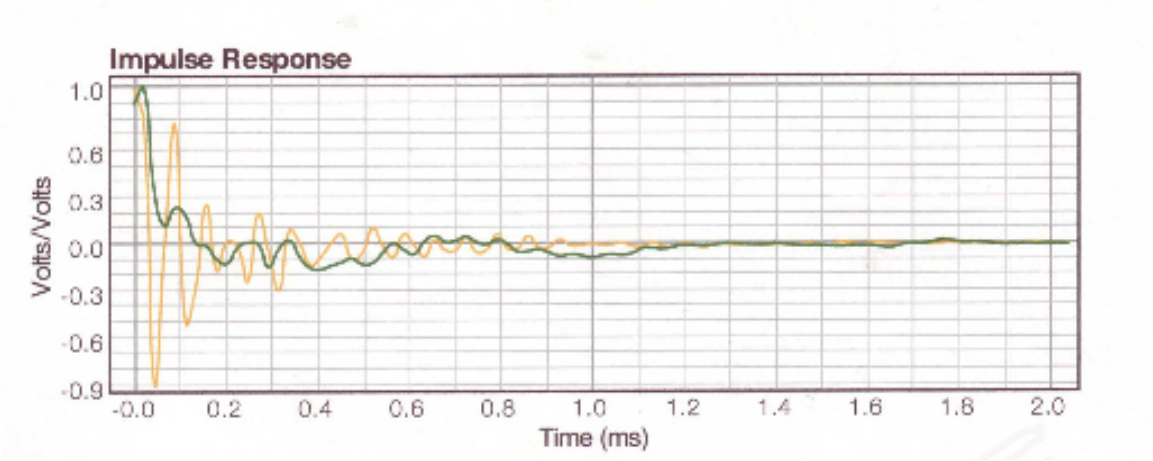
MAJESTIC DIAMOND IR IMPULSE RESPONSE



MD-1R Impulse Response vs. High Quality 3” System

The above graph indicates the superior impulse response of the MD-1R natural sound monitor. The orange line represents a high quality speaker system with a 3” driver in a non-rectangular enclosure to improve the energy storage losses. The green line indicates the impulse response of the MD-1R natural sound monitor using the ETL. The impulse response determines just how fast the drivers’ motion stops following a fast pulse applied to its input. When a driver overshoots and oscillates, the system cannot track the input signal. Time smear is the result of decay oscillations that cause previous signals to be present when new signals arrive causing a blurred incoherent sound. With TBI natural audio monitors the driver recovers immediately, so new signals and previous signals are not present at the same time. Now, imaging is maintained even when listening off axis allowing multiple listeners to enjoy the sound stage. There is no overshoot of the response into the negative region of the graph upon application of the impulse. The use of a single driver optimizes the impulse response with the ETL providing proper acoustic impedance matching. This type of response is impossible to achieve by any other means especially with small speakers.

Below the 2-way Yamaha NS-10 studio monitor response indicates the severity of this problem. There is overshoot and problems settling down after the impulse.