

psb



WORLD CLASS



PSB has solved the dilemma between objective measurement and subjective evaluation. Having learned over the last ten years what objective criteria are necessary for good subjective results, Paul Barton has designed a product that is the epitome of good design, where form follows function.

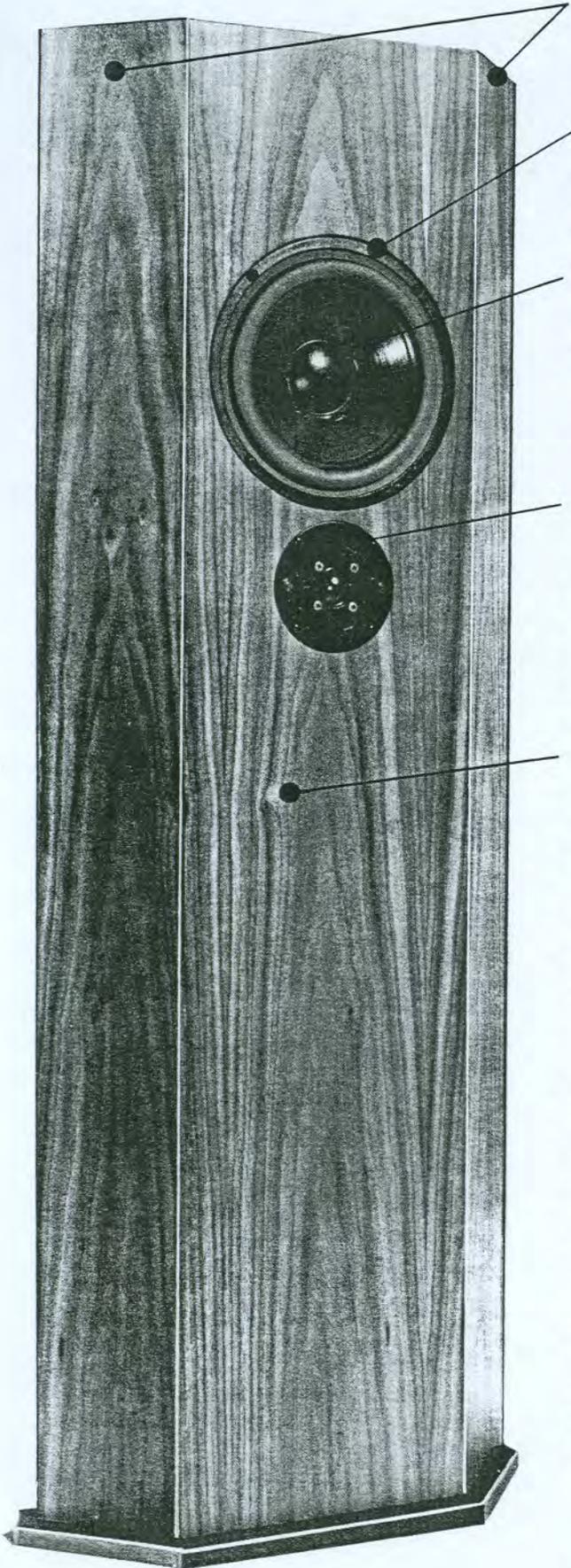
Psychoacoustic experts have determined that flat frequency response is the single most important aspect of a loudspeaker's performance. This is followed by dispersion of that frequency response, intermodulation (Doppler) and harmonic distortion, dynamic range, power handling and phase response.

Engineers have been striving to solve these problems. Many have been solved individually, but rarely in one individual product. Nevertheless, the engineers have shared their findings with others and, as a result, we have the synthesis in a new product. Even under the rigours of blind screen listening tests, it ranks as one of the best.

Blind screen listening tests are the most revealing means of evaluating the subjective performance of one product with another. It removes from listening the bias of brand, price, size, and design, and leaves only the sound. The volume levels are matched exactly, before the amplifier. All types of music work. And the results are repeatable. It is costly and time consuming, but it tells us the relative quality of one product versus another. And we've listened to a lot in ten years.

Project B2 has come through these tests very well indeed. Those familiar with the "liveness" of music will be pleased. The ease and clarity of music in its natural environment conveyed by these loudspeakers has prompted remarks like "three dimensional", "very natural", "clear and uncoloured". The bass is tight and extended. The image, unshakeable.

