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SPEAKERS

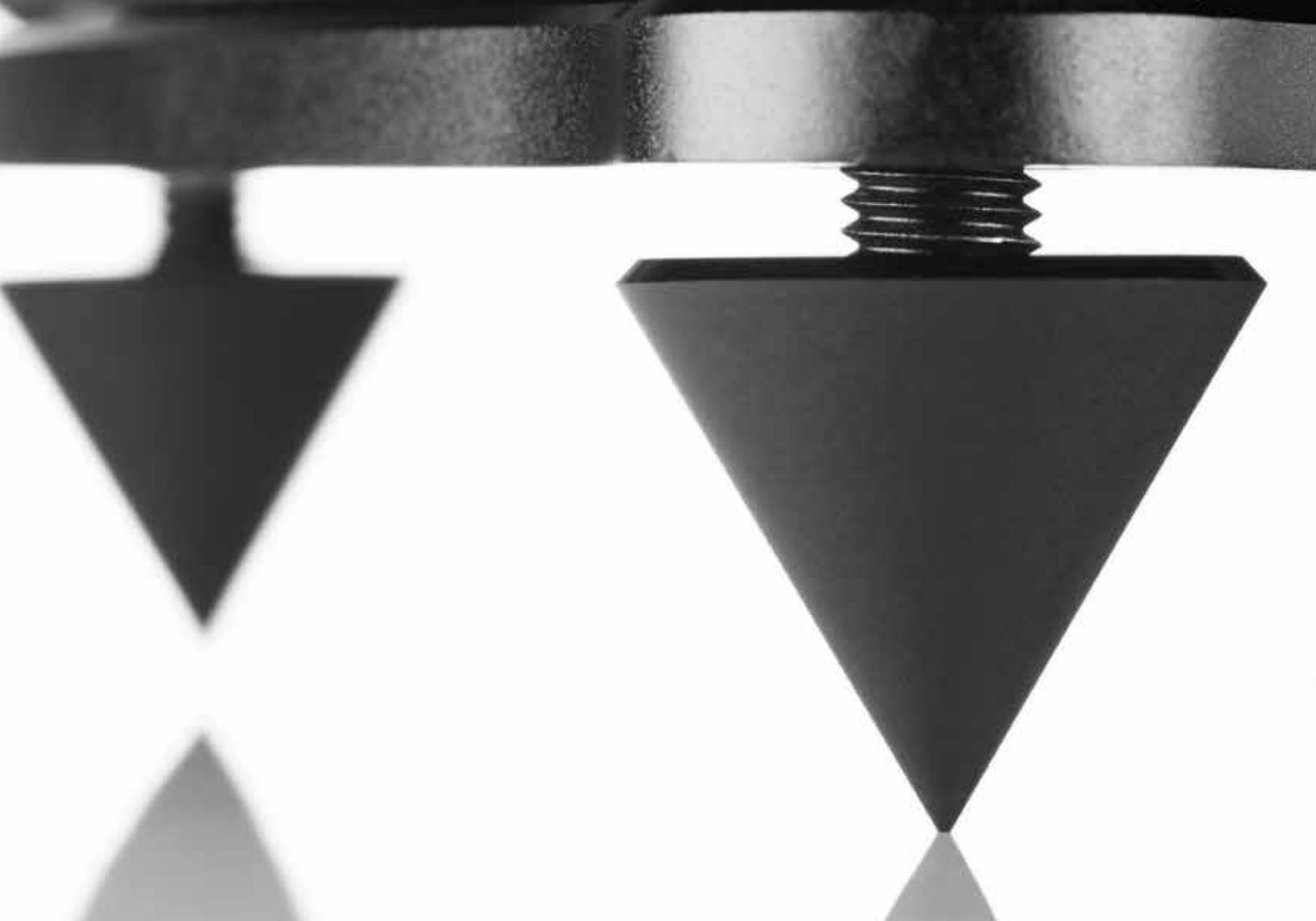
IMAGINE T3

MUSIC LIVES HERE

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Imagine T3

If there has ever been a speaker that represents the latest and most advanced thinking of PSB loudspeaker design, it is the new premium Imagine T3. PSB's refined designs always consider the large effect that a room has on the sound of any loudspeaker; our design engineers ensured that the T3 performs cleanly and predictably in the listening room. The Imagine T3 is a spectacular display of clean, well-integrated bass response and pinpoint imaging. The perfect proportion of Sound Power, combined with extremely even frequency response and uniform off-axis response, creates a massive, effortless sounding and precisely detailed sound field.





