

PROJECT K2[®]



PROJECT ARRAY[™]



PROJECT K2 S9800SE · S5800 · S4800 **PROJECT ARRAY** 1500 · 1400 · 1000 · 880 · 800

INTRODUCING PROJECT **K2**



PROJECT K2 S9800SE

K2 S5800

S4800

FULL BANDWIDTH AND DYNAMICS, AND EVERY EMOTION THE MUSIC POSSESSES

In every field of human endeavor, there is an ultimate objective – one of such immense difficulty that many believe it to be beyond the realm of the possible. In mountaineering, scaling the Himalayan peak K2 in the Karakoram of Pakistan is such an objective. At 8610 meters, it is the second highest mountain on Earth, and is generally acknowledged to be the most difficult and dangerous ascent of all. Still, many are irresistibly drawn to the challenge.

After successfully scaling our equivalent of that formidable mountain, we understand a little more about the complex matrix of motivations and emotions that drives the adventurer.

Our K2 was the creation of a loudspeaker that would bring the unique JBL Professional listening experience to the home in an uncompromising form.

And with the innovative Project K2 S9800, JBL engineers created a reference loudspeaker system for the 21st century. Now the all-new K2 S9800 Special Edition scales even greater heights. Effortlessly delivering the full bandwidth and dynamics of even the most demanding sources – without suppression at any listening level – Project K2 loudspeakers offer a sense of realism and sonic accuracy that will transport you to the concert hall.

It's every music lover's dream.
And now it's come true.



PROJECT K2 S9800SE K2 S5800 S4800

CUTTING-EDGE TECHNOLOGIES

JBL K2 DEVELOPMENT TEAM



TIMOTHY PRENTA
Director,
JBL Consumer
Engineering

JBL Consumer
Products



GREG TIMBERS
Chief Systems
Engineer

JBL Consumer
Products



JERRY MORRO
Senior
Transducer
Engineer

JBL Consumer
Products



DOUGLAS BUTTON
Vice
President,
Research &
Development

JBL Professional



DANIEL ASHCRAFT
President &
Creative
Director

Ashcraft Design



Die-cast-aluminum-motor unit cover with heatsinks for cooling



25mm (1") Beryllium compression driver super tweeter



75mm (3") Beryllium compression driver



Rapid-flare phase plug for minimal secondary distortion



Concert hall realism and sonic accuracy

Put simply, Project K2 is what happens when JBL's expert team of engineers is given a free hand, no budgetary constraints and unlimited access to the world's finest research and development facilities.

Taking full advantage of proprietary JBL technologies and six decades of experience in professional and consumer audio, Project K2 embodies all the pride and passion for engineering excellence passed down from JBL's founder and namesake, James B. Lansing.



1500AL Low-frequency driver

The prize-winning K2 loudspeakers draw heavily on JBL's unrivalled experience with high-sensitivity, high-performance horn systems and professional subwoofer systems. The result is an engineering tour de force with state-of-the-art sound.

Employing newly developed, cutting-edge technologies, including a next-generation Alnico woofer and a unique dual-compression-driver

high-frequency system, Project K2 consists of three reference speaker systems capable of delivering the extended musical bandwidth and exceptional dynamic performance demanded by today's advanced digital media.

Grace and ease at any listening level

Superbly detailed, outstandingly dynamic and capable of breathtaking power, the Project K2 Series will reveal crucial subtleties and emotional elements in your favorite music that you've never experienced before.

And it does so with grace and ease, even at larger-than-life listening levels.

In celebration of the success of the JBL K2 S9800, we raise the bar even higher with the K2 S9800 Special Edition by employing key sonic upgrades (aluminum-metalized polypropylene film capacitors) and an even more luxurious finish. The critically acclaimed K2 S5800 uses the advanced components and technologies expressly designed for the K2 Series in the service of your listening pleasure. And by popular demand, the S4800 brings revolutionary K2 sound and styling to small- to medium-sized rooms for superlative fidelity and musical realism.



