

Enigma 44

Design Goals:

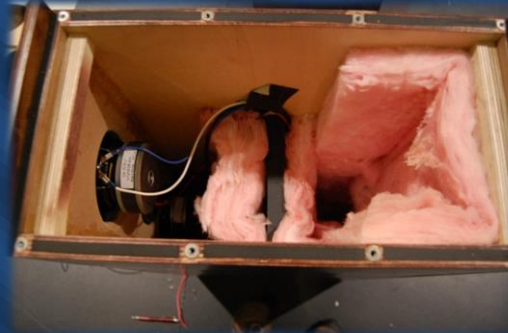
Design a pair of accurate mixing monitors to be used in a small, untreated room that cost \$950. They should be low fatiguing and have tight, accurate bass. They should be movable by a single person and be able to fit on either side of a normal sized computer desk.

Approach:

Build a straight transmission line speaker due to its ability to give deep and accurate bass while preserving tight transient response. The line length matches the quarter wave frequency of the resonant frequency of the driver, and emits low frequencies in phase for constructive interference.

Result:

Speakers that exhibit an accurate bass lift down to 44 Hz, despite being against a wall in a small, untreated room. They have a tight transient response, clean, low fatiguing sound, and a frequency response that is ± 1.5 dB from 60 Hz – 20 kHz.



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