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KNIGHT series

# KNIGHT series

#### Superb Acoustic performance.

Detail and neutrality are paramount in creating a loudspeaker which is enjoyable not only during a short 'audition' but for a lifetime of use and a complete spectrum of music tastes.

Attention to detail throughout the design and construction of the Knights series is self-evident. Born of a complete understanding of acoustic principles, exceptional high-frequency clarity is allied to a powerful yet remarkably controlled bass performance.

#### Smooth and soft

Accuracy of high frequencies is core to the ability of any loudspeaker to render three dimensional soundstages. The sealed unit of the Knights series is truly exceptional in this respect providing an acoustic 'window' to the performance

The Castle Knights series achieve a superb high-frequency performance well beyond human audibility, through using a 'soft-dome' tweeter. Soft-domes produce a more controlled performance than metal equivalents. Furthermore, through an innovative aluminium-core voice coil, we are able to match and even exceed the bandwidth possible from metal domes – but without their inherent problems.

#### **Design integrity**

The design of the Knights series has involved the ground-up development of every drive unit and component used. Only possible because of our world-class research and development, complex electrical correction of drive unit characteristics is rendered unnecessary. Through this synergy in design the Knights series speakers can incorporate a simple second order crossover, for a perfectly integrated mid-range.

#### Fast and powerful bass

The mixed-fibre cone material used in the bass drivers is rigid, yet light – fast enough to track the most complex score.

Mixed into a suspension, a cocktail of natural fibres is heated and pressed into a cone shape. The random nature of the grain, produces an exceptionally inert diaphragm free from the resonances and 'ringing' of lesser materials. Speed and accuracy are core bass-driver characteristics, enabling close acoustic matching through the crossover region and facilitating our use of a simple second-order crossover (12db/octave) to achieve a smooth and almost perfectly phase linear transition.

### Depth of clarity

Castle's unique 'TPT' (twin-pipe technology) transforms the performance of all floor-standing models, using the internal volume of the cabinet to extend the bass response, without using unruly reflex ports.

TPT is a new generation of transmission-line, vented through the speaker base, which prevents port output coupling with the room modes.

In most loudspeaker designs, room modes are easily excited by forward or rear-firing reflex ports, which can cause resonance and a resulting 'boom' at particular bass frequencies. Whilst this can give the impression of an impressive bass response, this boom frequency masks all others making bass indistinct and slow.

The TPT system instead couples the bass response within the cabinet enclosure, using a twin-pipe quarter wave design to provide a smooth and even bass response which augments that from the main bass driver with clarity.

#### Perfect poise

Adorned with the very highest-quality genuine wood veneers, the Knights series offers more than a taste of high-end luxury.

Our fine real-wood veneers are sourced from sustainable timbers. We use the most beautiful deep-figured slices, cut from real trees – not reconstituted mush! Each speaker pair is hand-finished using mirrored, book-matched veneers – before being sealed and waxed in a process which takes over 5 days. Only when a depth of character and lustre which reflects the outstanding performance of these speakers is reached, are they released for final testing.

























## **Castle Acoustics**

From it's founding in the early 1970s, Castle Acoustics has represented the interests of the audiophile who requires much more than just superlative performance from their hi-fi systems.

For this reason, every Castle product is born of a desire for luxury, not only in ability, but also presentation. Manufactured to furniture-grade standards without compromise the finest materials and woods are specified in every design.

The Knights range of loudspeakers offers not only Castle's famously smooth and rich performance, but for the first time, a new standard in build and value, in a package dedicated to high-quality stereo audio.