K2

PROJECT K2 S9800SE K2 S5800 S4800

SPEC



IFICATIONS

Do you crave the performance of a full-blooded professional loudspeaker, but refuse to allow "professional" aesthetics to upset your domestic harmony?

The solution is simple: JBL Project K2.

Music lovers can now savor the magnificent authority of an orchestra in full flight or experience a rock concert recording at realistic levels through a loudspeaker designed for the home environment.

JBL K2 – The best of both worlds.



	K2 S9800SE	K2 S5800	S4800
Description	3-Way Floorstanding Speaker	3-Way Floorstanding Speaker	3-Way Floorstanding Speaker
Frequency Response	45Hz – 50kHz (–6dB)	50Hz – 40kHz (–6dB)	55Hz – 40kHz (–6dB)
Power Handling	400 Watts RMS	300 Watts RMS	300 Watts RMS
Bass Extension	35Hz (–10dB)	28Hz (–10dB)	55Hz (–6dB)
Crossover Frequencies	800Hz, 10kHz	800Hz, 10kHz	900Hz, 8kHz
Sensitivity (2.83V/1m)	92dB	95dB	93dB
Nominal Impedance	8 Ohms	8 Ohms	8 Ohms
Dimensions (H x W x D)	1295mm x 508mm x 375mm (51" x 20" x 14-3/4")	1245mm x 432mm x 413mm (49" x 17" x 16-1/4")	1067mm x 501mm x 372mm (42" x 19-3/4" x 14-5/8") (height with spike feet – 1086mm/42-3/4")
Weight	90kg/198 lb	84kg/185 lb	65kg/143 lb



