

PRO SOUND  
COMES HOME™

PROJECT K2  
PROJECT ARRAY™



PROJECT K2 S9800 · S5800 · S4800 PROJECT ARRAY 1500 · 1400 · 1000 · 880 · 800



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INTRODUCING PROJECT **K 2**



PROJECT K 2 S9800

K 2 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 28,250 feet, 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 own equivalent of that impossible mountain, we understand a little more about the complex matrix of motivations and emotions that drives the adventurer.

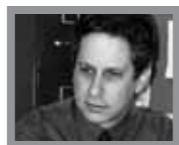
Our K2 was the creation of a loudspeaker that would bring the unique JBL professional listening experience to the home in an uncompromising form.

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



PROJECT K 2 S9800 K 2 S5800 S4800

# CUTTING-EDGE TECHNOLOGIES



**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 back cover with heat sinks for rigidity and cooling



1" cast-Beryllium compression driver super tweeter



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 the JBL 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 five decades of experience in professional and consumer audio, Project K2 embodies all the pride and passion for engineering excellence passed down from JBL founder and namesake, James B. Lansing.



The prize-winning K2 loudspeakers draw heavily on unrivalled JBL 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 relaxed 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 have never experienced before.

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

With the flagship Project K2 S9800, JBL's engineers have created a reference loudspeaker system for the 21st century. 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.



# K 2

PROJECT K 2 S9800 K 2 S5800 S4800

# SPECIFICATIONS



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

The answer 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.



	K 2 S9800	K 2 S5800	S 4800
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)	94dB	95dB	93dB
Nominal Impedance	8 Ohms	8 Ohms	8 Ohms
Dimensions (H x W x D)	51" x 20" x 14-3/4" (1295mm x 508mm x 375mm)	49" x 17" x 16-1/4" (1245mm x 432mm x 413mm)	42" x 19-3/4" x 14-5/8" (1067mm x 501mm x 372mm) (height with spike feet - 42-3/4" / 1086mm)
Weight	90 kg/198 lb	84 kg/185 lb	65 kg/143 lb



S9800 Dark Gray

Mid Gray

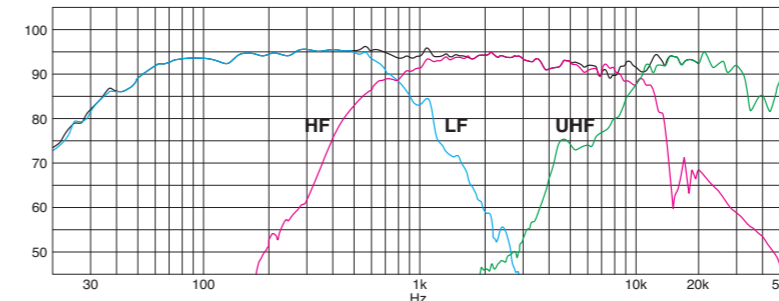
Wood Grain

S5800

S4800

PROJECT K 2 S9800 K 2 S5800 S4800

# COMPONENTS COME TOGETHER



In the right hands, a loudspeaker 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, non-linear motion, which reduces harmonic distortion.

A newly developed lightweight, low-loss, EPDM foam-rubber surround ensures long-term 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

The unique JBL Charge Coupled Linear Definition™ System applies DC bias to the capacitor, eliminating crossover distortion at zero electric potential in the K2 S9800 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 S9800

The K2 S9800 employs a 15" (1500AL) woofer with ribbed Aquaplas-coated pulp cone, Alnico magnet and 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 3" beryllium (435Be) high frequency compression driver features an Aquaplas-coated diaphragm and 25mm-throat Bi-Radial® horn. The 1" beryllium (045Be) super-tweeter compression driver is mounted in a 12.8mm-throat Bi-Radial horn.

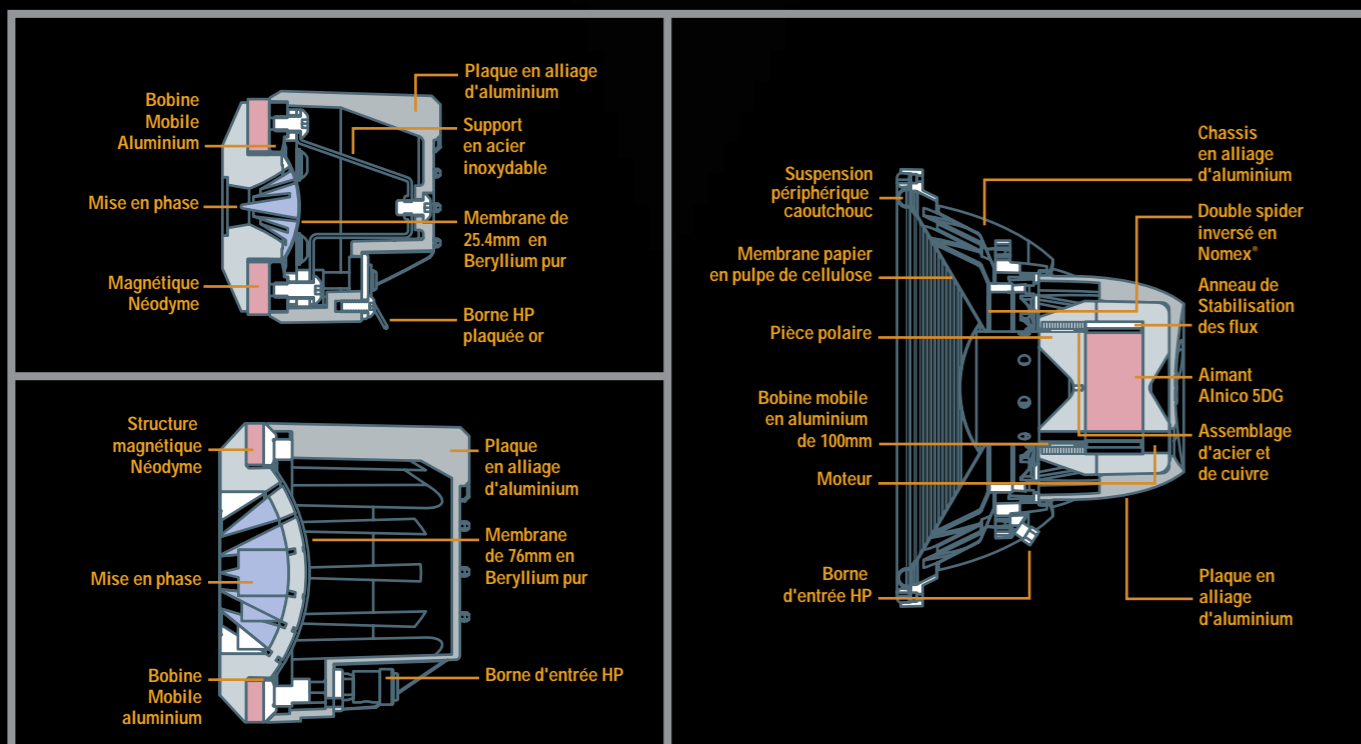
The K2 S9800 crossover can be bypassed for active bi-amplification via an external crossover.

