



JBL

PERFORMANCE™ SERIES
LOUDSPEAKER/ELECTRONICS
PRO SOUND YOUR WAY.



PERFORMANCE

AV1 Digital Surround Processor/Controller

Mode

Mode

**IF MOVIES AND
THIS IS YOUR**



MUSIC ARE YOUR LIFE, LIFE SUPPORT SYSTEM.



**BUILT-IN SOUND, BUILT ON JBL'S
PROFESSIONAL HERITAGE.**

With innovative in-wall and on-wall loudspeaker choices and advanced electronics components, the Performance™ Series brings new levels of flexibility, simplicity and sheer power to JBL's legendary Pro sound at home. Manufactured and tested to the same standards as JBL Professional equipment, and featuring many of the same technologies, the Performance Series redefines high-performance home entertainment. Now the full-spectrum, distortion-free, over-the-top sound you expect from JBL fits into your life – and your living space – as never before.

JBL

**PRO SOUND
COMES HOME™**



BUILD THE COMPLETE PERFORMANCE SERIES

FROM PREMIUM TWO-CHANNEL MUSIC SYSTEMS TO CAPTIVATING 5.1, 6.1 AND 7.1 SURROUND SYSTEMS, THERE'S A COMPLETE IN-WALL, ON-WALL, FREE-STANDING OR HYBRID PERFORMANCE SERIES SYSTEM WITH YOUR NAME ON IT.

To get a sense of the versatility Performance Series components offer, consider the three-way PT800 loudspeaker. Just 6 inches deep, it can stand on a floor mount or bookshelf, or be wall-mounted alongside a flat-panel display (brackets included) or docked atop the PS1400 subwoofer. Use a pair as the primary speakers in a music system or employ up to six with the PC600 center channel speaker in a home theater system. Or create the perfect multichannel system for your space with any combination of extraordinary P941 and P81 in-wall loudspeakers as satellites. The multitude of choices are all yours.

With professional-grade loudspeaker technologies and sophisticated new electronics, including the AV1 surround sound processor/controller and AVA7 power amplifier, Performance Series systems deliver outstanding sonic realism in spaces of up to 5,000 cubic feet.

1940's



NYLON STOCKINGS, FILM NOIR, THE DAWN OF AUDIO.

AUDIO. James B. Lansing leaves Western Electric (where he led the team that brought sound to the movies) to start JBL. First products: the D130, an innovative high-power, low-frequency transducer, and a high-frequency transducer that's still used by audio professionals more than 50 years later.

1950's



BLUE SUEDE SHOES, MCCARTHY, THE ELECTRIC GUITAR.

As rock 'n' roll is born, JBL becomes the clear leader in studio and theater sound. Leo Fender chooses the D130 to amplify his electric guitars. And *LIFE* magazine calls the JBL Hartfield the "dream speaker" for the amazing new world of hi-fi.

1960's



VIETNAM, WOODSTOCK, SPACE.

JBL introduces the legendary 4320. With a high-frequency compression driver and acoustic lens in a 4-way configuration, it becomes the definitive studio monitor of the Space Age. And JBL becomes standard equipment at major rock concerts. Remember that little gathering at Woodstock? (We're with the band, man.)

1970's



POLYESTER, WATERGATE, SATURDAY NIGHT FEVER.

