

JBL S Y N T H E S I S[®]

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 Harman International

JBL

S Y N T H E S I S[®]



THE ONE THING THE WORLD'S PREMIER MOVIE THEATERS AND CONCERT HALLS HAVE OVER SYNTHESIS® SYSTEMS? MORE SEATS.

JBL Synthesis® home theater and music systems are designed and custom-installed to duplicate the electrifying performance characteristics of acclaimed venues like the Samuel Goldwyn Theater and the Sydney Opera House, but on a somewhat more intimate scale. Industrial-grade technologies, materials and engineering, from the most applauded professional brand, deliver systems of uncompromised power and authority for the homes of purists and enthusiasts, as well as film and music professionals, everywhere. As Synthesis owners and audio reviewers alike will tell you, more impressive and realistic residential sound systems can't be found anywhere, at any price.



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**SOPHISTICATED SYNTHESIS ELECTRONICS
PRECISELY MATCH THE PROGRAM MATERIAL
TO THE LISTENING SPACE.**

Synthesis electronic components employ the most advanced signal processors, equalizers and amplifiers to create the most realistic listening experience possible – in rooms of any size. Intelligent THX[®]-certified surround sound processors automatically configure themselves to optimize the impact of any CD, Blu-ray Disc[™] file or satellite signal. The patented JBL[®] Logic 7[®] matrixing system uses proprietary digital algorithms to improve the accuracy and timing of the signals arriving at center channel and surround sound speakers, creating a larger, nearly perfect 360-degree soundscape. SDEC digital equalization, tuned on-site by a JBL factory-certified audio expert, precisely calibrates your system's frequency response for the acoustical realities of your listening area. And high-current, ultrawide-bandwidth amplifiers ensure faithful reproduction of both explosive special effects and ethereal musical interludes.



WELCOME INSIDE

WHY SYNTHESIS SYSTEMS?



THE OPERA HOUSE, CONCERT HALL, Broadway stage, recording studio, mastering suite, movie sound mixing room...and your house. They all benefit from the same thing – the experience and expertise of Harman International in sound reproduction and reinforcement, and the ultimate expression of this is a JBL Synthesis system.

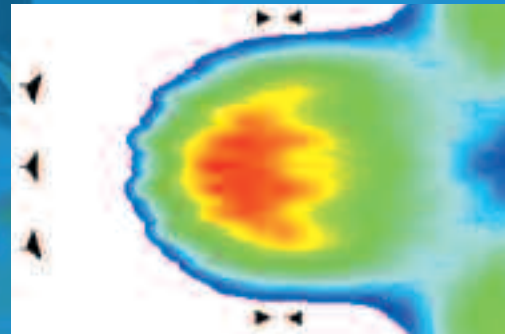


BUILT TO LAST. Professional-quality, durable components are built to the most demanding standards – overbuilt and tested in the most demanding situations. And if something should go wrong, all components are covered under the JBL Synthesis 48-hour warranty-replacement guarantee.

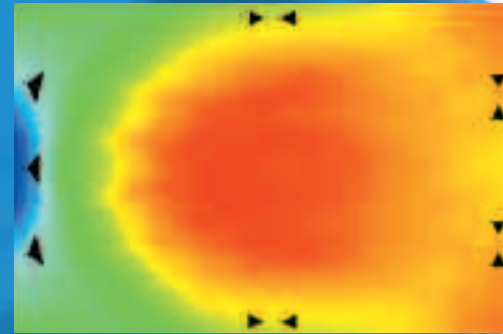
NO JOB TOO BIG OR TOO SMALL. There are no public venues that JBL Professional systems cannot fill with full-spectrum, high-output sound. And there are no private screening rooms or corporate boardrooms that cannot benefit from JBL expertise. Synthesis systems scale JBL Professional technologies – as well as proprietary technologies adapted directly from them – to deliver all the sonic volume that your room's cubic volume can safely contain, with all the realism music and movie professionals expect of JBL systems. In audiences of ten, or tens of thousands, it's the response of each individual listener that matters.

SYSTEMS, NOT JUST COMPONENTS. Custom-installed residential sound systems are highly complex, and many are comprised of separate components from multiple manufacturers. The manufacturers may be reputable, and the components highly rated, but the resulting system may be less than optimal for a variety of technical (and rarely obvious) reasons. Synthesis installations are comprised exclusively of best-in-class JBL components engineered to work together in tightly integrated systems. Synthesis surround processors are designed to operate seamlessly with Synthesis amplifiers and Synthesis equalizers. Synthesis loudspeakers are built to be driven by Synthesis amplifiers. Every Synthesis system is custom-designed based on room volume, and guaranteed to meet or exceed the professional specifications of the Society of Motion Picture and Television Engineers (SMPTE). Simply put, there are no systems from any manufacturer that perform as well in residential home theaters and media rooms, and in corporate and institutional projection and presentation rooms of virtually any size.

HOW SWEET IT IS. Logic 7 processing dramatically improves the balance and timing of loudspeaker signals to deliver the largest “sweet spot” of any home theater system available.



Small sweet spot without Logic 7 processing.

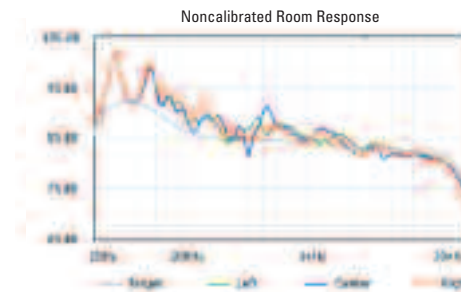


The far larger Logic 7 sweet spot.

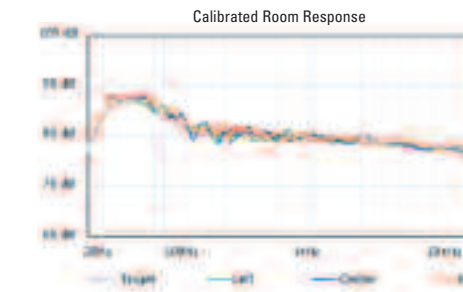
MORE REALISTIC SOUND FROM ANY SOURCE: LOGIC 7® PROCESSING.

IN ADDITION TO THE LATEST INDUSTRY-STANDARD sound processing, including Dolby® Digital, Dolby TrueHD, DTS-ES®, DTS-HD Master Audio™ and THX™ Surround EX™ technologies, all Synthesis systems include patented JBL Logic 7 processing, which offers two principal benefits. First, Logic 7 technology is capable of producing discrete 5.1- or 7.1-channel sound fields from the thousands of 2-channel sources still in widespread use today, making them sound truer to life. Second, Logic 7 processing produces a larger, more precise 360-degree soundscape from multichannel sources, greatly increasing a listening room’s “sweet spot.” With both Cinema and Music modes, Logic 7 processing ensures the fullest, most realistic sound possible, regardless of the source.