K2 S9800SE BG
High-gloss-black zebrawood



K2 S9800SE WG
High-gloss mahogany



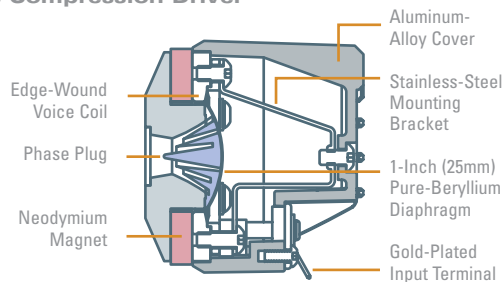
K2 S5800
High-gloss cherry



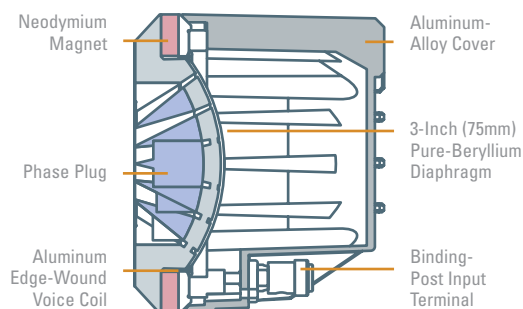
S4800
Cherry



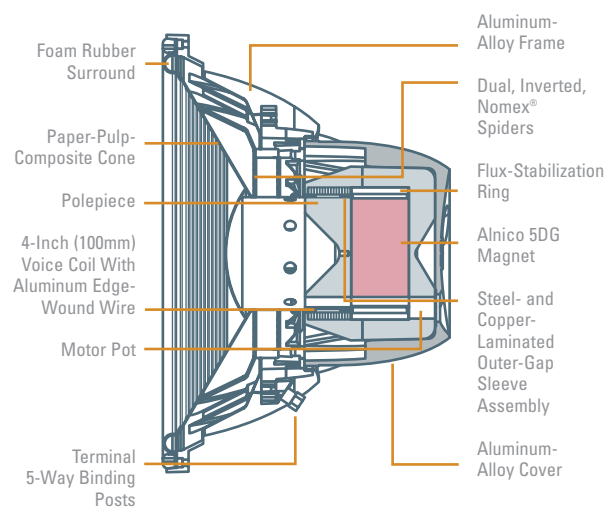
045Be Compression Driver



435Be Compression Driver

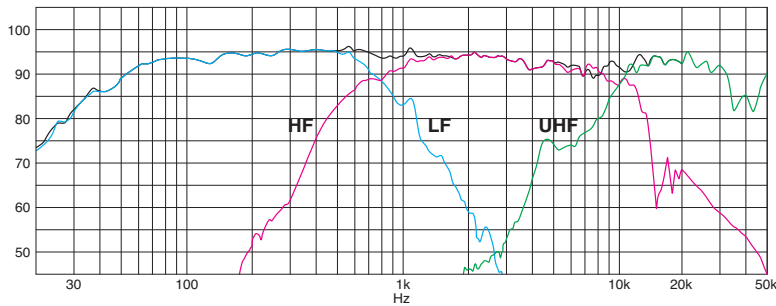


1500AL Low-Frequency Driver



PROJECT K2 S9800SE K2 S5800 S4800

COMPONENTS COME TOGETHER



In the right hands, a loud-speaker can become so much more than the mere sum of its parts

Light yet rigid materials such as titanium, beryllium and aluminum have been carefully selected for the K2 compression drivers for their speed and responsiveness.

The horns are cast in proprietary JBL SonoGlass™, an extremely dense and mechanically inert substance that is easily molded into the unusual shapes required for superior acoustic performance.

The specially developed JBL bass drivers employ a symmetrical double-damping structure of Nomex® to cancel asymmetrical, nonlinear motion, which reduces harmonic distortion. A newly developed lightweight, low-loss, EPDM foam-rubber surround ensures durability. Cone curvature is computer-modeled for maximum precision of movement.

The resonance-free K2 enclosures are crafted of highly rigid, heavily braced MDF. The flared reflex ports are optimized to eliminate resonances. Two sets of large, gold-plated binding posts allow for bi-wiring or bi-amplification.

JBL horns deliver uniform sound pressure to the listening area

JBL's Charge-Coupled Linear Definition™ system applies DC bias to the capacitor, eliminat-

ing crossover distortion at zero electric potential in the K2 S9800SE and K2 S5800. By precisely matching the roll-off of each transducer to ensure smooth, flat frequency response in the crossover range, and by achieving a swift transition between frequency ranges, the K2 Series offers an exceptionally wide vertical listening angle. A high-frequency trim switch lets the user fine-tune performance to suit personal preferences and room acoustics.

K2 S9800SE

Successor to the revered K2 S9800, the K2 S9800 Special Edition represents a significant leap forward in sound and design. Incorporating aluminum-metalized polypropylene film capacitors for enhanced clarity and detail, the K2 S9800SE is an ultra-high-end statement of striking sculptural



elegance, available in luxurious wood-gloss and black-gloss finishes.

The K2 S9800SE employs a 380mm (15") (1500AL) woofer with ribbed Aquaplas-coated pulp cone, Alnico magnet and 100mm (4") edge-wound voice coil. Aquaplas applied to the rear periphery of the cone helps to

eliminate distortion at high power levels. A Symmetrical Field Geometry™ (SFG™) circuit creates vertical symmetry and generates a constant magnetic-flux density across the width and length of the voice-coil gap. The 75mm (3") beryllium (435Be) high-frequency compression driver features an Aquaplas-coated diaphragm and 25mm-throat Bi-Radial® horn. The 25mm (1") beryllium (045Be) super-tweeter compression driver is mounted in a 12.8mm (0.5"), throat Bi-Radial horn.

The K2 S9800SE crossover can be bypassed for active bi-amplification via an external crossover.

Horns are cast in JBL's proprietary SonoGlass™ material

K2 S5800 and 4800

Both speakers are fitted with a 75mm (3") aluminum-diaphragm compression driver (435Al) and a 25mm (1") titanium-diaphragm compression driver (045Ti). Both drivers employ aluminum ribbon voice coils and neodymium magnets for high output, high sensitivity and high durability.

The K2 S5800 380mm (15") (1500FE) and S4800 300mm (12") (1200FE) bass drivers are designed for large excursion and power linearity with ferrite magnets and JBL's new SFG magnetic circuit.