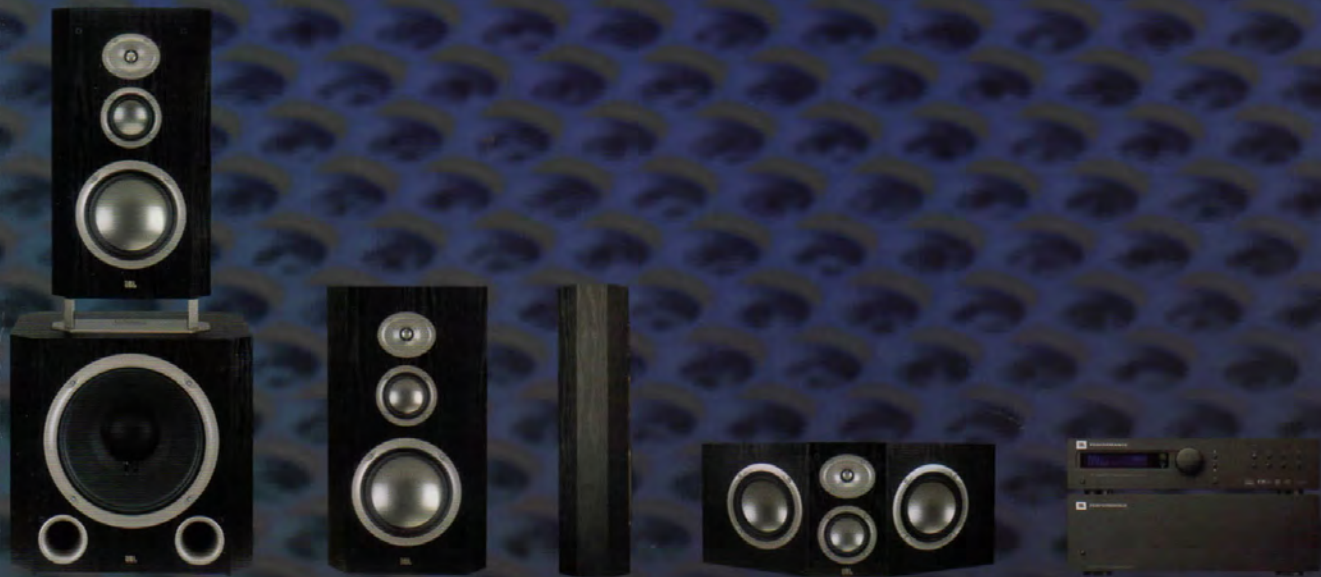
By 1976, a Billboard survey ranks JBL studio monitors number one. And JBL Pro technology comes home with the L-100, a consumer version of the 4300 Series, one of the best-selling speakers of the decade (and vastly better-looking than the clothes of the era).

1980's



MIAMI VICE, MASTERS OF THE UNIVERSE, MTV.

The Academy of Motion Picture Arts and Sciences chooses JBL components to introduce 70mm Dolby stereo in showcase theaters. JBL introduces titanium diaphragms and Bi-Radial horns in professional studio monitors.



SYSTEM THAT'S RIGHT FOR YOU.

1990's

TODAY



GEN X, DOT-COMS, DVD.

JBL's professional innovations come thick and fast: Vented Gap Cooling,[™] Optimized Aperture[™] horns, rapid-flare low-distortion compression drivers. JBL corners the THX[®] cinema market. And JBL near-field studio monitors lead in 5.1 and 7.1 sound mixing and mastering.

JBL'S PERFORMANCE SERIES.

This multichannel speaker system incorporates the signature JBL technologies that bring professional sound home.





**MOVIES
NEVER**

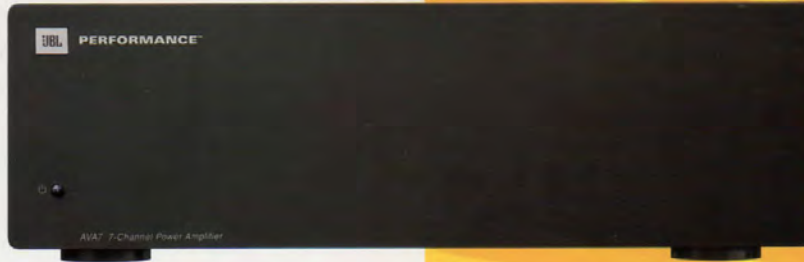


IN-WALL OR EXPOSED? IT'S NO LONGER AN EITHER/OR QUESTION. Lightning-fast pure-titanium-dome tweeters. Precise pure-titanium inverted-dome midrange transducers. And arena-quality Aquaplas and Organic Ceramic Composite woofer cones. As thunderously loud as it needs to be, and as delicately refined as it sometimes can be, the Performance Series is home entertainment intended to delight the most critical listeners. Just as important, the Performance Series is designed around you and how you live. It exceeds your expectations without exceeding the limitations of your space.

AND MUSIC AS YOU'VE HEARD THEM AT HOME.

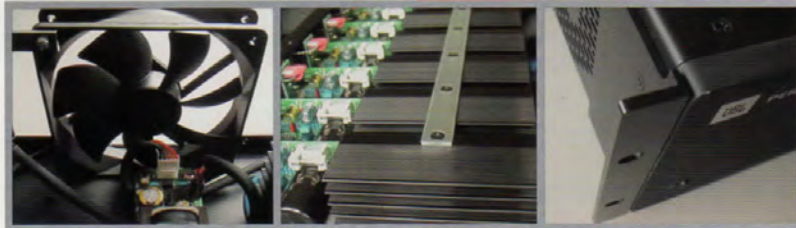


AV1 7.1-Channel Surround Processor/System Controller



AVA7 7-Channel Power Amplifier

The **JBL PERFORMANCE AVA7** seven-channel power amplifier uses forced-air cooling to ensure the highest level of performance, durability and longevity, even under extended high-power-output demands.