AND HOW SMOOTH. SDEC digital equalization, professionally tuned to the needs of your space, reduces unwanted room resonances to deliver far smoother frequency response.



Uneven frequency response caused by room resonances.

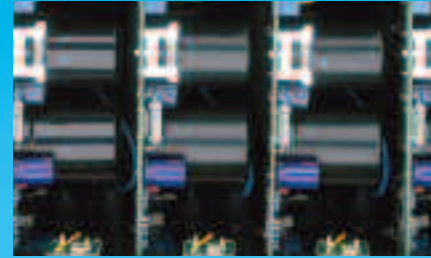


Smooth response with SDEC digital equalization.



PERFORMANCE FINE-TUNED TO YOUR SPACE: SDEC DIGITAL EQUALIZATION.

EVERY ROOM HAS DIFFERENT ACOUSTICS, and every room creates resonances that degrade frequency response. Synthesis systems use precise, distortion-free SDEC digital equalization to counteract unwanted resonances and improve system performance. Professionally calibrated by a JBL-certified technician at the time of installation, SDEC actually customizes your system to your room, for far smoother, more lifelike reproduction of any program material, while at the same time ensuring that all speakers within the system are matched to each other, creating perfectly matched speaker systems.



COMMANDING: HIGH-CURRENT CAPABILITY.

MANY OF TODAY'S MOST POPULAR FILMS rely on hyperrealistic, multilayered soundtracks – often spiked with unexpected bursts of over-the-top sound – for much of their emotional energy. Reproducing the full experience at home places enormous demands on system electronics. JBL Synthesis systems are powerful, of course, but they're also products of an overall design philosophy that emphasizes power handling. This high-current capability means that everything from the design of the transformers to the size of the capacitors is engineered for muscle, even during program peaks at high listening levels. So go ahead, turn up the volume. A Synthesis system is built to handle it.

CONSUMMATE: ULTRAWIDE BANDWIDTH.

THE HUMAN EAR IS CAPABLE of hearing sound in the range of 20Hz to 20kHz. But, of course, real-world sounds come in all frequencies, and reproducing them realistically requires systems with a far wider bandwidth. A JBL Synthesis system features amplifiers that operate in the ultrawide range of 10Hz to 100kHz. Bringing a new level of accuracy to both the lowest lows and the highest highs – at any listening level – Synthesis systems ensure that every nuance of recorded sound reaches your ears.



ELECTRONICS

SURROUND PROCESSING, SYSTEM CONTROL
AND AMPLIFICATION

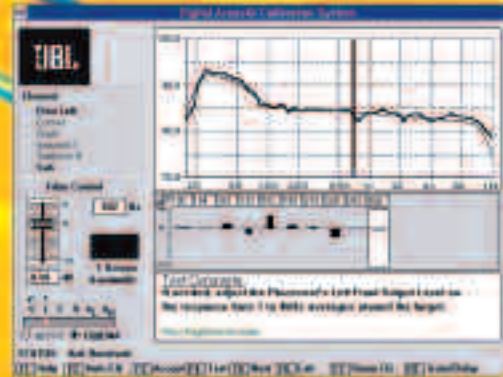
SURROUND PROCESSING AND SYSTEM CONTROL.



SDP-40HD: POWER AND CAPABILITY, DEFINED. Designed for the largest Synthesis theater installations as well as multiroom applications, the SDP-40HD digital surround processor/system controller offers eight analog audio inputs, six digital audio inputs, one 5.1-channel analog input, six HDMI™ inputs, three component inputs, three S-video inputs and two composite video inputs with 12 balanced and 12 unbalanced audio outputs, in addition to Zone 2 and Record Audio capabilities. There's also an RS-232 port for connection to control systems, as well as for future upgrades.

SDP-5: POWERFUL, FLEXIBLE, EXPANDABLE. The SDP-5 digital surround processor/system controller offers eight analog audio inputs, four coaxial and four optical digital audio inputs, five S-video inputs, five composite and three component video inputs with eight unbalanced audio outputs, plus both analog and digital Zone 2 outputs, for uncompromised performance in any Synthesis movie or music system. As on the SDP-40HD, the RS-232 port facilitates future upgrades.

JBL technicians use computer-based analysis instruments to fine-tune your system performance.