THE MUSIC, REVEALED



1940's NYLON STOCK- INGS, FILM NOIR, THE DAWN OF 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 Hartsfield 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, 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.



1990's
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.



TODAY
WITH PROJECT ARRAY, JBL introduces the first of an innovative new generation of high-performance loudspeakers that combine advanced compression drivers and direct radiation technology. Derived directly from JBL Professional systems at use in movie theaters and concert venues worldwide, Project Array speakers are built for the ultrahigh-frequency sampling rates of the newest digital sources, including SACD™. And the unconventional design ensures that you'll actually hear all the nuances of the original performance.



PROJECT



INTRODUCING

PROJECT ARRAY 1500 · 1400 · 1000 · 880 · 800

ARRAY



1400 Array

1000 Array

800 Array

880 Array

1500 Array

JBL Pro Cinema Comes Home™



PLUS X AWARD™

You may never have seen anything like them. But you've been hearing something very much like them for years – behind the screen of your favorite movie theater and overhead in the rigging at major concert events. Now JBL Project Array brings professional venue-style speakers home for the first time.

Project Array loudspeakers are professional designs optimized to create a home theater to please the most demanding Hollywood director or composer. If movies are an important part of your life, you'll appreciate the difference. More important, you'll enjoy the professionally inspired, audiophile-grade sound on a daily basis.



ARR



AY **PROJECT ARRAY** 1500 • 1400 • 1000 • 880 • 800 **PRO SOUND**

JBL leads the world in the design and manufacture of professional audio equipment. JBL is how movie soundtracks and music recordings are created, mixed and mastered. JBL is how audio professionals work with sound, and how the rest of the world hears it. Live or recorded, indoors or out, JBL has set the standard of realism for 60 years.



Classic JBL high- and ultra-high-frequency sound and pulse-pounding bass

Now Project Array brings the JBL Pro Sound home. With the technologies professionals are accustomed to and the uncompromised quality they insist upon, Project Array is home entertainment to delight the most critical listeners, including those who listen for a living.



One (often-overlooked) key to realistic, full-spectrum dynamics and 360-degree imaging is constant directivity from high-frequency drivers. While bass and midrange frequencies can survive some interaction with walls and furniture, high and ultrahigh frequencies are greatly diminished by it, especially at high listening levels.

A new level of dimensional accuracy and tonal and dynamic realism

JBL Project Array floor-standing loudspeakers employ advanced Aquaplas-treated high-frequency transducers and titanium-diaphragm ultra-high-frequency



drivers in an extremely dense and rigid free-standing horn. The unconventional look of the horn assembly produces an equally unconventional sound: brilliantly clean highs, into the ethereal realm of 40kHz, delivered directly to the listener's ears.

The straighter the path from the high-frequency transducers to your ears, the better and more lifelike the sound.

Constant-directivity horns deliver massive yet highly accurate sound

Combining our proprietary horn systems with a fast bass driver in the time-honored JBL Professional tradition, Project Array brings a new level of dimensional accuracy to the tonal and dynamic realism JBL is justly famous for. Project Array is the latest innovation from Greg Timbers, JBL's chief systems engineer, who has been behind many acclaimed and award-winning loudspeakers over the years, including the 43 Series monitors and Project K2.



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JBL

JBL Incorporated
Cambridge, California, U.S.A.

PROJECT ARRAY 1500 • 1400 • 1000 • 880 • 800

NUMBER ONE ENGINEERING



Project Array draws on more than half a century of innovative JBL engineering

Aluminum compression driver

The neodymium motor and edge-wound voice coil of Kapton®-encapsulated aluminum wire drive a 75mm (3") Aquaplas-treated aluminum dome mounted in a rigid, constant-directivity horn. This is the secret behind the three-dimensional imaging of JBL Project Array.



Titanium super tweeter

The edge-wound voice coil attached directly to a 25mm (1") titanium diaphragm and driven by a 50mm (2") neodymium motor assembly delivers uniform response out to 40kHz. The vertical SonoGlass constant directivity horn maintains an optimum dispersion pattern of 60 degrees x 30 degrees.