## Horns are cast in JBL proprietary SonoGlass™ material

### K2 S5800 and 4800

Both speakers are fitted with a 3" aluminum-diaphragm compression driver (435Al) and a 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 15" (1500FE) and S4800 12" (1200FE) bass drivers are designed for large excursion and power linearity with ferrite magnets and JBL New SFG magnetic circuit.



# THE MUSIC, REVEALED



## 1940's

NYLON STOCKINGS, 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.



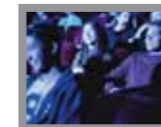
## 1960's

VIETNAM, WOODSTOCK, SPACE. JBL introduces the legendary 4320. With a high-frequency compression driver and acoustic lens in a four-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.



## 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.



INTRODUCING  
PROJECT ARRAY 1500 · 1400 · 1000 · 880 · 800

# PROJECT ARRAY



1400      1000      880      800      1500

JBL Pro Cinema Comes Home™



You may never have seen anything like them. But you have 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 will appreciate the difference. More important, you will enjoy the professionally inspired, audiophile-grade sound on a daily basis.



# ARRAY PRO SOUND

PROJECT ARRAY 1500 · 1400 · 1000 · 880 · 800



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 more than 50 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 chief systems engineer, who has been behind many acclaimed and award-winning loudspeakers over the years, including the 43 Series monitors and Project K2.

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 3-inch Aquaplas-treated aluminum dome mounted in a rigid, constant-directivity horn. This is the secret behind the three-dimensional imaging of JBL Project Array.

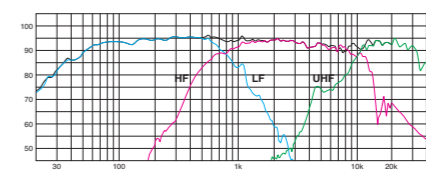


**Titanium super-tweeter**  
The edge-wound voice coil attached directly to a 1-inch titanium diaphragm and driven by a 2-inch neodymium motor assembly delivers uniform response out to 40kHz. The vertical SonoGlass constant directivity horn maintains an optimum dispersion pattern of 60 degrees x 30 degrees.

**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 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 the longstanding JBL reputation for rugged construction.

**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 floor-standing design featuring the LE14H-3 14" (350mm) Aquaplas-treated pulp cone driver with 4" copper voice coil, the 045Ti 1" pure-Titanium compression driver and the 435AL-1 3" Aquaplas-treated aluminum-dome compression driver.

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

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

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

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

# ARRAY SPECIFICATIONS

PROJECT ARRAY 1500 · 1400 · 1000 · 880 · 800



## 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

	Description	Frequency Response	Power Handling	Sensitivity (1W @ 1m)	Nominal Impedance	Dimensions (H x W x D)	Weight
	1400 3-Way, 350mm (14") Floorstanding Speaker	32Hz – 40kHz	300 Watts	89dB	8 Ohms	1181mm x 394mm x 483mm 46-1/2" x 15-1/2" x 19"	52 kg/115 lb
	1000 3-Way, 250mm (10") Floorstanding Speaker	35Hz – 40kHz	200 Watts	89dB	8 Ohms	1105mm x 311mm x 432mm 43-1/2" x 12-1/4" x 17"	32 kg/70 lb
	800 3-Way, 200mm (8") Bookshelf Speaker	55Hz – 40kHz	200 Watts	88dB	8 Ohms	743mm x 273mm x 356mm 29-1/4" x 10-3/4" x 14"	18 kg/40 lb
	880 3-Way, Dual 200mm (8") Center Speaker	70Hz – 40kHz	200 Watts	90dB	8 Ohms	311mm x 730mm x 279mm 12-1/4" x 28-3/4" x 11"	21 kg/46 lb
	1500 375mm (15") Front-Firing Sub	25Hz – 400Hz, variable	N/A	N/A	N/A	584mm x 495mm x 483mm 23" x 19-1/2" x 19" 533mm (21") Deep with grille	57 kg/125 lb