Two constantly moving **VARIABLE VELOCITY COOLING FANS** pull cool air from the back of the chassis, and past the amplifier module section's heatsinks, which exit on the front sides of the AVA7.

The actual **AMPLIFIER MODULES'** temperature and associated input signal strength determine how much air flow is required to keep the amplifier at its optimum operating temperature.

This design allows for **STACKING** of the AVA7, without the need for additional space when either shelf- or rack-mounting the unit.

Realizing the full impact of today's most popular digital media – achieving the highest possible resolution and fidelity – takes versatility, connectivity and more than a little raw power from your system's electronics. The state-of-the-art electronic components of the Performance Series deliver brilliantly on all counts.

THE POWER BEHIND

The software-upgradeable, **HDTV-COMPATIBLE** AV1 handles THX® and THX Ultra2™, DTS-ES® and DTS Neo:6®, and Dolby® Digital, Pro Logic®, Pro Logic II and Dolby Digital Surround EX™, not to mention Harman International's exclusive **LOGIC 7®** processing for enhanced realism. And with eight analog audio inputs, four coaxial and four optical digital audio inputs, and five S-video, five composite and three component video inputs, it plays well with others.

With **7 x 125 WATTS OF POWER**, the AVA7 delivers superb sonic performance and **INTERFACES DIRECTLY WITH THE AV1**, enabling superior remote control. It's also vented from the rear and the sides, rather than from the top, for direct stacking above or below the AV1.



PERFORMANCE.

THE ELEMENTS

PURE-TITANIUM, HIGH-FREQUENCY TRANSDUCER DOMES.

Driven by neodymium magnets, they're faithful to the highest frequency sounds, and fast enough to reproduce them effortlessly.

ELLIPTICAL OBLATE SPHEROIDAL™ (EOS™) WAVEGUIDES.

First developed for JBL Professional LSR studio monitors, they evenly disperse high frequencies over a wider area for better imaging.

PURE-TITANIUM, INVERTED-DOME MIDRANGE TRANSDUCERS.

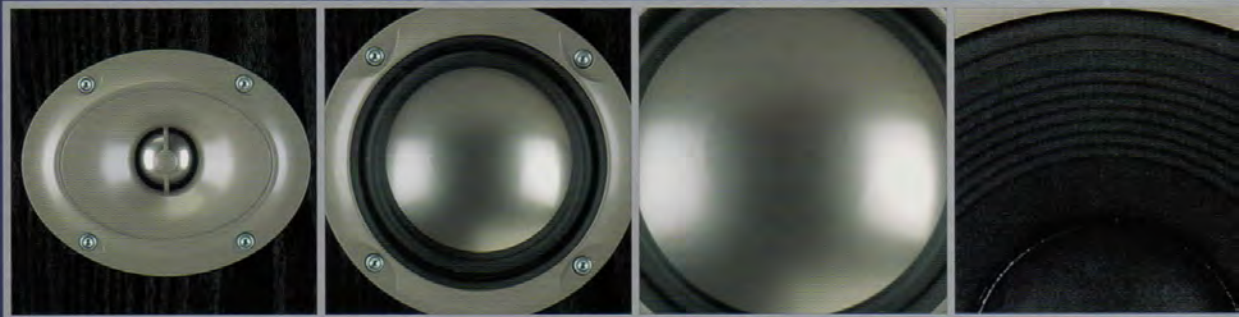
Precisely driven from their centers, they deliver nearly perfect pistonic motion for flat frequency response well beyond the crossover point.

TITANIUM-ALLOY, INVERTED-DOME, LOW-FREQUENCY TRANSDUCERS.

Pure, undistorted bass even at the highest listening levels, enabled by rigid cast-aluminum frames that are sonically neutral.