Classic JBL bass drivers

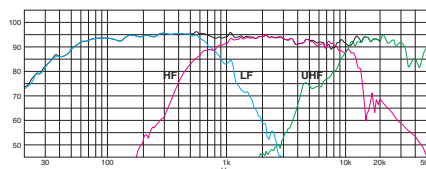
The Project Array woofers are all based on acclaimed JBL Professional bass drivers. They employ massive ferrite motor assemblies, edge-wound copper voice coils and durable rubber surrounds to drive an essentially inert Aquaplas-coated pulp-cone assembly. Built to play loud and long, they proudly reflect their professional heritage.

Unique enclosure

The trapezoidal low-frequency internal enclosure is constructed of heavily braced 1-1/2" MDF. A raised-top cavity minimizes diffraction from the exposed high-frequency horn. Brass spikes couple the external enclosure to the floor. Project Array lives up to JBL's long-standing reputation for rugged construction. All Array loudspeakers are available in the same rich, luxurious black zebrawood finish as the K2 S9800 Special Edition.

Seamless system integration

Project Array crossovers use 4th-order acoustic transitions, ultralow-loss inductors and polypropylene capacitors. The high and ultrahigh crossover sections are isolated on a separate board in a different section of the enclosure to minimize crosstalk with the low-frequency crossover.



Flexible system building

1400 ARRAY is a three-way floorstanding design featuring the LE14H-3 350mm (14") Aquaplas-treated pulp cone driver with 100mm (4") copper voice coil, the 045Ti 25mm (1") pure-titanium compression driver and the 435AL-1 75mm (3") Aquaplas-treated aluminum-dome compression driver.

1000 ARRAY is a three-way floorstanding design featuring the Array 10 250mm (10") polymer-treated pulp-cone driver with 38mm (1-1/2") copper edge-wound voice coil, the 045Ti 25mm (1") pure-titanium compression driver and the 175Nd-3 44mm (1-3/4") Aquaplas-treated aluminum-dome compression driver.

800 ARRAY is a three-way bookshelf design featuring the Array 8 200mm (8") polymer-treated pulp-cone driver with 38mm (1-1/2") copper voice coils wound on an aluminum former, the 045Ti 25mm (1") pure-titanium compression driver and the 175Nd-3 44mm (1-3/4") Aquaplas-treated aluminum-dome compression driver. The dual bass drivers are mounted on angled baffles in an independent trapezoidal enclosure.

880 ARRAY is a three-way dedicated center loudspeaker featuring dual Array 8C 200mm (8") polymer-treated pulp-cone drivers with 38mm (1-1/2") copper edge-wound voice coils, the 045Ti 25mm (1") pure-titanium compression driver and the 435AL 75mm (3") Aquaplas-treated aluminum-dome compression driver.

1500 ARRAY is a potent subwoofer capable of heart-stopping deep bass. It incorporates a powerful W1500H 380mm (15") bass driver with 100mm (4") copper edge-wound voice coil and a dedicated 1000-watt Class D digital power amplifier mounted in a trapezoidal enclosure.

ARRAY

PROJECT ARRAY 1500 · 1400 · 1000 · 880

SPECIFICATIONS



	Description	Frequency Response	Power Handling	Sensitivity (1W @ 1m)	Nominal Impedance
1400 Array	3-Way, 350mm (14") Floorstanding Speaker	32Hz – 40kHz	300 Watts	89dB	8 Ohms
1000 Array	3-Way, 250mm (10") Floorstanding Speaker	35Hz – 40kHz	200 Watts	89dB	8 Ohms
800 Array	3-Way, 200mm (8") Bookshelf Speaker	55Hz – 40kHz	200 Watts	88dB	8 Ohms
880 Array	3-Way, Dual 200mm (8") Center Speaker	70Hz – 40kHz	200 Watts	90dB	8 Ohms
1500 Array	375mm (15") 1000W Front-Firing Sub	25Hz – 400Hz, variable	N/A	N/A	N/A

800 ONS



A Message From Greg Timbers, JBL's Chief Systems Engineer

I've long been a fan of compression-driver systems. They have a speed and effortlessness unmatched by direct-radiator systems. Current hardware is very low in distortion, has smooth frequency response and can be designed to have very smooth, consistent directivity patterns. However, I've always felt that, as good as the three-dimensional image provided by these systems is, it could be even better.