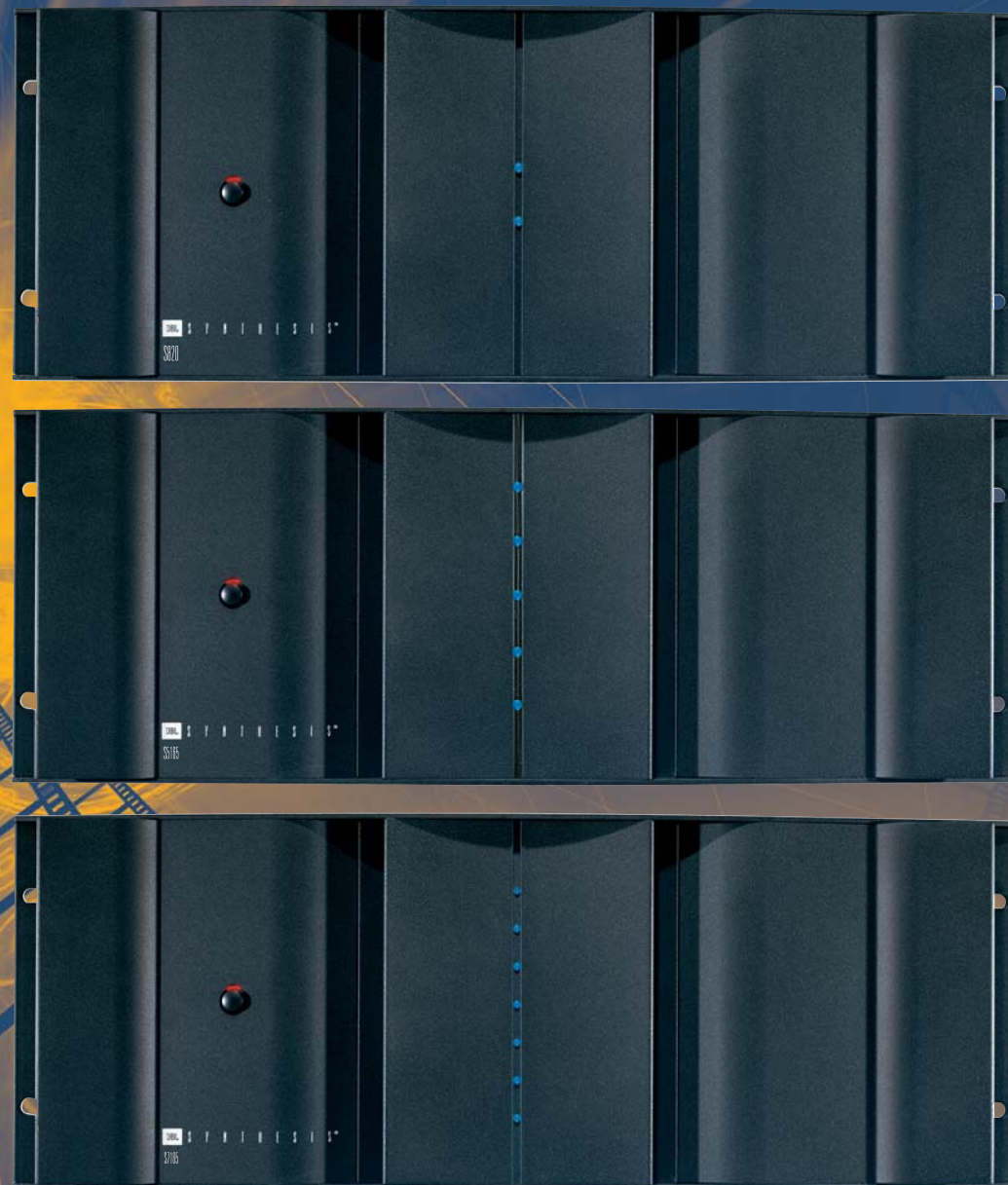


DIGITAL EQUALIZERS.

SDEC-3000: OPTIMIZED SYSTEM PERFORMANCE. Offering 8-channel input and 8-channel output with more than 120 bands of parametric EQ running at 24 bits and 96kHz, the SDEC-3000 digital equalizer custom-fits the acoustic needs of your listening space and takes the 7.1 surround-sound experience of your Synthesis system to new levels of performance, turning any home theater into a theater for your home.

SDEC-4500: CUSTOMIZING THE SYNTHESIS SOUND. With 4th-order electronic crossover networks for use with the bi-amplified speaker in the Synthesis One Array™ system or running full-range for the largest Everest, K2® and Atlas™ systems, the SDEC-4500 offers up to 12 channels of input and 20 channels of output with more than 256 bands of parametric EQ running at 24 bits and 96kHz, making this system better than anything you've ever heard at the cinema or theater.

Custom configurations for special needs can be created by JBL Synthesis engineers to suit any installation you can imagine.



POWER AMPLIFIERS.

S820: STRENGTH IN NUMBERS. Used in arrays of as many as 11 (capable of flooding rooms as large as 100,000 cubic feet with thundering sound), the 1 x 800-watt (mono-bridged)/2 x 200-watt (stereo) S820 power amplifier is the highest-current ultrawide-bandwidth workhorse of the Synthesis Series. Both balanced and RCA inputs enable use with any Synthesis processor.

S5165: 5TH TO NTH POWER. Let us do the math for you. Two 5 x 160-watt (at 8 ohms) S5165 power amplifiers, plus two 2 x 200-watt (at 8 ohms) S820 power amplifiers equals the breathtaking power of a Synthesis One Array system, designed for listening spaces of up to 25,000 cubic feet. Both balanced and RCA inputs enable use with any Synthesis processor.

S7165: THE SEVEN-CHANNEL SOLUTION. Delivering 7 x 160 watts of power, the S7165 power amplifier reproduces the full 360-degree imaging critical to enjoying the full impact of today's thrilling 7.1-channel THX Surround EX, Dolby Digital and DTS-ES soundtracks. Both balanced and RCA inputs enable use with any Synthesis processor.

Note: All JBL Synthesis amplifiers are designed with forced-air cooling so they can be "stacked" in standard 19" racks.

Synthesis components
have received the highest
THX certification.





LOUDSPEAKER

TECHNOLOGY



INNOVATIVE SYNTHESIS LOUDSPEAKER SYSTEMS take control of your emotions and never let go. For 60 years, JBL, Inc., has been the leading manufacturer of professional loudspeakers for recording artists and touring musicians, and, in a close collaboration with Lucasfilm® engineers, developed the underlying THX technologies, which set a new standard of realism in movie sound. JBL Synthesis loudspeaker systems represent, well, a synthesis of everything learned over the years about the precise reproduction of recorded sound. With horn-loaded compression drivers (an essential of cinema sound rarely heard in consumer systems), wide-dispersion titanium tweeters and high-definition crossover networks, Synthesis loudspeakers are among the most powerful and capable instruments ever to be used in home entertainment applications.

COMPRESSION DRIVERS. The Concorde may be retired, but supersonic performance lives on. Synthesis loudspeakers use advanced beryllium compression drivers capable of reproducing frequencies above 50kHz, delivering supersonic nuances that have gone unheard until now.

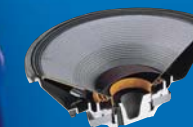
HORNS. In Hollywood, everyone hopes to direct someday. Synthesis Bi-Radial® horns (a patented JBL exclusive) achieve constant directivity, smoothly delivering midrange and high frequencies over a wider listening area, for an astonishingly clear, uncolored sound.

PERFECT (AND PERFECTLY LEGAL) HIGHS. Reproducing high frequencies accurately at high listening levels requires extremely light, extremely fast and extremely rigid transducer domes. Synthesis systems use pure-titanium-dome tweeters for pure, distortion-free treble.

RARE-EARTH AND OTHER UNCOMMON MAGNETS. Synthesis loudspeakers employ highly efficient magnetic circuits, built around neodymium and alnico magnets, to generate a high level of constant magnetic-flux density across the voice-coil gap of the transducers. (Subtitle: Synthesis drivers are quick enough to accurately reproduce any movie soundtrack or musical source in exquisite detail.)

HIGH-DEFINITION SOUND. Synthesis loudspeakers use unique JBL low-distortion Charge-Coupled Linear Definition™ crossover networks to distribute specific frequencies to each driver, minimizing phase shifts for optimal system performance and imaging, and eliminating crossover distortion.

A massive 18" subwoofer guarantees that soundtracks will come alive with movie theater-like impact.



Pure-titanium tweeters produce a spacious, dramatic, concertlike sound.



JBL horn-loaded compression drivers.



State-of-the-art crossover technology.





