	11.4 (290)	5 (128)
Length in (mm)	3 (75)	4.1 (103)	5.9 (151)	9.2 (234)	8.3 (210)	5.7 (145)

ST350

ST400BLK

ST304

SOUND DISPERSION



SUPER TWEETER LINE

ST

- Ideal super tweeter when the reproduction of high frequencies must define the instruments.
- Recommended for PA systems, stage monitors and most sound reinforcement systems in general.
- Extremely high sensitivity and lower distortion.
- The geometry of the magnetic circuit was optimized with Finite Element Analysis (FEA) in order to efficiently utilize and distribute the magnetic field in the gap.

COMPONENTS LINE

- The Phenolic diaphragms ability to hold it's shape is key to the production of high fidelity, high frequency sound.
- Durability of the super tweeter is increased by using a high temperature voice coil that's bonded to a Kapton® former.
- Components are bonded with high temperature structural adhesives to increase durability and improve reliability.
- Easy diaphragm replacement for faster repairs.

	SPECIFICATIONS				
MODEL	**ST200**	**ST304**	**ST350**	**ST400 BLK**	**ST302-X**
Impedance (Ω)	8	8	8	8	8
RMS (W)	70(1)	40(2)	100(2)	150(2)	125(2)
Musical Program (W)	140	80	100(2)	150(2)	250
SPL 1W @ 1m (dB)	105	106	111	111	106
Frequency Resp. @ -10dB (Hz)	2,000 to 20,000	3,500 to 18,000	2,500 to 20,000	3,000 to 20,000	3,500 to 20,000
Voice Coil Diameter	1.8 (46)			1.7 (42)	1.8 (46)
Sound Dispersion HxV	40° x 40°		120° x 40°	40° x 40°	
Magnet weight	8 (220)	11 (320)	17 (470)	15 (430)	440
Diaphragm	Phenolic				
Housing material	Plastic				