

abyss™

Subwoofer (available April 2006)

High-Excursion High-Resolution Drive • Adaptable Front-Fire/Down-Fire Configuration • Inverse Mathematical Equalization

Resulting from seven years of dedicated research in amplification, driver, cabinet, control, and systems technologies Abyss establishes new standards for versatility, size and performance. Capable of both front and down firing configurations, Abyss is not only one of the most compact subwoofers in its class, but also offers the best performance for its size. Abyss reproduces sub-bass frequencies with the same exacting accuracy and authority audio enthusiasts have come to expect from the MartinLogan line of subwoofer products.

IME (Inverse Mathematical Equalization) Filtering for a Flat Frequency Response

Originally developed by MartinLogan engineers for the flagship Statement e2 loudspeaker, Abyss's advanced IME (Inverse Mathematical Equalization) filtering technology is derived from an inverse of the unfiltered woofer response. Precision IME filtering results in an extremely accurate low-frequency response far beyond that of simple second order high Q filters commonly found in competitively priced subwoofers

Versatility in Application

The new Abyss, available in black, is optimized for use in stereo- and multi-channel applications and in all installation configurations including corners, inside of cabinets and underneath or behind furniture.

Front-Firing/Down-Firing Configuration for Maximum Installation Flexibility

To maximize performance when installed inside of a cabinet or other custom installation, Abyss' standard down firing configuration easily converts into a front firing configuration. A grill cover and 90° RCA adaptors are provided for use in front firing applications.



High-Resolution Proprietary Amplifier Maximizes System Performance

Abyss's ultra-efficient amplifier and woofer combine to deliver explosively accurate levels of output beyond competitively priced subwoofers with amplifiers rated at even 5 times the power. The Abyss features an amplifier using much higher switching frequencies and new techniques over typical subwoofer amplifiers to keep noise, distortion and thermal energy at the lowest possible levels.

State-of-the-Art, Low-Distortion Aluminum Element Dynamic Driver

At the heart of the Abyss subwoofer lays a proprietary MartinLogan, 12-inch, high-resolution driver, designed and manufactured with the same meticulous attention, care and precision as those found in the ground breaking Descent subwoofer. The combination of Abyss' high-excursion aluminum cone and the tremendous field strength generated by the magnet motor structure results in huge excursions and massive cubic displacement capability. Known for their and ability to eliminate cone flexure this high-excursion/high-resolution driver inherently delivers world-class sub-bass performance.

Intuitive Input and Control Architecture Allows Seamless System Integration

Audio and video products available today represent a confusing myriad of connection options and setting configurations. Understanding this complexity, the MartinLogan team designed the Abyss with an input architecture that easily integrates in both 2-and multi-channel systems. LFE input effectively uses no low-pass filter, instead leaving crossover control to the processor. Left/Right line level inputs integrate a precision 30-80Hz low-pass filter. RCA output allows multiple Abyss to operate in a serial configuration.

Abyss Specifications

Frequency Response	23-120 Hz ± 3 dB. Anechoic through the LFE input.
Low Pass Filters	30-80Hz
High Pass Filters	70Hz
Phase	0°, 90°, 180°
Components	12" (25.4cm) high-excursion, aluminum cone woofer with extended throw driver assembly
Amplifier	300 watts RMS
Inputs	RCA Line Level, RCA LFE, Speaker Level
Output	RCA Line Level, RCA Sub Out
Weight	40 lbs. each (18.1 kg)
Size	15.8" H x 13.5" W x 15.2" D (35.3 x 29.7 x 32cm)



MARTIN LOGAN®

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