BBL S N N I H E S I S ®

ONE

T W O

THREE



isten to the music. Fee, the sense of space, the immediacy, the range of a concert-hall performance. Sit back, relax. Absorb the power of high-resolution moving images and perfectly clear dialogue. Let the full-fidelity score and sound effects reach you from all directions.

**Experience Synthesis.** 

State-of-the-art performance for music and cinema. The perfect integration of more than 50 years of JBL preeminence in entertainment design.

Synthesis: Achieved by designing two complements of drivers, each dedicated to its unique application. Within the loudspeakers, an electronically activated relay allows switching between the THX®-licensed cinema system and the music system.

All Synthesis drivers are electronically equalized for optimum tonal balance and performance, and are powered by an array of amplifiers capable of generating all the power imaginable.

Complex system architecture has been rendered elegant by world-renowned interior designers.

Operations have been simplified to the selection of a single button on the system's decoder/controller.

Synthesis One — a complete, turnkey system capable of transforming 21,000 cubic feet into an intimate concert performance for two as well as delivering the heart-stopping excitement of the world's biggest cinema.

Synthesis Two and Three are capable of igniting 14,000 cubic feet and 6,000 cubic feet respectively with the fury of the wildest cinematic explosion or preserving the sweetness of a violin solo.

The magic of modern media: Synthesis Home Media Systems.





#### Surround Decoders/Controllers SDP-1

The SDP-1 Surround Processor/Controller functions as a line-level preamplifier and composite video switcher, integrated into one package. Through the use of Digital Signal Processing, the unit comes pre-programmed with five modes for recreating video soundtracks including THX and Dolby Pro-Logic, three modes for music ambience extraction, and six concert hall simulators, with the ability to store an additional thirty user programmable modes. Programming has been simplified through the use of on-screen pull down menus for easy system setup. Input sources, surround modes, and signal levels can all be quickly controlled through one of the two remote controllers. The SDP-1 can be rack mounted in a standard 2U rack.

Dimensions: 17.5"w x 14.5"d x 3.5"h



#### SP MKII

Featuring microprocessor-controlled analog circuitry. Exclusive "adaptive high speed steering logic" with features that include THX®, Dolby® Pro-Logic playback modes for cinema sound-tracks, two "movie" modes, five music modes, an enhanced mono mode and effects mute. Directly accessing source inputs, switching among all effects and between the music and cinema systems, are accomplished from the controller's remote control. There are six inputs allowing the SP to act as the system's preamplifier: two s-video, two video, two audio. Dimensions: 3.75 "h x 17" w x 14.5" d



#### **SPS Sequencer**

As the system powers on, the power amplifiers are engaged in sequence to prevent power surges to wall circuits. The system's line conditioner protects against irregularities in house-jourrent. (Not shown.)

current. (Not shown.) Dimensions: 2.25 "h x 12 "w x 5 "d

### S300 and S150 Power Amplifiers

Synthesis amplifiers contain upgraded circuitry components to allow for the greatest bandwidth possible. This design limits high frequency phase shift and preserves the lifelike quality of digital recordings. All amplifier inputs are balanced. Each amplifier is cooled by a "smart" fan controller. A sophisticated circuit allows the fan to run only when there is sufficient sound to completely mask the fan noise. If excessive heat builds up for any reason, the "smart" controller turns up the fan until the heat is reduced.

A total of five S300s (below, left) and one S150 (below) provide Synthesis One with nearly 2 kilowatts of peak power.

Amplifier Power, S300: 150 watts/channel into 4 ohms

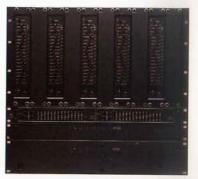
Amplifier Power, S150: 75 watts/channel into 4 ohms

Dimensions: 3.5"h x 19"w x 17"d

Rack mounts provided.

### S1-SPP Signal Processing Package

5 active three-way, fourth-order crossovers and 7 multi-channel equalizers guarantee pinpoint calibration. "Constant Q" graphic equalizer circuitry allows true one-third and two-third octave bandwidth control at various slider positions while the dedicated subwoofer EQs are uniquely configured featuring one-sixth octave centers for the highest resolution available today. Each system's highly specialized EQ package is engaged by the mode switcher. Dimensions: 17.5"h x 19"w x 9"d Rack mount provided.



# S1C-S Center Channel Loudspeaker\*

Magnetically shielded to prevent interference with the cinema image, dual 8-inch, Aquaplas-coated cones, cast frames and Symmetrical Field Geometry. A 2-inch titanium dome compression driver with 1-inch throat bi-radial horn utilizes a neodymium magnet.