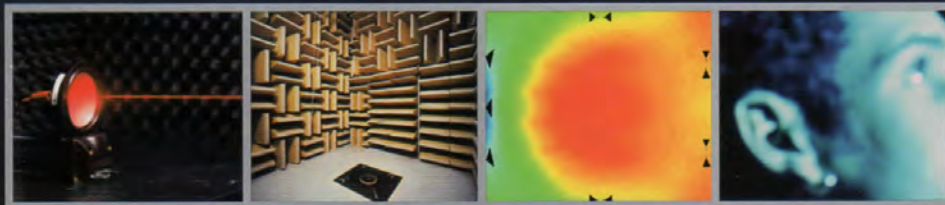
LE14H-3 14" AQUAPLAS-CONE SUBWOOFER.

Plays loud and long without excessive heat – as you'd expect from a design derived directly from the massive speaker arrays used in arenas and other professional venues.



TESTING THE LIMITS OF PERFORMANCE.

No other audio manufacturer enjoys the professional reputation of JBL. It's a reputation earned over the years through the rigorous testing and relentless improvement of innovative materials, technologies and manufacturing techniques. Our professional customers – the world's leading theaters, recording studios, concert halls and touring musicians – will not settle for less. And neither should you. Every Performance Series speaker has passed the same battery of tests that our Professional speakers have.



REAL-TIME FFT LASER VIBROMETRY.

JBL engineers use low-frequency lasers to test the performance characteristics of various transducer materials and laminates, to find those least likely to produce unwanted resonances during peak audio passages. It's how we developed the titanium domes and Aquaplas and Organic Ceramic Composite cones of the Performance Series.

IMPROVED ANECHOIC CHAMBERS.

Imagine a room so sonically inert that sound reflections can't happen. That's what's needed to conduct the ultraprecise measurements of a loudspeaker's primary output, which improves our understanding of how materials, coatings and manufacturing techniques affect performance.

MULTIAXIS ANALYSIS.

How will a loudspeaker that performs brilliantly in an anechoic chamber sound in your room, surrounded by your furniture? The answer lies in a complex combination of literally thousands of on- and off-axis responses. Every Performance Series speaker has been measured at 72 different positions on a horizontal and vertical plane, and optimized for real-world acoustics.

THE MOST SOPHISTICATED INSTRUMENTS OF ALL.

Trained or untrained, professional or amateur, the human ear will always be the final arbiter of sound. As have all our products, JBL Performance Series loudspeakers have passed stringent listening tests with all kinds of people in all kinds of listening environments. So you can be assured that you'll actually hear everything the Performance Series has to offer.



OF PERFORMANCE.

SORBOTHANE ISOLATORS absorb energy that otherwise would be transmitted to the wall, resulting in the reduction of unwanted resonances.

SCANNING LASER VIBROMETER measurement of wall-panel resonance with an in-wall loudspeaker playing.

Note: More extreme colors indicate increased wall vibration.

EASY INTEGRATION AND FLEXIBLE PLACEMENT.

Four front-panel controls provide convenient access to speaker fine-tuning for integration with other speakers, personal preferences and placement considerations.

LOW-FREQUENCY BOUNDARY COMPENSATION CONTROL

tailors the low-frequency output of the speaker for installation close to an adjacent wall, ceiling, floor or corner.

LISTENER AXIS CONTROL

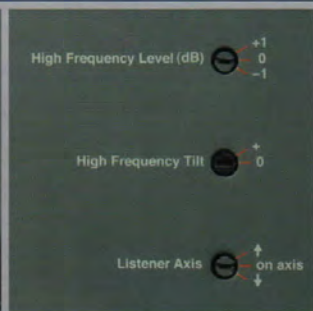
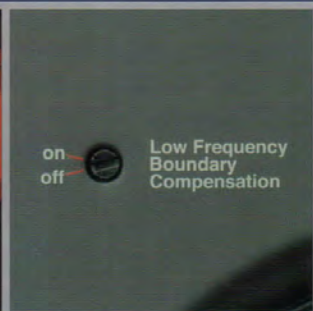
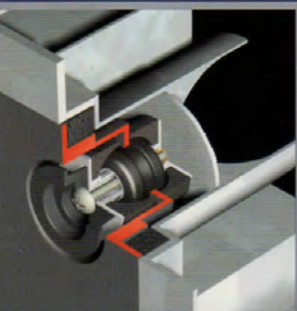
tailors the speaker characteristics for placement off axis, allowing for increased placement options.

HIGH-FREQUENCY TILT CONTROL

increases the level of the upper range of the tweeter.

HIGH-FREQUENCY LEVEL CONTROL adjusts the tweeter output level relative to the other transducers.