THE SYSTEMS



THREE PROJECT EVEREST DD66000's **EIGHT** SK2-1000's **FOUR** S1S-EX's



ONE SDP-40HD



ONE SDEC-4500



ELEVEN S820's

SYNTHESIS EVEREST:

THE HIGHEST PEAK IN AUDIO REDEFINED. Of those who seek perfection in sound reproduction, only a handful have actually achieved it. It is a rare occurrence when an individual or group is able to triumph over the constraints of technological reality just once. This rarity has occurred eight times in JBL history. In each case, JBL engineers were told to build the speaker system they had always wanted to build – whatever resources were required would be available. Thus began an ongoing investigation into new frontiers of sound reproduction, beginning in 1950 and continuing to the present day. The products that have resulted from this venture are now known as the JBL Project loudspeakers. Each represents the absolute peak of every technological, material and engineering innovation available at that time, combined into a single system. They are Hartsfield, Paragon, Project Everest DD55000, K2 S9500/7500, K2 S5500, K2 S9800 and K2 S5800. The newest is Project Everest DD66000. Three Project Everest DD66000 speakers in front of you, eight SK2-1000 surrounds and four 18" S1S-EX subwoofers, powered by no fewer than 11 S820 amplifiers, making it the highest-power, lowest-distortion, most realistic and inspiring JBL Synthesis system designed to date. Hearing is believing.



The S4Ai in-wall multipole ambient speaker can be used in place of the S1A for installations where an in-wall speaker is needed.

THE NAME IS AN UNDERSTATEMENT.



8800 WATTS RMS
17,600 WATTS PEAK
96dB HIGH FREQUENCY
96dB LOW FREQUENCY

FROM **3,500**
TO **100,000**
CUBIC FEET
99-2,832
CUBIC METERS

JBL SYNTHESIS EVEREST



THREE K2 S9800's **FOUR** S1S-EX's **SIX** S4Ai's

SYNTHESIS K2® SYSTEM:

FRONT AND CENTER, THE INTERNATIONAL AWARD-WINNING K2 S9800 is one of the most refined and spectacular JBL speakers ever created. Featuring beryllium high-frequency and ultrahigh-frequency compression drivers, and a specially designed Bi-Radial horn, the speakers are able to reproduce high frequencies beyond 40kHz, while a massive 15" woofer thunders down to below 45Hz. In short, the K2 S9800 is designed to produce extraordinary sonic accuracy. All around you are six S4Ai multipole ambient surround speakers, each with three 1" titanium tweeter, two 4" mid-bass drivers, and an 8" dual-voice-coil woofer. And from everywhere and nowhere, gloriously rich, clean bass pulsates from four S1S-EX 18," 800-watt subwoofers. In all, 13 exceptionally refined loudspeaker systems, driven by the SDP-40HD processor/controller, an SDEC-4500 digital equalizer and no fewer than 10 S820 amplifiers. A no-expense-spared entertainment system for listening rooms of up to 75,000 cubic feet, Synthesis K2 loudspeakers deliver up to 8000 watts of power and achieve sound-pressure levels well beyond 105dBA without distortion, making it second only to the JBL Synthesis Everest system as the highest-power, highest-performance, highest-quality system ever developed for residential use.



The S1A on-wall dipole ambient speaker can be used in place of the S4Ai for installations where an in-wall speaker is needed.



ONE SDP-40HD **ONE** SDEC-4500 **FIVE** S7165's **TEN** S820's

NO, YOU'RE NOT DREAMING.



8000 WATTS RMS
16,000 WATTS PEAK
94dB HIGH FREQUENCY
97dB LOW FREQUENCY

FROM **2,500**
TO **75,000**
CUBIC FEET
71-2,124
CUBIC METERS

JBL SYNTHESIS K2 SYSTEM



THREE SK2-1000's

TWO S1S-EX's

SIX S4Ai's



ONE SDP-40HD



ONE SDEC-4500



TWO S7165's



TWO S820's

SYNTHESIS ATLAS™ SYSTEM:

THE FRONT SOUNDSTAGE INCLUDES three SK2-1000 four-way speaker systems with dual 10" woofers, featuring beryllium midrange and ultrahigh-frequency compression drivers in a specially designed Bi-Radial combination horn, incorporating the most advanced JBL Professional technologies. Enveloping the listener, and invisible to the naked eye are six S4Ai multipole in-wall ambient surround speakers, each with three 1" titanium high-frequency tweeters, two 4" mid-bass drivers and one 8" dual-voice-coil woofer. Powerful, rich bass emanates from two S1S-EX 18" 800-watt subwoofers. The electronics package includes the SDP-40HD processor/controller, SDEC-4500 digital equalizer, and two S7165 (7 x 160 watts) and two S820 (1 x 800 watts) power amplifiers. Designed for listening rooms of up to 30,000 cubic feet.

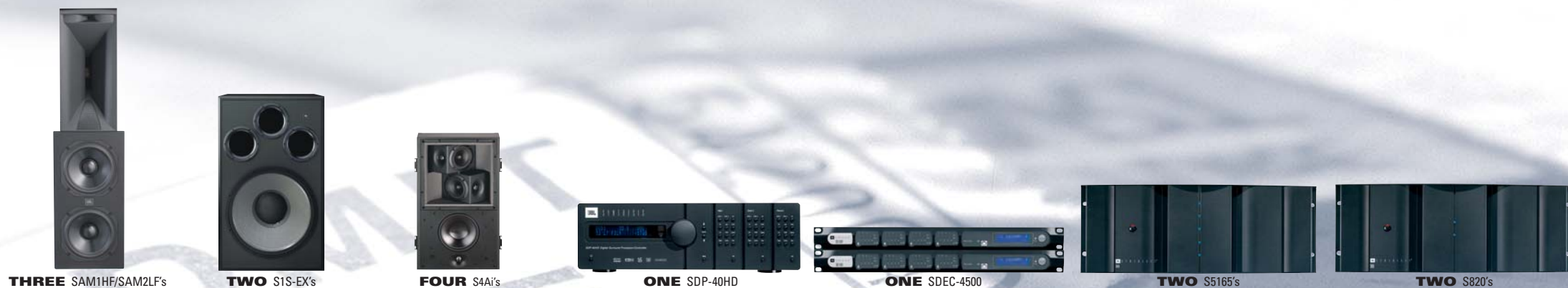
POWERFUL AUDIO IN A SUBTLE PACKAGE.



