PRO SOUND
COMES HOME™

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A Harman International Company

PROJECT K2 S5800

3-WAY, DUAL-WOOFER
FLOORSTANDING SPEAKER
SYSTEM

THE PROJECT K2 S5800. 3-WAY, DUAL-WOOFER FLOORSTANDING SPEAKER SYSTEM

ALL AUDIO SUPERLATIVES APPLY.

The newest digital media, DVD and SACD, far surpass traditional audio in frequency response and dynamic range, placing unprecedented performance demands on loudspeaker systems. An innovative solution was needed to meet the challenges of the new technology. JBL called on its senior engineering team – Timothy Prenta, Greg Timbers, Jerry Moro and Douglas Button – to design a loudspeaker system capable of accurately and precisely reproducing the newest recordings. By inventing new techniques, such as a SonoGlass™ combination horn that serves both the ultrahigh- and high-frequency transducers, and by drawing upon JBL's half century of experience, the team produced a loudspeaker that embodies the state of the art.

The K2 project exists to research both longstanding and newly emerging acoustic problems and develop a toolbox of solutions. The full panoply of the K2 technologies, which were designed to address the needs of wide bandwidth and dynamic audio, was drawn upon and applied in the design of the K2 S5800.

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3-WAY/4-DRIVER, DUAL-WOOFER CONFIGURATION ENABLES WIDE-RANGE REPRODUCTION.

JBL engineers selected the Symmetrical Vertical Array (virtual coaxial) technique, which delivers precise imaging and an exceptionally panoramic soundstage. The horn and high-frequency compression driver are located in the middle of the baffle, and two low-frequency transducers sandwich the horn plus driver. An ultrahigh-frequency "super tweeter" was added to balance the sound of the traditional 2-way design by enabling wider frequency range reproduction.

1200FE: 12" KEVLAR®-COMPOSITE CONE WOOFER

The 12-inch 1200FE low-frequency transducer is the culmination of JBL's experience in providing the woofer of choice for a variety of commercial applications, including concert tours, sports arenas, amusement parks, movie theaters and small restaurants and clubs. The 1200FE is constructed of a Kevlar-composite cone, which is a mixture of Kevlar fiber and pulp material with excellent rigidity for tight, responsive bass. An Aquaplas coating is applied on the rear side of the cone in order to minimize breakup and distortion. A double spider is used for its high linearity. The SFG™ (Symmetrical Field Geometry) magnetic gap design results in uniform flux and smooth excursions. An aluminum-ribbon edge-wound voice coil, vented polepiece for effective heat dissipation, and rigid aluminum die-cast frame all work to minimize distortion.

435AL: ALUMINUM-DIAPHRAGM COMPRESSION DRIVER

A 3-inch aluminum-diaphragm 435AL compression driver was chosen for the high frequencies. Its lightweight aluminum-ribbon voice coil and high-magnetic-flux neodymium magnet can handle power over extended listening sessions while reproducing dialogue and instruments with extreme clarity. A rapid-flare-type phase plug, which is also used in JBL Professional models, reduces second-order harmonic distortion.

045TI: TITANIUM-DIAPHRAGM COMPRESSION DRIVER

A 1-inch pure-titanium diaphragm 045TI compression driver handles the ultrahigh frequencies. One of the most rigid yet lightest materials known, titanium performs exceptionally well in the highest frequencies without causing fatigue. The pure-titanium diaphragm and surround are formed in one piece, and then this piece and the lightweight aluminum-ribbon-wire voice coil are joined for increased rigidity and responsiveness to transient signals, such as cymbal crashes. The high-magnetic-flux neodymium magnet circuit provides both high sensitivity and high durability.

BI-WIRE/BI-AMP-CAPABLE NETWORK

Separate crossover networks are used for the LF and HF-UHF ranges. Only carefully selected, high-quality component parts are used. By precisely matching the roll-off of each transducer to ensure smooth and flat frequency response in the crossover range, the topology of the network itself can be simplified to preserve signal quality. JBL's unique Charge Coupled Linear Definition™ System applies DC bias to the capacitor, to eliminate crossover distortion at zero electric potential. Two sets of gold-plated binding posts allow bi-wiring and active bi-amplification by mode selection. A high-frequency trim switch enables high-frequency level adjustment.

SONOGLASS™ COMBINATION HORN WITH 2 DRIVERS

Highly dense and rigid SonoGlass, which can be precision-molded, combines the high-frequency and ultrahigh-frequency horns into a newly designed one-piece structure. This design setup of the two drivers optimizes the Symmetrical Vertical Array configuration, achieving the wide range for the higher frequencies that is required by today's music. Three-dimensional curved ribs are used at both ends of the horn assembly to control acoustic diffraction at the horn projection.

SLIM MDF ENCLOSURE WITH SMALL FOOTPRINT

Highly rigid medium-density fibreboard is used for the enclosure. While a slim design with a small footprint was used, internal bracing provides strength and eliminates resonances and cabinet colorations. Large foot spikes mechanically decouple the speaker from the floor, further minimizing unwanted resonances. A rich, genuine mahogany veneer cabinet with a high-gloss mirror finish will satisfy the most demanding interior designer.

S5800 SPECIFICATIONS

Description	3-Way floorstanding
Transducers	Dual 12-inch 1200FE Kevlar®-composite-cone woofers 3-Inch 435AL aluminum high-frequency compression driver 1-Inch 045TI pure-titanium ultrahigh-frequency compression driver
Impedance	8 Ohms
Maximum Recommended Amplifier Power*	300W RMS
Sensitivity	95dB (2.83V/1m)
Frequency Response	50Hz – 40kHz (–6dB)
Bass Extension	28Hz (–10dB)
Crossover Frequency	800Hz, 10kHz
Dimensions (H x W x D)	49" x 17" x 16-1/4" (1245mm x 432mm x 413 mm)
Weight	185 lb (84kg)

* The maximum recommended amplifier power rating will ensure proper system headroom to allow for occasional peaks. We do not recommend sustained operation at these maximum power levels.

All features and specifications are subject to change without notice.