Together, these controls allow for precise adjustment of the high-frequency balance for integration with other speakers in the listening room.



MEASURING PERFORMANCE



P941

P81

HTPS400

PS1400

| | | | | |
|------------------------------------|------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Description | 9" 3-Way | 7-1/2" 2-Way | Powered subwoofer module (not available in 230V) | Powered subwoofer module |
| Built-In Amplifier Power Output | N/A | N/A | 1,000W | 400W |
| Recommended Power | 15W – 200W | 15W – 150W | N/A | N/A |
| Nominal Impedance | 8 Ohms | 8 Ohms | N/A | N/A |
| Sensitivity (2.83V/1m) | 89dB | 87dB | 91dB | 91dB |
| Frequency Response (-6dB) | 32Hz – 20kHz | 40Hz – 20kHz | 25Hz – 250Hz | 28Hz – 130Hz |
| Crossover Frequencies | 300Hz, 2kHz; 24dB/Octave | 2.8kHz; 24dB/Octave | THX mode: bypassed Normal mode: 50Hz – 150Hz | 130Hz |
| High-Frequency Transducer | 1" Pure-titanium dome | 1" Pure-titanium dome | N/A | N/A |
| Midrange Transducer | 3-1/2" | N/A | N/A | N/A |
| Low-Frequency Transducer(s) | 9" OCC (Organic Ceramic Composite) | 7-1/2" OCC (Organic Ceramic Composite) | 12" Aluminum cone woofer with rubber surround, video-shielded | LE14H-3 14" Aquaplas cone woofer with rubber surround, 4" edge-wound copper voice coil and cast-aluminum basket |
| Baffle | Cast aluminum | Cast aluminum | Braced and lock mitered | IsoPower™ |
| Ports | None | None | None | Dual FreeFlow™ flared |
| Networks | SSP™ (Straight-Line Signal Path™) | SSP™ (Straight-Line Signal Path™) | Active electronic crossover | Active electronic crossover |
| Terminals | 5-Way, gold-plated binding posts | 5-Way, gold-plated binding posts | 5-Way, gold-plated binding posts | 5-Way, gold-plated binding posts |
| Grille | Gray cloth with metal wire frame | | | |
| Dimensions (H x W x D) | 22-1/8" x 14-7/8" x 3-1/2" (562mm x 378mm x 89mm) | 17-7/8" x 13" x 3-1/2" (454mm x 330mm x 89mm) | 14-5/8" x 14-5/8" x 14-5/8" (372mm x 372mm x 372mm) (plus grille and spike feet) | 19" x 20" x 15" (483mm x 508mm x 381mm) (plus grille and spike feet) |
| Cutout Dimensions (H x W) | 19-1/8" x 12-1/2" (486mm x 318mm) | 14-7/8" x 10-1/2" (378mm x 267mm) | | |
| Weight | 15 lb/7kg | 11 lb/5kg | 62 lb/28kg | 80 lb/36kg |
| Finish | Black | Black | Available in Eyesoft Beech, Black Ash or Natural Cherry | |

JBL, Logic 7 and Bi-Radial are registered trademarks, and Performance, Pro Sound Comes Home, Elliptical Oblate Spheroidal (EOS), Baffle Isolation System, FreeFlow, Straight-Line Signal Path (SSP), Vented Gap Cooling, Optimized Aperture and IsoPower are trademarks, of Harman International Industries, Incorporated. • Academy Award and the Oscar image are trademarks of the Academy of Motion Picture Arts and Sciences. • Dolby and Pro Logic are registered trademarks of Dolby Laboratories. • Dolby Digital Surround EX is a trademark of Dolby Laboratories. • THX and THX Ultra2 are trademarks of THX Ltd., which may be registered in some jurisdictions. All rights reserved. • DTS-ES and DTS Neo:6 are registered trademarks of Digital Theater Systems, Inc. • Designed, edited and digitally produced by the Harman Consumer Group Marketing & Design Center.

ANCE.