4120 WATTS RMS
8240 WATTS PEAK
94dB HIGH FREQUENCY
94dB LOW FREQUENCY

FROM **2,000**
TO **30,000**
CUBIC FEET
57-850
CUBIC METERS

**JBL SYNTHESIS
ATLAS SYSTEM**



THREE SAM1HF/SAM2LF's **TWO** S1S-EX's **FOUR** S4Ai's **ONE** SDP-40HD **ONE** SDEC-4500 **TWO** S5165's **TWO** S820's

SYNTHESIS ONE ARRAY™ SYSTEM: OVER-THE-TOP BI-AMPED PERFORMANCE.

BRINGING RAREFIED POWER AND UNEQUALED REALISM to listening areas of up to 25,000 cubic feet – and surpassing the highest expectations of the world’s most demanding listeners – the Synthesis One Array system pairs the dual 8" SAM2LF’s with the 3" compression driver/constant-directivity horn of the SAM1HF for a bi-amplified speaker system capable of frequencies from 80Hz to 40kHz from the front left, center or right; four S4Ai multipole ambient surrounds; and two S1S-EX 18," 800-watt subwoofers. With an electronics package that includes the SDP-40HD processor/controller, the SDEC-4500 active-crossover digital equalizer, two S5165 5-channel amplifiers and two S820 2-channel amplifiers, the Synthesis One Array system sets new standards of technological innovation and manufacturing quality, and delivers an unequalled listening experience. S4Ai in-wall multipole ambient speakers can be used in place of the S1A’s for installations where in-wall speakers are needed.

The SAM1HF and SAM2LF can be configured in these ways to create the perfect speaker for your room.



3600 WATTS RMS
7200 WATTS PEAK
98dB HIGH FREQUENCY
92dB LOW FREQUENCY

FROM 1,500 TO 25,000 CUBIC FEET
43-708 CUBIC METERS

JBL SYNTHESIS ONE ARRAY SYSTEM



THREE SAM1HF/SAM2LF's

TWO S2S's

FOUR S4Ai's

ONE SDP-5



THREE SAM12X's



ONE SDEC-3000



ONE S7165



ONE S820

SYNTHESIS TWO ARRAY SYSTEM:

IN SYNTHESIS TWO ARRAY SYSTEMS, THE MAIN LEFT, RIGHT AND CENTER SAM1HF AND SAM2LF loudspeakers feature dual 8" mid-bass drivers and reproduce high frequencies with a 3" Aquaplas-treated aluminum compression driver mounted in a vertical SonoGlass® constant-directivity horn, and ultrahigh frequencies with a 1" pure-titanium compression driver. Meanwhile, the SAM12X passive crossover manages all the power the S7165 can supply. Four S4Ai multipole in-wall ambient surround speakers, two S2S 15" subwoofers, and electronics that include an SDP-5 processor/controller, SDEC-3000 digital equalizer, S7165 7-channel amplifier and S820 2-channel amplifier round out the Synthesis Two Array system. It delivers all the realism of today's most sophisticated digital sources. And it's all the sonic muscle rooms up to 16,000 cubic feet can handle.

PASSIVE CROSSOVER DESIGN...ACTION!



1800 WATTS RMS
3600 WATTS PEAK
98dB HIGH FREQUENCY
92dB LOW FREQUENCY

FROM 1,500
TO 16,000
CUBIC FEET
43-453
CUBIC METERS

JBL SYNTHESIS
TWO ARRAY
SYSTEM

Upgrade your system by adding a second S820 and a second pair of S2S subwoofers, or move up to the ultimate in low-frequency sound with the Synthesis Two Array Plus, using a pair of S1S-EX subs for rooms of up to 18,500 cubic feet.



S2S

S1S-EX

S820



SYNTHESIS THREE ARRAY SYSTEM:

THE SYNTHESIS THREE ARRAY SYSTEM IS DESIGNED to give your architect or designer maximum leeway in creating your ideal listening space. The all-important center channel speaker, for example, is available in designs optimized for either vertical (SAM3VA) or horizontal (SAM3HA) installation. The main left and right SAM3VA speakers may be cabinet-/custom-mounted, or configured as freestanding floor units with two S2S powered subwoofers. Four S4Ai in-wall multipole in-wall ambient surround speakers and electronics that include the SDP-5 processor/controller, SDEC-3000 digital equalizer, S7165 7-channel amplifier and S820 amplifier complete a package that will fill rooms of up to 10,000 cubic feet with edge-of-your-seat home entertainment.

Alternatively, you can substitute the 1,000-watt powered HTPS-400 for the S2S subwoofer and fill rooms of up to 7,500 cubic feet. (The 110-volt HTPS-400 is replaced by the 14" PS1400 powered subwoofer in 230-volt markets.)



SMALL PACKAGE, BIG SOUND.



1800 WATTS RMS
3600 WATTS PEAK
87dB HIGH FREQUENCY
87dB LOW FREQUENCY

FROM 1,500
TO 10,000
CUBIC FEET
43-283
CUBIC METERS

**JBL SYNTHESIS
THREE ARRAY
SYSTEM**

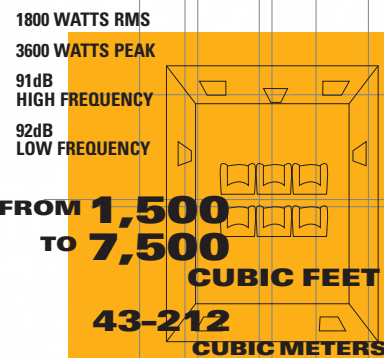


SYNTHESIS FOUR SYSTEM:

SYNTHESIS FOUR SYSTEMS OFFER YOU A CHOICE of ways to fill 7,500 cubic feet of space with dramatic, full-spectrum sound from compact system components. Begin with three-way, in-wall main loudspeakers (one S4HC and two S4VC's). Back them up with two S4S subwoofers and an S820 amplifier for an all-in-wall solution and four S4Ai in-wall multipole surrounds. Add the power of an SDP-5 processor/controller, SDEC-3000 digital equalizer and S7165 7-channel amplifier.



ULTIMATE IN-WALL DESIGN.



JBL SYNTHESIS FOUR SYSTEM

For rooms where the in-wall S4S is not used, the HTPS-400 can be substituted. (The HTPS-400 is replaced by the 14" PS1400 active subwoofer in 230-volt markets.)