The proof is in the listening.



LOW DIFFRACTION PANELS:

In the midrange and highs **Project B-2** becomes an infinite baffle, with no protrusions which smear the stereo image, or degrade the smoothness of its output. This enables this loudspeaker to image like no other.

VIBRATION DECOUPLING:

The specially designed mounts which position the woofer absorb the vibrations normally transmitted to the cabinet from the woofer. The result is the woofer, not the cabinet, is the only source of the music.

LOW-MID FREQUENCY LOUDSPEAKER:

The highest standards of quality are met in this woofer. It is mounted in a very strong and rigid cast alloy basket. The woofer motor is wound on an 1-1/2" aluminum voice coil which can dissipate large amounts of heat. The result is an ability to handle high levels of amplifier power, and helps to make this loudspeaker very reliable. The plastic laminated compressed fibre woofer cone prevents colourations in the midrange. It is consistent and hermetically sealed from the elements.

HIGH FREQUENCY LOUDSPEAKER:

The unique design of this dome tweeter allows for smooth, uncoloured hemispherical output. This driver's diaphragm exhibits the same properties as the human eardrum. The tweeter motor is suspended in the magnetic structure with a high viscosity heat conductive fluid, which damps out the fundamental resonance, and maintains a constant temperature of the voice coil. This allows the tweeter to handle large amounts of power and also provides a linear response which means the loudspeaker's balanced sound doesn't change with different listening levels.

SYSTEM ENCLOSURE:

Many overlook the importance of the enclosure to a high fidelity loudspeaker's performance. If the enclosure is not extremely strong and rigid it will seriously degrade the sound by creating its own output. PSB has eliminated this problem by doing many things in this loudspeaker. The enclosure walls are constructed with special high density particle board. A thick damping pad is laminated to the inside wall with a mastic compound. Attached to this is sound absorbing glass fibre board. In addition **Project B-2** has two internal side panel stiffeners, four internal panel braces, and two external panel braces. The quality of construction of this enclosure is second-to-none, and the result is the cabinet has no influence to the music.

DIVIDING NETWORK:

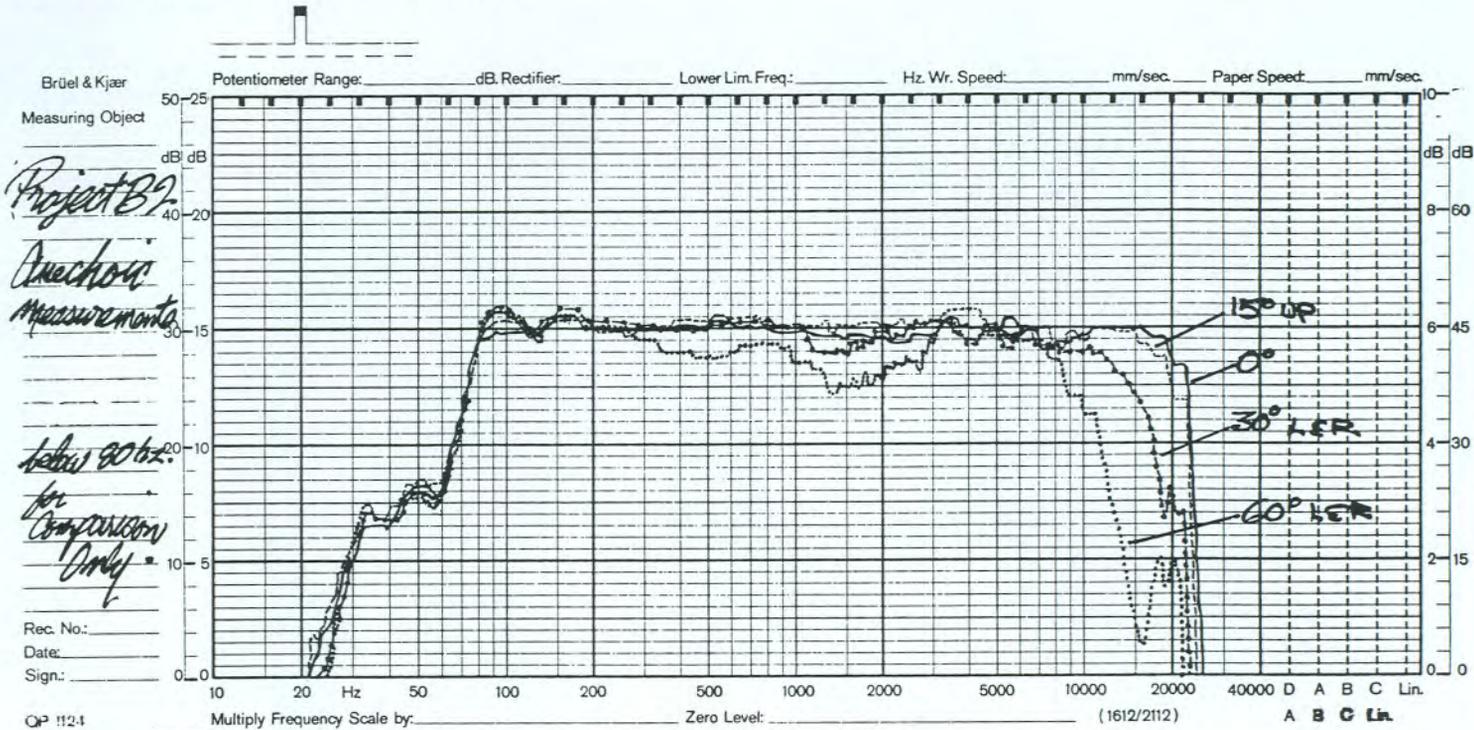
Project B-2 has an 18 element acoustic Butterworth crossover, and this loudspeaker is acoustically phase aligned in the listening area. The crossover printed circuit board is of the ground plane design and all of its components are low distortion and have high power capabilities. This crossover also incorporates a tweeter anti-resonance circuit and a computer grade mylar bypass, which makes this loudspeaker's frequency response extended and maximally flat.