Frequency Response: 60Hz to 16kHz Power Handling: 250 watts Sensitivity: 98dB Dimensions: 27"h x 14"w x 9"d



# Ambient dspeaker\*

A diffuse, directionless sound field, ideal for home theater applications, is created by using a di-polar configuration. Each side of the dipole contains one 8-inch driver and one vertically mounted compression driver/horn. Each element has been selected to guarantee maximum power handling and performance. Using identical components in the center channel, ambient and main front loudspeakers provides consistent timbral character. Frequency Response: 80Hz to 12kHz Power Handling: 150 watts Sensitivity: 95d8
Dimensions: 24.625 "h x 13.625 "w x



## S1S Subwoofer\*

18-inch, Aquaplas-coated fiber concentrated wound copper voice coil, Symmetrical Field Geometry and cast aluminium frame keep this driver virtually distortion free at high volumes. (Below, bottom.) Frequency Response: 20Hz to 1kHz Power Handling: 600 watts
Sensitivity: 95dB
Dimensions: 34.5"h x 21"w x 22"d



## S1M Left and Right Front Main Loudspeakers\*

The music system engages two 8-inch midbass drivers, two 5-inch midranges, and a 1-inch titanium dome tweeter for extraordinary clarity and detail. When the electronic relay within the loudspeaker engages the cinema system, the 5-inch drivers and 1-inch titanium dome are disengaged and the compression driver/bi-radial horn is activated. (Below. left. top.)

# S1M-Cinema\*

Frequency Response: 60Hz to 16kHz Power Handling: 250 watts Sensitivity: 100dB

#### S1M-Music

Frequency Response: 60Hz to 22kHz Power Handling: 275 watts Sensitivity: 95dB Dimensions: 27"h x 21"w x 9"d

\*Licensed by THX®



#### Surround **Decoders/Controllers** SDP-1

The SDP-1 Surround Processor/Controller functions as a line-level preamplifier and composite video switcher, integrated into one package. Through the use of Digital Signal Processing, the unit comes preprogrammed with five modes for recreating video soundtracks including THX and Dolby Pro-Logic, three modes for music ambience extraction, and six concert hall simulators, with the ability to store an additional thirty user programmable modes. Programming has been simplified through the use of on-screen pull down menus for easy system setup. Input sources, surround modes, and signal levels can all be guickly controlled through one of the two remote controllers. The SDP-1 can be rack mounted in a standard 2U rack. Dimensions: 17.5"w x 14.5"d x 3.5"h



#### SP MKII

Featuring microprocessor-controlled analog circuitry. Exclusive "adaptive high speed steering logic" with features that include THX®, Dolby® Pro-Logic playback modes for cinema soundtracks, two "movie" modes, five music modes, an enhanced mono mode and effects mute. Directly accessing source inputs, switching among all effects and between the music and cinema systems, are accomplished from the controller's remote control. There are six inputs allowing the SP to act as the system's preamplifier: two s-video, two video, two audio. Dimensions: 3.75"h x 17"w x 14.5"



## **SPS Sequencer**

As the system powers on, the power amplifiers are engaged in sequence to prevent power surges to wall circuits. The system's line conditioner protects against irregularities in household current. (Not shown.) Dimensions: 2.25"h x 12"w x 5"d



#### S300 and S150 **Power Amplifiers**

Synthesis amplifiers contain upgraded circuitry components to allow for the greatest bandwidth possible. This design limits high frequency phase shift and preserves the lifelike quality of digital recordings. All amplifier inputs are balanced. Each amplifier is cooled by a "smart" fan controller. A sophisticated circuit allows the fan to run only when there is sufficient sound to completely mask the fan noise. If excessive heat builds up for any reason, the "smart" controller turns up the fan until the heat is reduced.

A total of two S300s (below, left) and two S150s (below) provide Synthesis Two with nearly 900 watts of peak power. Amplifier Power, \$300: 150 watts/channel into 4 ohms Amplifier Power, \$150: 75 watts/channel into 4 ohms Dimensions, both models: 3.5"h x 19"w x 17"d Rack mounts provided.

## S2-SPP Signal **Processing Package**

7 multi-channel equalizers allow for pinpoint calibration. "Constant Q" graphic equalizer circuitry allows true one-third and two-third octave bandwidth control at various slider positions. while the dedicated subwoofer EQs are uniquely configured featuring one-sixth octave centers for the highest resolution now available. Each system's highly specialized EQ package is engaged by the mode switcher. Dimensions: 10.5"h x 19"w x 9"d Rack mount provided.