TWO 1400 Arrays **ONE** 880 Array **TWO** 1500 Arrays **FOUR** S4Ai's

SYNTHESIS PROJECT ARRAY™ SYSTEM:

EXPOSED VERTICAL CONSTANT-DIRECTIVITY HORNS, for improved sonic accuracy at high listening levels, have long been a staple of JBL installations in concert venues around the world. The Synthesis Project Array™ system brings the concept home for the first time, with spectacular results. Two three-way floorstanding 1400 Array loudspeakers flank a three-way 880 Array center channel speaker and are supported by two 15," 1000-watt 1500 Array powered subwoofers and four S4Ai in-wall multipole surround speakers. Electronics include the SDP-5 processor/controller, SDEC-3000 digital equalizer and S7165 7-channel amplifier. Synthesis Project Array systems bring true concert-quality performance to rooms of up to 16,000 cubic feet.



ONE SDP-5 **ONE** SDEC-3000 **ONE** S7165

SYNTHESIS SOUND, FRONT AND CENTER.
















3120 WATTS RMS
4240 WATTS PEAK
90dB HIGH FREQUENCY
90dB LOW FREQUENCY

FROM 1,500 TO 16,000 CUBIC FEET
43-453 CUBIC METERS

JBL SYNTHESIS PROJECT ARRAY SYSTEM

SPECIFICATIONS.

														
DESCRIPTION	SAM1HF Synthesis® Array™ THX® Horn Module	SAM2LF Synthesis® Array™ THX® Dual 8" Low-Frequency Module	S1A Dipole Ambient Surround Speaker	S1S-EX THX® 18" Subwoofer	S2A Dipole Ambient Surround Speaker	S2S THX® 15" Subwoofer		SAM3VA THX® Vertical Center-Channel Loudspeaker	SAM3HA THX® Horizontal Center-Channel Loudspeaker	S4Ai THX® 2-Way/3-Way 8" Multipurpose Configurable-Array Flush-Mount Surround Loudspeaker – Dipole, Bipole and Direct-Radiating Modes	S4HC 3-Way Dual 6-1/2" Horizontal Flush-Mount Speaker	S4VC 3-Way 8" Vertical Flush-Mount Speaker	S4S In-Wall Flush-Mount Dual 10" THX™ Ultra2™-Certified Passive Subwoofer	HT4H Vertical L/C/R Speaker
FREQUENCY RESPONSE	36Hz – 40kHz*	36Hz – 40kHz*	80Hz – 17kHz	20Hz – 200Hz	100Hz – 18kHz	35Hz – 80Hz		48Hz – 40kHz	48Hz – 40kHz	80Hz – 20kHz	65Hz – 20kHz	65Hz – 20kHz	20Hz – 150kHz (–6dB) (THX®/LFE mode)	42Hz – 20kHz (–6dB)
SPEAKER CONFIGURATION	435AL-1 3" Aquaplas-treated aluminum-dome compression driver, mounted in a vertical SonoGlass® constant-directivity horn; 045Ti 1" pure-titanium compression driver mounted in a SonoGlass constant-directivity horn	Dual 8" deep-anodized-aluminum cone and dome material with dual-inside-neodymium magnets, shielded motor structure and 2" voice coils	HF (2) 2" compression driver/Bi-Radial® horn; LF (2) 8" mid-bass drivers	LF (1) 18" shielded transducer	HF (2) 1" compression driver/Bi-Radial® horn; MF (2) 5" full-range drivers	LF (1) 15" shielded subwoofer		Mid-bass transducer: dual 6-1/2" cones, shielded; high-frequency transducer: 175ND-3 1-3/4" compression driver; ultrahigh-frequency transducer: 045Ti 1" compression driver	Mid-bass transducer: dual 6-1/2" cones, shielded; high-frequency transducer: 175ND-3 1-3/4" compression driver; ultrahigh-frequency transducer: 045Ti 1" compression driver	Triple 1" pure-titanium domes with rubber surrounds, shielded, with EOS waveguide; dual 4" neodymium full-range with rubber surrounds and cast-aluminum baskets; 8" dual-voice-coil, inverted dome with rubber surround and cast-aluminum basket	1" Pure-titanium dome with rubber surround, shielded, with EOS waveguide; 4" titanium inverted dome with rubber surround and cast-aluminum basket, shielded	1" Pure-titanium dome with rubber surround, shielded, with EOS waveguide; 4" titanium inverted dome with rubber surround and cast-aluminum basket, shielded	Dual 10" polymer-coated aluminum cones with rubber surrounds	5-1/4" Low-frequency driver; 1" titanium-dome high-frequency driver with Bi-Radial® horn
POWER HANDLING	300 Watts	300 Watts	200 Watts	800 Watts	150 Watts	250 Watts		200 Watts	200 Watts	200 Watts	250 Watts	250 Watts	500 Watts per channel	150 Watts
SENSITIVITY 1W @ 1m	98dB	92dB	95dB	97dB	87dB	94dB		89dB	89dB	90dB	91dB	91dB	88dB	88dB
NOMINAL IMPEDANCE	6 Ohms	6 Ohms	4 Ohms	8 Ohms	6 Ohms	8 Ohms		6 Ohms	6 Ohms	6 Ohms	6 Ohms	6 Ohms	4 Ohms	8 Ohms
DIMENSIONS¹ (H x W x D)	17-1/4" x 8" x 11-1/2" 438mm x 200mm x 292mm	20" x 10" x 10-3/4" 509mm x 254mm x 273mm	24-5/8" x 13-5/8" x 11-1/4" 626mm x 345mm x 286mm	34-1/2" x 21" x 22" 876mm x 533mm x 559mm	16" x 11-9/16" x 6-9/16" 406mm x 294mm x 166mm	27-1/2" x 21" x 15-13/16" 699mm x 533mm x 401mm		27-3/8" x 10-3/16" x 12-5/8" 695mm x 259mm x 321mm	9-5/8" x 28-5/8" x 9-1/16" 245mm x 727mm x 233mm	23-7/8" x 14" x 3-3/4" 606mm x 356mm x 95mm	14" x 23-7/8" x 5-1/2" 356mm x 606mm x 140mm	23-7/8" x 14" x 5-1/2" 606mm x 356mm x 140mm	64" x 14" x 5" 1626mm x 356mm x 130mm	20" x 6-13/16" x 12-1/2" 508mm x 173mm x 318mm
WEIGHT	25 lb/11.4kg	25 lb/11.4kg	70 lb/31.8kg	129 lb/58.6kg	28 lb/12.7kg	110 lb/50kg		28 lb/12.7kg	28 lb/12.7kg	23 lb/10.5kg	32 lb/14.5kg	26 lb/11.8kg	24 lb/10.9kg	25 lb/11.4kg

*For the complete speaker module, SAM1HF/SAM2LF together
¹ Dimensions do not include mounting hardware or feet. Add 3" (75mm) depth for mounting hardware, and 1" (25mm) height for feet.