GRILL:

Project B-2 has a unique specially designed grill assembly, which is not only aesthetically pleasing, but is also technically correct. The grill is acoustically transparent. The grill also has no frame or protrusions, which act like obstacles for the tweeter's output. The result is a truly accurate image, which is not plagued with second source reflections.

project B2

SPECIFICATIONS PROJECT B-2



Room Frequency Response 28 Hz to 21 kHz*

Anechoic Frequency Response ± 1db, 80 Hz to 20 kHz (0°) **

Directional Characteristics ± 1db, 80 Hz to 15 kHz (15° UP)
 ± 2db, 80 Hz to 13 kHz (30° L + R)
 ± 3db, 80 Hz to 10 kHz (60° L + R)

Sensitivity 1 watt @ 1 meter = 88db (0°)

Dynamic Power Range This speaker will handle the power of amplifiers rated from 20 watts to 200 watts R.M.S., driven to clipping 10% of the time.

Nominal Impedance 8 ohms

DIVIDING NETWORK

18 element acoustic Butterworth incorporating air core inductors, high voltage bi-polar condensers, high frequency electrolytic by-pass.

Crossover Frequency 2200 Hz

LOW-MID FREQUENCY LOUDSPEAKER

Diameter 200mm

Motor Assembly 38mm aluminum bobbin
 2 - layer copper voice coil
 .8kg ceramic magnetic

Cone plastic laminated compressed felt

Suspension critically damped rubber foam

HIGH FREQUENCY LOUDSPEAKER

Diameter 25mm

Motor Assembly 25mm aluminum bobbin
 copper voice coil
 .28kg ceramic magnet

Diaphragm low profile polyamide dome

Damping D-10 ferrofluid

GENERAL

Dimensions 122cm (H) x 47cm (W) x 34.3cm (D)
 (48" x 18.5" x 13.5")

Weight (Shipping) 32kg (70 lbs)

Grill acoustically transparent cloth laminant

Finish selected American Walnut veneer
 selected White Oak veneer

Dealer:

psb speakers inc

480 DUTTON DRIVE • WATERLOO, ONTARIO • N2L 4C6

519•884•5440



* Room frequency response referred to is the typical response which could be expected from this speaker in a home listening environment with reasonable acoustics.

** Plotted in the anechoic chamber of the National Research Council, a Canadian government sponsored laboratory in Ottawa, Ontario. Employing the very latest technological methods, NRC is one of the finest facilities available today for testing and research. Lower response limit of the NRC is 80 Hz; plotted response under 80 Hz is not accurate and used for comparison only.