#### **S2C Center Channel** Loudspeaker\*

A 2-inch titanium dome compression driver and 1-inch throat horn uses a neodymium magnet to enhance sound quality and installation flexibility. Two 6-inch drivers use cast frames and Symmetrical Field Geometry for rich, accurate vocal performances. The loudspeaker is magnetically shielded to prevent interference with on-screen images.

Frequency Response: 50Hz to 16kHz Power Handling: 150 watts Sensitivity: 91dB Dimensions: 23.5"h x 15"w x 10.78"d

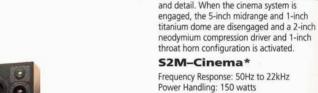
## S2A Ambient udspeaker\*

A diffuse, directionless sound field, ideal for home theater applications, is created by using a di-polar configuration. Dual 5-inch full range drivers and dual 1-inch compression driver/horn transducers have been selected to guarantee outstanding power handling and the highest quality performance.

Frequency Response: 80Hz to 12kHz Power Handling: 100 watts Sensitivity: 92dB Dimensions: 16"h x 11.56"w x 6.53"d

## S2S Subwoofer\*

15-inch Aquaplas-coated fibe edge wound copper voice coil, symmetrical Field Geometry and cast aluminum frame keep this driver virtually distortion free at high volumes. Magnetically shielded. (Below, bottom.) Frequency Response: 30Hz to 1kHz Power Handling: 200 watts Sensitivity: 94dB Dimensions: 27.5"h x 21"w x 15.78"d





# Frequency Response: 50Hz to 22kHz Power Handling: 150 watts Sensitivity: 92dB

#### S2M-Music

S2M Left and

Loudspeakers\*

**Right Front Main** 

Two complements of drivers, each dedicated

to its unique application, each activated by an

the cinema mode. The music system utilizes

electronic relay that switches from the music to

two 6-inch mid-bass drivers, a 5-inch micro-cell

midrange and a 1-inch shielded titanium dome

tweeter, chosen for their extraordinary clarity

Frequency Response: 50Hz to 22kHz Power Handling: 150 watts Sensitivity: 92dB Dimensions: 26"h x 17.5"w x 9.78"d

\*Licensed by THX®









#### Surround Decoders/Controllers SPD-1

The SDP-1 Surround Processor/Controller functions as a line-level preamplifier and composite video switcher, integrated into one package. Through the use of Digital Signal Processing, the unit comes pre-programmed with five modes for recreating video soundtracks including THX and Dolby Pro-Logic, three modes for music ambience extraction, and six concert hall simulators. with the ability to store an additional thirty user programmable modes. Programming has been simplified through the use of on-screen pull down menus for easy system setup. Input sources, surround modes, and signal levels can all be guickly controlled through one of the two remote controllers. The SDP-1 can be rack mounted in a standard 2U rack. Dimensions: 17.5"w x 14.5"d x 3.5"h



controller's remote control. There are six inputs allowing the SP to act as the system's preamplifier: two s-video, two video, two audio. Dimensions: 3.75"h x 17"w x 14.5"d



# **SPS Power Sequencer**

As the system powers on, the power amplifiers are engaged in sequence to prevent power surges to wall circuits. The SPS also serves as the main control bus for sending logic control signals throughout the system. Dimensions: 2.25"h x 12"w x 5"d

#### 5300 and 5150 **Power Amplifiers**

Synthesis amplifiers contain upgraded circuitry components to allow for the greatest bandwidth possible. This design limits high frequency phase shift and preserves the lifelike quality of digital recordings. All amplifier inputs are balanced. Each amplifier is cooled by a "smart" fan controller, a sophisticated circuit allows the fan to run only when there is sufficient sound to completely mask the fan noise. If excessive heat builds up for any reason, the "smart" controller turns up the fan until the heat is reduced.

vide Synthesis Three with nearly 900 watts of peak power. Amplifier Power: 5300: 150watts/channel into 4 ohms S150: 75watts/channel into 4 ohms Dimension, both models: 3.5"h x 19"w x 17"d

A total of two S300s and two S150s pro-

Rack mounts provided.

## S3-SPP Signal **Processing Package**

Four multi-channel equalizers allow for pinpoint calibration. "Constant Q" graphic equalizer circuitry allows true one-third octave bandwidth control for the left, center, and right channels, while the dedicated subwoofer equalizer is uniquely configured featuring one-sixth octave centers for the highest resolution now available. The S3-SPP includes a three channel screen boost control for behind the screen installations, and a three channel high frequency contour control to enhance the treble, which are engaged via mode switching circuitry.