Since many of the best sounding direct-radiator systems have minimal baffle areas, particularly around the mid- and high-frequency drivers, it was reasonable to conclude that minimizing baffle area and diffraction around a horn might improve imaging and frequency response. This is the major design concept behind the Array Series. The horn has been oriented to minimize width, and to position the diffraction slot within the horn in the vertical plane. Next, the top of the LF enclosure has been cut away so the horn is nearly freestanding. The horn enclosure is minimal and heavily windswept, again to minimize diffraction. The final major feature is the capability of the horn to be moved forward or back without creating baffle discontinuities. This allows the horn HF and LF driver to be lined up in the depth direction to achieve the best time behavior over a large frequency range. This also allows the drivers to be "in polarity" in addition to "in phase" at the crossover point. The sum total of these main features is a loudspeaker system with the speed and dynamics of a compression-driver system, but with the smoothness and imaging of the best direct-radiator and panel systems.

The industrial design of the system was quite a challenge. Having established a number of important criteria regarding the relative location and packaging of each transducer, it became necessary to consider a less conventional design. The LF enclosure needed to be heavy, solid and vibration free. In addition, it needed to allow the horn module to sit as low as possible to reduce the center-to-center distance between the LF and HF drivers. The horn itself is molded from a high-density resin material using an extremely thick wall section. This makes the horn heavy and acoustically inert. The horn is mounted directly to the top of the LF enclosure in a rigid manner. Experiments during development revealed that decoupling the horn from the LF enclosure adversely affected the three-dimensional image. The horn enclosure is molded in structural foam, again with a thick wall section.

The woofer section and high-frequency horn section are acoustically joined by a sophisticated crossover network. The low-frequency and high-frequency sections of the network are located on separate circuit boards mounted in different places within the enclosure to minimize interference between the different filter sections of the crossover. The acoustic-crossover slopes are all 4th order (24dB/octave), and the horn-module location has been optimized in the depth location for minimum time error over a large frequency range.

The 880 Array (center channel) has been designed to have the same timbral and phase behavior as the tower systems. This is essential in a multichannel setup to ensure proper decoding of the source material, which was most probably mixed using identical speakers at all positions. Five (or seven) identical speakers are the best way to re-create the sound space that the authors of the recording intended. Unfortunately, the size and cost of five front speakers are often problematic. A large center speaker is also a major problem for anything but a perforated front-projection screen. Designing a compact yet powerful dedicated center speaker is quite a challenge, particularly when the other models in the lineup perform so well. Obviously, using identical or similar transducers is very important. It's also necessary to match frequency response, directivity response, distortion characteristics and phase response. In the case of the Array Series, all four models have been optimized to work with each other in any combination of front, center and rear.

We feel the new Array Series exemplifies the best of JBL's tradition and heritage, while clearly taking advantage of our ultramodern research and development facility. We hope you'll enjoy every minute of listening.

Regards,
Greg Timbers
JBL Chief Systems Engineer

Dimensions (H x W x D)	Weight
1181mm x 394mm x 483mm 46-1/2" x 15-1/2" x 19"	52kg/115 lb
1105mm x 311mm x 432mm 43-1/2" x 12-1/4" x 17"	32kg/70 lb
743mm x 273mm x 356mm 29-1/4" x 10-3/4" x 14"	18kg/40 lb
311mm x 730mm x 279mm 12-1/4" x 28-3/4" x 11"	21kg/46 lb
584mm x 495mm x 483mm 23" x 19-1/2" x 19" 533mm (21") Deep with grille	57kg/125 lb

PRO SOUND COMES HOME™



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