

## Mark Rosenthal TLS-1 Review

Walsh-style HHR TLS-1 by Dale Harder

Speakers review 11/15/2014

Forty years ago, I had a college roommate lucky enough to borrow a pair of Ohm-F speakers from his dad. By this time, I'd been an audio enthusiast for a few years. I had never heard the F's before, but was immediately captivated by the "being there" live-performance aspects of the sound. As weeks passed, I began to appreciate the smooth crossover-free frequency response through the high-end, and the tight and controlled bass. Powered by a Phase-Linear 700, I was warned by my roommate to be careful with the volume. The F's were easy to damage by being over-driven.

Over the following decades, as I enjoyed listening to music on my own more budget-conscious equipment, I continued to fondly remember the lifelike characteristics of the F's, while never replicating the sound quality inherent from a single omnidirectional full-range driver.

Thirty-two years later, with a little more budget to work with, I found a set of used Ohm FRS-11s, and installed new current-generation drivers from Ohm. The "being there" realism returned by about 75%. Current generation Ohm designs are two-way, with the high-end being handled by a conventional directional tweeter. It was possible to tweak the sound by toeing the speaker to attenuate the high-end frequency response. Very good for the money, and I enjoyed these for 8 years. But I still missed the full end-to-end coherent realism from those old F's.

Eight years later, I finally had the budget for a serious audio upgrade. I was aware that an engineer named Dale Harder had spent decades developing speakers intended to improve upon the original single-driver, no-crossover design of the original F's. I spent a few weeks reading and thinking about the reviews of his work and then ordered a pair of Walsh-style TLS-1s from Dale through his company, HHR. A few months later, I can tell you that I am experiencing the same full-frequency "being there" realism I remember from my college days. With some notable improvements.

The speakers produce 90db at 10ft without any issues. This is quite loud for extended listening in a moderate-sized room up to around 400 square feet. My media-room space is limited, so I also use the TLS-1s for home theater. To provide room-shaking bass for movies I use a pair of 15inch HSU ULS-15s crossed over at 50hz. This allows the TLS-1s to play even louder without risking damage. Since the very-low frequencies are perceived as non-directional, there is no degradation of the realistic sound produced by the TLS-1s that I can detect.

Dale lists over 60 improvements he's made to the design on his website, but what matters to me is the subjective experience. You'll have to audition a pair to understand, but I've never heard anything better. Maybe louder, but not better.

Over the years, I've tried to understand what it is about the sound from this type of speaker that appeals to me. What I think I've learned is that perceived sound quality is a trade-off between precise three-dimensional imaging and live-performance realism. At one end, the most precise three-dimensional imaging I have heard comes from a pair of headphones. Very good electrostatic speakers I've heard produce this type of sound, but you need to be seated in a specific "sweet spot" in order to hear it. At the other end, are speakers that make it sound as if you have performers playing in a real room, and not a recording studio. The original F's and the TLS-1s are in this category.

I could echo what others have said about the sound of a Nora Jones taking a breath, the subtle mechanical piano sounds from a good Argerich recording, the sound of a violin string being scraped as Pearlman bows, the thump in your chest with a kettle-drum strike, etc. My subjective impressions are confirmed by the sensitive hearing of my cat. When the music starts, she looks around for the performer. Then she plops down directly between the TLS-1s. That's never happened with any other speaker. Even the upgraded Ohm FRS11s.

If you enjoy the sound of live performers in a real room, you'll love the TLS-1s. You'll get:

- \* Mind-blowing "being there" realism.
- \* Silky-smooth coherent, crossover-free frequency response from end-to-end.
- \* Beautiful cabinetry.
- \* The opportunity to talk with and learn from one of the few true renaissance craftsman-engineers still inhabiting planet earth: Dale Harder.

Look elsewhere if:

- \* You crave a headphone-like imaging experience.
- \* You need 100db or more of loudness at 10ft.
- \* You need speakers that are small and easily moved. The TLS-1s weigh 150lbs each.
- \* You are in a hurry. These are hand-built fine cabinetry that contain hand-built speaker drivers. It usually takes a few months.

A note about shipping: Don't even think for a minute that the shipping costs are expensive. If it seems that way, it's only because the price for the speakers is so low. It's 300 lbs of exotic electronics shipped in fine cabinetry. Vendors ship equipment to trade shows on palettes for good reason. You don't want anything less with these.

My system:

Mains: HHR Exotics TLS-1

Surrounds: Ohm micro-wash

Subs: HSU ULS-15

Amp-Mains: Sanders Magtech

Amp-Surrounds: Outlaw 7500

Preamp: Parasound P7

Media Player: Oppo BDP-105D

**Mark Rosenthal**

**Colorado**