1943
Flat-wire milling and high-speed winding of ribbon-wire voice coils developed.

1944
Lansing and Hilliard redefine the state of the art for motion-picture theaters with the A4, dubbed the "Voice of the Theatre."

1946
James B. Lansing Sound, Inc., is formed.

1947
JBL engineers produce the D-130 15" loudspeaker, which was the first known use of a 4" flat-wire voice coil in a cone transducer.

1947
Jim Lansing

1954
The 075 high-efficiency, high-frequency ring radiator is developed. This incredible device is still used in JBL product lines today.

1955
The JBL model 375 high-frequency compression driver is introduced. This is the first commercially available 4" diaphragm driver, producing flat response to 9kHz.

1954
A family of JBL acoustic lenses is manufactured.

1958
The cylindrical reflecting principle is present in the Paragon stereophonic loudspeaker system.

1955
JBL Sound's Hartsfield System is called "the ultimate dream speaker" by *LIFE* magazine.

1962
The first JBL two-way studio monitor to use a high-frequency compression driver with acoustic lens is produced.

1962
Leo Fender of musical instrument fame incorporates the D-130 into his famous guitar amplifiers, signaling JBL entry into the music reinforcement field.

1965
The JBL T-circuit output is developed for high-output, solid-state amplification.

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1969
JBL, Inc., is acquired from William Thomas by Harman International, embarking on a period of accelerated international growth through Harman distribution.

1969
JBL loudspeakers power the historic Woodstock musical festival.

1973
The first four-way JBL studio monitor series, the 4300 Series, is unveiled.

1973
The L100, a consumer version of the popular 4310 studio monitor, is released. During the '70s, sales volume of this product reaches more than 125,000 pairs.

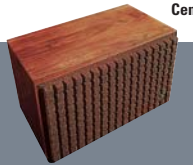


DESCRIPTION	HT4V THX® Vertical L/C/R Speaker	HTPS-400 12" 1kW THX® Powered Subwoofer	PS1400 14" 400W Powered Subwoofer	SK2-1000 3-Way, Dual 10" Center Speaker
FREQUENCY RESPONSE	42Hz – 20kHz (–6dB)	25Hz – 250Hz (±3dB)	28Hz – 130Hz	60Hz – 50kHz (–6dB)
SPEAKER CONFIGURATION	5-1/4" Low-frequency driver; 1" titanium-dome high-frequency driver with Bi-Radial® horn	LF (1) 12" Aluminum cone with rubber surrounds, video-shielded	LE14H-3 14" Aquaplas-cone woofer with rubber surround; 4" edge-wound copper voice coil and cast-aluminum basket	(2) 10" Neodymium Differential Drive (NDD)® Aquaplas-coated woofers (2251J-2); 3" pure-beryllium compression driver (435Be) and 1"-throat Bi-Radial® horn (100" vert. x 50" horiz.); 1" pure-beryllium compression driver (045Be)
POWER HANDLING	150 Watts	1000 Watts	400 Watts	300 Watts RMS
SENSITIVITY 1W @ 1m	88dB	91dB	91dB	94dB (2.83V/1m)
NOMINAL IMPEDANCE	8 Ohms	N/A	N/A	8 Ohms
DIMENSIONS¹ (H x W x D)	20" x 6-13/16" x 12-1/2" 508mm x 173mm x 318mm	14-5/8" x 14-5/8" x 14-5/8" 372mm x 372mm x 372mm	19" x 20" x 15" 483mm x 508mm x 381mm	25" x 22" x 9" 635mm x 559mm x 229mm
WEIGHT	25 lb/11.4kg	62 lb/28.2kg	80 lb/36.4kg	80 lb/36.4kg



DESCRIPTION	K2 S9800 3-Way, 15" Floorstanding Speaker	DD66000 3-Way, Dual 15" Floorstanding Speaker	1400 ARRAY 3-Way, 14" Floorstanding Speaker	1000 ARRAY 3-Way, 10" Floorstanding Speaker	800 ARRAY 3-Way, 8" Bookshelf Speaker	880 ARRAY 3-Way, Dual 8" Center Channel Speaker	1500 ARRAY 15" 1000-Watt Front-Firing Subwoofer	
FREQUENCY RESPONSE	45Hz – 50kHz (–6dB)	45Hz – 50kHz	32Hz – 40kHz	35Hz – 40kHz	55Hz – 40kHz	70Hz – 40kHz	25Hz – 400Hz, variable	
SPEAKER CONFIGURATION	15" Pulp-cone woofer (1500AL); 3" pure-beryllium compression driver (435Be) and 1"-throat Bi-Radial® horn; 1" pure-beryllium compression driver (045Be) and 1/2"-throat Bi-Radial horn (65" vert. x 35" horiz.)	15" Pulp-cone woofer (1501AL) x 2; 4" beryllium compression driver (476Be); 1" beryllium compression driver (045Be-1)	LE14H-3 14" Aquaplas-treated pulp-cone woofer; 435AL-1 3" Aquaplas-treated aluminum-dome compression driver, mounted in a vertical SonoGlass® constant-directivity horn; 045Ti 1" pure-titanium compression driver mounted in a SonoGlass constant-directivity horn	10" Polymer-treated pulp-cone driver; 175Nd-3 1-3/4" Aquaplas-treated titanium-dome compression driver mounted in a vertical SonoGlass® constant-directivity horn; 045Ti 1" pure-titanium compression driver mounted in a SonoGlass constant-directivity horn	8" Polymer-treated pulp-cone driver; 175Nd-3 1-3/4" Aquaplas-treated titanium-dome compression driver mounted in a vertical SonoGlass® constant-directivity horn; 045Ti 1" pure-titanium compression driver mounted in a SonoGlass constant-directivity horn	Dual 8" Aquaplas-treated pulp-cone woofer; 435AL-1 3" Aquaplas-treated aluminum-dome compression driver, mounted in a vertical horn; 045Ti 1" pure-titanium compression driver mounted in a SonoGlass® constant-directivity horn		W1500H 15" pulp-cone driver with rubber surround and massive ferrite-motor assembly with 4" copper edge-wound voice coil, mounted in a trapezoidal enclosure
POWER HANDLING	400 Watts RMS/800 watts peak	500 Watts RMS/1000 watts peak	300 Watts	200 Watts	200 Watts	200 Watts	N/A	
SENSITIVITY 1W @ 1m	94dB (2.83V/1m)	96dB	89dB	89dB	88dB	90dB	N/A	
NOMINAL IMPEDANCE	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms	N/A	
DIMENSIONS¹ (H x W x D)	51" x 20" x 14-3/4" ¹ 1295mm x 508mm x 375mm ¹	43-11/16" x 38" x 18-1/2" 1109mm x 965mm x 469mm	46-1/2" x 15-1/2" x 19" 1181mm x 394mm x 483mm	43-1/2" x 12-1/4" x 17" 1105mm x 311mm x 432mm	29-1/4" x 10-3/4" x 14" 743mm x 273mm x 356mm	12-1/4" x 28-3/4" x 11" 311mm x 730mm x 279mm	23" x 19-1/2" x 19" 584mm x 495mm x 483mm	
WEIGHT	198 lb/90kg	312 lb/141.8kg	115 lb/52.3kg	70 lb/31.8kg	40 lb/18.2kg	46 lb/20.9kg	125 lb/56.8kg	

¹ 21" (533mm) deep with grille



Century 100

The first JBL Bi-Radial horns are used, built on the concept of flat power response.