PT800

3-Way, on-wall, corner-mount (with PCM800 kit sold separately) or stand-mount satellite speaker

N/A

50W – 250W

8 Ohms

91dB

80Hz – 22kHz

650Hz, 3200Hz

1" Pure-titanium dome with rubber surround, shielded, with EOS™ waveguide

4" Titanium inverted dome with rubber surround and cast-aluminum basket, shielded

8" Titanium-alloy inverted dome with rubber surround and cast-aluminum basket, shielded

IsoPower™

PortsSealed enclosure

Straight-Line Signal Path™ (SSP™)

5-Way, gold-plated binding posts

Gray cloth with metal wire frame

24" x 13-1/2" x 6"
(610mm x 343mm x 152mm)
(plus grille)

N/A

37 lb/17kg

Available in Eyesoft Beech, Black Ash or Natural Cherry

PC600

3-Way center speaker

N/A

50W – 250W

8 Ohms

91dB

80Hz – 22kHz

800Hz, 3500Hz

1" Pure-titanium dome with rubber surround, shielded, with EOS™ waveguide

4" Titanium inverted dome with rubber surround and cast-aluminum basket, shielded

Dual 6" titanium-alloy inverted domes with rubber surrounds and cast-aluminum baskets, shielded

IsoPower™

Sealed enclosure

Straight-Line Signal Path™ (SSP™)

5-Way, gold-plated binding posts

11-5/8" x 26-7/16" x 7-1/4"
(295mm x 672mm x 184mm)
(plus grille)

N/A

32 lb/15kg



AV1

Audio Input & Output Connectors

Analog Audio Inputs

Eight stereo (RCA) or five stereo and one 5.1-channel or two stereo and two 5.1-channel connectors

Digital Audio Inputs

Four S/P-DIF coaxial (RCA) and four S/P-DIF optical (TosLink) connectors; coaxial and optical input connectors conform to IEC-958, S/P-DIF standards; accepts 44.1kHz, 48kHz, 88.2kHz and 96kHz sample rates; accepts 16–24 bits PCM audio, Dolby Digital, DTS and DTS-ES discrete data formats

Audio Outputs

Eight unbalanced (RCA) connectors for front L/R, center, subwoofer, side L/R and rear L/R

Audio Performance

A/D Conversion

24-Bit, 96kHz, dual-bit architecture

D/A Conversion

24-Bit, 44.1kHz to 192kHz, multi-bit architecture

Frequency Response

10Hz to 20kHz, +0.05dB/-0.1dB, -0.5dB at 40kHz, reference 1kHz

THD + Noise

Below 0.008% at 1kHz, maximum output level

Dynamic Range

108dB minimum, 22kHz bandwidth

Signal-to-Noise Ratio

108dB minimum, 22kHz bandwidth

Input Sensitivity

200mV RMS (2V RMS for maximum output level) at 0dB input gain

Output Level

150mV RMS typical, 6Vrms maximum; maximum value with full-scale input signal and volume at +12dB

Video Input & Output Connectors

Video Inputs

Five composite (RCA), five S-video and three component video (RCA)

Video Outputs

One composite (RCA), one S-video and one component (RCA)

Composite & S-Video Performance

Compatibility

NTSC, PAL and SECAM

Impedance

75 Ohms

Bandwidth

>25MHz

Component Video Performance

Compatibility

3-Channel (Y/Pr/Pb), format-independent

Impedance

75 Ohms

Insertion Loss

<3dB

Bandwidth

>150MHz

Other

Trigger Outputs

One power on/off and one programmable connector on 5-pin DIN

RS-232 Serial Input/Output

Two 9-pin D-sub connectors

Power Requirements

90 – 250 VAC, 50Hz – 60Hz, 60W (universal line input), detachable power cord

Rack-Mounting

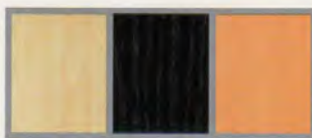
Optional brackets are available for installation in a standard 19" equipment rack (two rack units required for AV1).

Dimensions (H x W x D)

3-13/16" x 17-5/16" x 14-7/8" (97mm x 440mm x 377mm)

Weight

17 lb/7.7kg



Available in Eyesoft Beech, Black Ash or Natural Cherry, these wall-mounted speakers have nothing to hide.

The JBL logo is displayed in white, bold, sans-serif capital letters on a bright red rectangular background.

**PRO SOUND
COMES HOME™**

JBL Consumer Products
250 Crossways Park Drive, Woodbury, NY 11797 USA
8500 Balboa Boulevard, Northridge, CA 91329 USA
www.jbl.com

© 2005 Harman International Industries, Incorporated.
All rights reserved.

Part No. PERFORMLIT5/05 Printed in USA

H A Harman International Company



PERFORMANCE