Three Woofers are Better than One

Three 7-inch woofers are arranged in PSB's three-woofer transitional array, where all the woofers combine to produce the longest wavelengths of sound in the lowest frequencies. At higher musical frequencies, woofers are strategically attenuated until only the woofer adjacent to the midrange is active, creating a perfect transition with uniform off-axis response. The position of each woofer, and the exact crossover slope, has been carefully optimized to reduce first acoustic reflections, also known as 'floor bounce'. Floor bounce is responsible for response irregularities, and occurs for all speakers unless compensated for, as in the Imagine T3. Another advantage to using multiple woofers is more efficient transfer of energy into the air compared to a single larger woofer. The varying positions also tend to excite a broader spectrum of room resonances, thus preventing the 'one note bass boom' that often occurs with powerful full-range speakers. Utilizing smaller cones with large motors results in higher sensitivity and more accurate piston motion of the cone for faster transient response and lower distortion.



Individual Bass Chambers Suppress Unwanted Resonances

The Imagine T3's tall and slender cabinet not only looks great, but also places the more directional tweeter right at ear level for best imaging. When used as bass chambers, however, tall narrow enclosures tend to have a serious 'pipe resonance' that can ruin bass transients and performance. PSB addresses this issue by using individually tuned chambers for each woofer. The dividers for these chambers also add significant structural rigidity to the cabinet, further suppressing resonances. Since each chamber has its own rear firing tuning port, you can fine-tune the in-room response with the supplied port plugs. These work by reducing overall acoustic output in the lowest frequencies, which can be beneficial in smaller rooms or when the speaker must be placed close to the wall behind. Additionally, the bottom woofer can be disconnected from the amp and shorted using the provided woofer shorting bar, thus creating a 'bass trap' or damper to further suppress room resonances.



Midrange is Where the Music Lives

The majority of musical information is reproduced in what we call the midrange. It sounds a little boring next to woofers and tweeters, but the range between 200Hz and 2,000Hz contains most of the musical information related to pitch and timbre of instruments and voice. It just happens to be the most sensitive range for our ears, too. The Imagine T3 uses a specially developed 5 ¼" midrange driver, and tunes and isolates it in its own sealed chamber. The result is a lifelike presence that is palpable. The 5 ¼" size has a nearly perfect combination of low distortion, high output capability, and ideal dispersion over the desired frequency range, allowing it to integrate smoothly with the woofers and tweeter.

High Resolution Tweeter

The Imagine T3 is using a hand-selected version of PSB's famous titanium dome tweeter. This 1" dome features a neodymium magnet, high temperature voice coil and ferrofluid cooling, allowing it to keep pace with the high power handling of the rest of the speaker. Several years spent perfecting the production process has resulted in a tweeter with extremely smooth response and amazingly low distortion compared with other well-known tweeter designs. The integrated 'phase plug' is ingeniously designed to extend high frequency response while also creating an 'air spring' that effectively dampens the metal dome's 'oil can' resonance. Although this resonance is beyond the audible range, if not well suppressed it can affect the audible range. Excellent power handling allows PSB to ideally place the crossover point at 1,800Hz, which enhances the dispersion and integration with the midrange driver.

Advanced Driver Technology Reduces Distortion

Proven engineering combined with advanced technology in PSB's all-new drivers reduce distortion and respond more faithfully to musical transient, which is accomplished in two ways. Firstly, a copper cap is precision fitted over the pole piece of the motor structure to dramatically reduce 3rd harmonic distortion. Secondly, a symmetrical drive design is used to create a more uniform magnetic field in the motor (driver) coil which makes the cone motion more linear by reducing 2nd harmonic distortion, especially at high volume levels where the cone motion is greatest. The woofers and midrange utilize polymer coated felted fibreglass cones mated to a high temperature fibreglass voice coil. Rubber surrounds and a highly rigid non-resonant die cast aluminium alloy chassis provide precision alignment of all speaker components for high performance and excellent reliability. Combined with amplitude-perfect acoustic Linkwitz-Riley 4th order crossovers, these advanced drivers provide the lowest distortion and highest power handling of any PSB speaker. That says a lot, since PSB became famous for the 10,000 watt Stratus Gold speaker back in the 90s!





Like Fine Furniture

The sleek and distinctive Imagine enclosure was designed by the renowned industrial designer, David Farrage of DF-ID, and carefully engineered by PSB. The Imagine T3 employs seven layers of MDF (a dense, non-resonant wood material) and a unique process that employs space-age materials to create a beautifully curved, yet acoustically inert structure. The front baffle is a massive 2" thick MDF panel that provides a solid foundation for the drive units. The carefully sculpted trim rings around each driver provide a perfect low diffraction transition to the driver cone enhancing off-axis performance while hiding the fixing hardware and dampening unwanted vibrations. The hand-finished cabinet is available in piano high gloss black and in book-matched cherry veneers with a high gloss varnish. The gloss finish reflects other design elements in the room allowing the speaker to blend in to the environment and appear smaller than it really is.