1981



4435

1982

Titanium is first used as a diaphragm material in compression drivers. JBL 4675 direct-radiator systems with constant directivity set the performance standard for cinema loudspeakers.



1983

JBL, Inc., is the Lucasfilm selection to develop the first commercial THX-licensed cinema speaker system.

1984

Titanium-dome tweeters are introduced into consumer products, providing superlative response to 27kHz. The Academy of Motion Picture Arts and Sciences selects JBL components for the new sound system in the Samuel Goldwyn Theater.



Titanium-Dome Tweeter

Project Everest DD55000

The Project Everest DD55000 system is named Product of the Year by Japan's Stereo Sound.

1985



1989

The Directors Guild of America chooses JBL components for its headquarters.

1990

The development of JBL Vented Gap Cooling™ technology raises the thermal power limits of low-frequency transducers.



1991

The first JBL Pro Audio neodymium woofer debuts in the JBL Array Series.










S1M

1992

The K2 loudspeaker system is chosen by Japan's Stereo Sound as Product of the Year. JBL Synthesis systems are released – the industry's first completely equalized, processed, powered THX home-media system. A new, lower-midrange JBL compression driver with matching horns is introduced.

1993

JBL SoundEffects™ technology provides CD-quality wireless solutions for "rapid flare" low-distortion JBL compression drivers, and a matching family of horns is developed.

							
DESCRIPTION	S820 Stereo/Mono THX® Power Amplifier	S5165 THX® Multichannel Power Amplifier	S7165 THX® Multichannel Power Amplifier	SDP-40HD Synthesis® THX® Processor/Controller	SDP-5 Synthesis® THX® Processor/Controller	SDEC-4500P/4500X Digital Crossover/Equalizer	SDEC-3000 Digital Equalizer
POWER OUTPUT	2 x 200 Watts into 8 ohms stereo, 800 watts mono into 8 ohms	5 x 160 Watts into 8 ohms stereo	7 x 160 Watts into 8 ohms	N/A	N/A	N/A	N/A
FREQUENCY RESPONSE	<10Hz – 70kHz (+0, –1dB), –0.75dB at 40kHz, reference 1kHz	<10Hz – 100kHz (+0, –1dB), –0.5dB at 40kHz, reference 1kHz	<5Hz – 100kHz (+0, –3dB)	10Hz – 20kHz (+0.1dB, –0.25dB)	10Hz – 20kHz (+0.5dB, –0.1dB)	20Hz – 20kHz (+0.5dB, –0.5dB)	20Hz – 20kHz (+0.5dB, –0.5dB)
S/N RATIO WEIGHTED AT RATED POWER	<110dBA	>116dBA	>100dBA	108dB minimum, 111dB typical, 22kHz bandwidth	108dB minimum, 22kHz bandwidth	108dB minimum, 22kHz bandwidth	108dB minimum, 22kHz bandwidth
HARMONIC/IM DISTORTION	20Hz – 20kHz, <0.02%	20Hz – 20kHz, <0.02%	20Hz – 20kHz, <0.03%	<0.008% at 1kHz, maximum output level	<0.008% at 1kHz, maximum output level	0.01%	0.01%
DIMENSIONS* (H x W x D)	7" x 19" x 17-1/2" 178mm x 483mm x 445mm	7" x 19" x 19-1/2" 178mm x 483mm x 495mm	7" x 19" x 19-1/2" 178mm x 483mm x 495mm	6-5/8" x 17-5/16" x 14-7/8" 169mm x 440mm x 377mm	5" (w/feet) x 17-5/16" x 14-7/8" 128mm (w/feet) x 440mm x 377mm	3-1/2" x 19" x 18-1/2" 89mm x 483mm x 470mm	1-3/4" x 19" x 18-1/2" 44mm x 483mm x 470mm
WEIGHT	70 lb/31.8kg	88 lb/40kg	97 lb/44.1kg	45 lb/20.5kg	24 lb/10.9kg	13 lb/6kg	6.5 lb/3kg

1994 The JBL S2600 receives the highly coveted Golden Award and *Stereo Sound* COTY Award for its advanced technological execution and superior sonic performance.

1996 The JBL Synthesis SDEC-1000 brings digital technology to its highest level for the benefit of the consumer.

1999 JBL loudspeakers power the Woodstock music festival again.

2000 The JBL VerTec® line array system debuts at the Democratic National Convention.

2001 The JBL Synthesis S7150 is the first consumer 7-channel power amplifier. At 6,500 watts, the Synthesis Ultra system is the most powerful home-theater system available, at any price.

2002 The JBL VerTec system is used for the presidential inauguration in Washington, D.C., in front of 300,000 people.

2003 The JBL K2 S9800 loudspeakers are released, employing the 435Be and 045Be pure-cast-beryllium compression drivers. Germany, Sweden, Great Britain and Japan bestow their top awards on this, the latest in the K2 series of advanced loudspeakers.

2004 The Academy of Motion Picture Arts and Sciences awards JBL engineers the Scientific and Engineering Award and the Technical Achievement Award.

2005 The VerTec system is used for major events, including the Super Bowl Ceremony, the GRAMMY Awards® Ceremony and the World Cup opening ceremony in Seoul. A JBL Synthesis system reigns as the world's most powerful home theater, offering more than 8,000 watts of power and the SDP-40 digital processor.

The JBL Synthesis S4A is the world's first THX Ultra2™ in-wall, flush-mount, multiple surround loudspeaker. JBL, Inc., sponsors The Who's world tour.

JBL, Inc., sponsors the Eric Clapton world tour. The S4A is awarded an International CES® Innovations Award.

2005 JBL Pro receives a Technical GRAMMY® award from the National Academy of Recording Arts & Sciences.

2006 The new reference in JBL home audio performance – Project Everest.



Project Everest DD66000