## SP MKII

Featuring microprocessor-controlled analog circuitry. Exclusive "adaptive high speed steering logic" with features that include THX\*, Dolby\* Pro-Logic playback modes for cinema soundtracks, two "movie" modes, five music modes, an enhanced mono mode and effects mute. Directly accessing source inputs, switching among all effects and between the music and cinema systems, are accomplished from the







## S3M (Left and Right) Front Main Loudspeakers\*

Two complements of drivers, each dedicated to its unique application, each by an electronic relay that switches from the music to the cinema mode. The cinema system utilizes two 61/2-inch midbass drivers and a 1-inch shielded compression driver with 5/8-inch throat horn, chosen for their extraordinary clarity and tightly controlled directivity. When the music system is engaged, one 61/2-inch midbass driver is disengaged, and a 1-inch shielded titanium dome tweeter is activated.

#### S3M-Cinema

Frequency Response: 70Hz to 18kHz, -3dB Power Handling: 150 watts Sensitivity: 87dB

#### S3M-Music

Frequency Response: 70Hz to 24kHz. -3dB Power Handling: 100 watts Sensitivity: 87dB Dimensions: 31.86"h x 10.13"w x 12.56"d

# S3S (Left and Right) Subwoofer

12-inch Aquaplas-coated fiber cone, 3-inch edge wound copper voice coil, Symmetrical Field Geometry and cast aluminum frame keep this driver virtually distortion free at high volumes. Magnetically shielded. Frequency Response: 32Hz to 1kHz, -3dB Power Handling: 250 watts Sensitivity: 92dB Dimensions: 19.38 h x 20.31 w x 22.25 d

# **S3VC THX Vertical Center** annel Loudspeaker

A 1-inch high power compression driver and a 5/8-inch throat horn in combination with two 61/2-inch drivers is mounted in a D'Appolito fashion for tight control of the audio image. The 61/2-inch drivers use a fiberglass reinforced cone, along with a microcell laminate dome and surround for a smoother response. The loudspeaker is magnetically shielded to prevent interference with on-screen images Frequency Response: 70Hz to 18kHz, -3dB Power Handling: 150 watts Sensitivity: 87dB Dimensions: 27.36"h x 10.13"w x 12.56"d



# **S2A THX Ambient Louds**

ker A diffuse, directionless sound field, ideal for home theater applications, is created by using a di-polar configuration. Dual 5-inch full range drivers and dual 1-inch compression driver/horn transducers have been selected to guarantee outstanding power handling and the highest quality performance. Frequency Response: 80Hz to 12kHz Power Handling: 100 watts

Sensitivity: 92db Dimensions: 16"h x 10.5"w x 6"d (wall bracket included)

# **S3HC Horizontal Center Channel Loudspeaker**

A pair of 61/2-inch mid-bass drivers, also found in the S3M and S3-VC are used in conjunction with the horn/compression driver to effortlessly place the center image where it belongs. The mid-bass drivers, which utilize a vented pole piece for lower distortion, are symmetrically arranged around the horn in a low profile cabinet to provide broad horizontal coverage. The rear mounted foot assembly allows for precise angular adjustment to accommodate various height televisions.

Frequency Response: 70Hz to 18kHz, -3dB Power Handling: 150 watts Sensitivity: 87dB

Dimensions: 9.63"h x 28.63"w x 8.81"d







The JBL legacy has grown commensurate with popular entertainment in the 20th century:



1928 James B. Lansing develops movie theater speakers for the first "talkie," *The Jazz Singer*. Sight and sound merge on screen for the very first time.

1955 JBL's Hartsfield System is called the "dream speaker" by Life magazine. The modern era of popular high fidelity is born.

1969 JBL loudspeakers are on stage at Woodstock when world attention turns to a cultural revolution in music, electronics and the age of stereo sound.

1979 JBL monitors become the professional standard, with *Billboard* magazine finding that 7 out of every 10 recording studios mix and record their albums using JBLs.

1985 Director/producer George Lucas and his company, Lucasfilm, develop the THX\* system in cooperation with JBL to create the ultimate movie theater sound experience. 1990 The Academy of Motion Picture Arts & Sciences remodels its entire sound system, including its famed Samuel Goldwyn Theater, using JBL loudspeakers and electronic components.

Today A new era in home entertainment is heralded with the introduction of Synthesis, the only audio and cinema system maximized to recreate the ultimate in both music and movie playback in the home.



JBL Consumer Products, Inc. 80 Crossways Park West Woodbury, NY 11797

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