Finishing Touches that Count

The PSB Imagine T3 includes a one-piece aluminium plinth with adjustable spikes, ideal for use on carpet to gain stability and give a clean mechanical interface with the floor—even with uneven floors. Isolation pucks with carefully engineered rubber dampers are also included for hardwood floors to prevent damage. The T3 features multiple input terminals for bi-amping and tri-amping if desired, along with the unique ability to use one woofer as a bass trap to tame room resonances, and to adjust the bass to perform perfectly in a wide range of room sizes and shapes.

A Perfectly Matched Centre Channel Speaker

Home theatre enthusiasts can create a perfectly matched surround sound system by combining the Imagine T3 for left and right speaker positions, and the Imagine C3 as the centre channel speaker. The identical voicing of these speakers creates a seamless and expansive sound field. Other Imagine models, including specialized surround speakers in stand mount, wall mount, in-wall and in-ceiling options complete the surround experience. The Imagine C3 is a true 3-way transitional design – unusually sophisticated for a centre channel – that uses the same driver technology as the Imagine T3.



The C3 includes two of the 7" woofers, both active at lower frequencies and with different low pass filter frequencies to maintain proper power response, as well as the same titanium tweeter as the Imagine T3. The specially developed midrange driver is unique to the Imagine C3 and is responsible for the excellent speech articulation of this speaker. The enclosure is rear ported and includes a tuning plug to adjust bass output for different placement options.

Imagine T3 and C3 Specifications

| | Imagine T3 Tower | Imagine C3 Centre |
|---|---|---|
| Frequency Response (Anechoic Chamber) | | |
| On Axis @ 0°±3dB | 24-23,000Hz | 48-23,000Hz |
| On Axis @ 0°±1 1/2dB | 30-20,000Hz | 50-20,000Hz |
| Off Axis @ 30°±1 1/2dB | 30-10,000Hz | 50-10,000Hz |
| LF Cutoff -10dB | 20Hz | 40Hz |
| Sensitivity (1W (2.83V) @ 1M, IEC-Filtered pink noise, C-weighted) | | |
| Anechoic Chamber | 89dB | 89dB |
| Listening Room | 91dB | 91dB |
| Impedance | | |
| Nominal | 8 Ohms | 8 Ohms |
| Minimum | 4 Ohms | 4 Ohms |
| Input Power (RMS, Clipping <10% Time) | | |
| Recommended Program | 20 - 300 Watts | 20 - 200 Watts |
| | 300 Watts | 200 Watts |
| Acoustic Design | | |
| Tweeter (Nominal) | 1" (25mm) Titanium Dome with Ferrofluid Neodymium Magnet | 1" (25mm) Titanium Dome with Ferrofluid Neodymium Magnet |
| Midrange (Nominal) | 5 1/4" (133mm) Compressed Felt/Fibreglass Cone with Mastic Compound Coating Rubber Surround | 3 1/4" (84mm) Compressed Felt/Fibreglass Cone with Mastic Compound Coating Rubber Surround |
| Woofers (Nominal) | 3 x 7" (182mm) Compressed Felt/Fibreglass Cone with Mastic Compound Coating Rubber Surround | 2 x 7" (182mm) Compressed Felt/Fibreglass Cone with Mastic Compound Coating Rubber Surround |
| Crossover | 450Hz, B3, 1,800Hz LR4 | 500Hz, B3, 1,800Hz LR4 |
| Internal Volume | 1.88 cu ft (53.1L) | 0.84 cu ft (23.9L) |
| Design Type | Transitional 5-way Triple Port Bass Reflex | Bass Reflex |
| Size (W x H x D) (Gross Dimensions) | | |
| | 11 1/2 x 47 5/8 x 15 1/8" ** 292 x 1208 x 382mm | 24 1/2 x 9 1/4 x 13 5/8" ** 622 x 235 x 346mm |
| Weight | | |
| Net | 71lb (32.3kg) | 33.5lb (15.2kg) |
| Shipping | 97.2lb (44.2kg) | 43.8lb (19.9kg) |
| Finish | | |
| | High Gloss Black or High Gloss Cherry* | High Gloss Black or High Gloss Cherry* |

*Some finishes may not be available in all models and/or all countries. **Non-metric measurements are approximate.

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A HERITAGE OF PERFORMANCE

In a world where most of the once great speaker companies are trading in craftsmanship for mass production, PSB remains true to its founding principles. PSB's Founder and Chief Designer, Paul Barton, carefully voices every speaker. Barton has created a hierarchy of speaker attributes informed by years of experience combined with scientific experiments at Canada's renowned National Research Council. These experiments tested hundreds of individuals in double-blind screen listening sessions to determine what speaker attributes make the most life-like listening experience. PSB has embraced this research and used it to create the most critically acclaimed speaker brand on the market today.

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REAL SOUND FOR REAL PEOPLE

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