



# In a field of their own

**Chris Ward** is drawn to a radical magnetic hybrid linear field transducer that may look new, but is celebrating its 26th birthday

**T**his American speaker may well be new to you, but the original was launched back in 1989, and in the intervening quarter of a century its design has remained largely unaltered. Why? It works, brilliantly. Chances are, though, you've never heard them, so perhaps it's time for another curtain call...

The deep, heavy, unported base houses an 8in driver, designed inhouse by Eminent Technology. Handling a deliberately limited frequency range below 180Hz, it effectively acts as a highly focused subwoofer. Bruce Thigpen, the designer, was intent on achieving "excellent transient response with the minimum of colouration near the crossover frequency". The end result is a strongly damped, sealed

field transducer". This may look like an electrostatic panel, but differs through the use of powerful permanent magnets, front and back, instead of electrically charged stator plates to excite a thin Mylar diaphragm. This is tough but very light, with much of its agility coming from the aluminium 'voice grid' effectively being etched on to the surface of the film. And unlike electrostatics that commonly use a step-up transformer (with the potential for some slight colouration) to charge stator plates, this speaker design applies the musical signal directly to the voice grid on the film, just as a regular cone speaker would to a voice coil suspended in a fixed magnetic field. This revolutionary driver is tuned to handle frequencies from 180Hz all the way to 10kHz so

## Rarely do so many smart elements add up to such a compelling whole

enclosure that creates an air suspension design, promising fast and accurate bass performance that will not disrupt the panel.

The 1in-thick panel may look lightweight in comparison to the base, but is extremely sturdy. A braced steel frame supports two separate driver technologies and is flanked with a choice of wood trims. With or without the optional front grille, these speakers might not be described as beautiful, but they have an honest, utilitarian simplicity that will sit well in many modern rooms. Build quality is excellent, but finish feels engineered rather than domestic.

Within the panel, the main air moving duties are performed by a highly evolved form of planar magnetic driver, described as a "linear

### DETAILS

**PRODUCT**  
Eminent Technology  
LFT-8b

**ORIGIN**  
USA

**TYPE**  
3-way hybrid linear  
field transducer  
floorstanding  
loudspeaker

**WEIGHT**  
41kg

**DIMENSIONS**  
(WxHxD)  
385 x 1,590 x  
710mm

**FEATURES**

- Ribbon tweeter
- Planar magnetic panel
- 8in sealed enclosure woofer
- Quoted sensitivity: 83dB 1W/1m

**DISTRIBUTOR**  
HiFi Hangar

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**WEBSITE**  
eminenttechnology.co.uk

is responsible for the vast majority of musical information, without any awkward crossovers in the ranges where human hearing is most sensitive to phase issues.

The highest frequencies are delivered by a ribbon driver that resides on the inner half of each panel. These are claimed to operate from 10kHz to 50kHz, so could almost be considered a super tweeter. Evangelists of high-resolution audio take note – these speakers are designed to leave no musical information behind. Simple attenuation of high frequencies is also achieved via three tweeter settings near the bi-wireable binding posts.

Room placement is far less fussy than one might expect, and bass performance doesn't deteriorate until very close to a back or side wall. The 8in driver is partly loaded by its proximity to the floor and bass is easily fine tuned by placing different hard materials under the front spikes, as well as gently leaning the speakers back a few degrees. Gentle toe-in on the middle tweeter setting also suits my room, but I have no doubt they will work in many spaces.

### Sound quality

One might predict that such highly engineered speakers would give a sterile, analytical take on music, but the opposite is true. Playing Ben Harper's *Gold To Me* on vinyl, the opening hi-hats positively fizz with high-frequency energy, but with no

**A choice of three tweeter settings can be selected around the back**





## Q&A

### Bruce Thigpen

President, Eminent Technology



**CW: What led you to design and build this speaker?**

**BT:** I started constructing loudspeakers as a hobby in high school. None of them were any good, as parts availability was limited in the mid to late sixties. Then one day I walked into a local audio shop and they had a single Quad 57 hooked up to a receiver playing an FM radio station. To my ear it was astonishing and seemed to accurately reproduce the input signal. I set out to learn how to make electrostatic speakers.

Electrostatic drivers are relatively easy to assemble and they automatically sound good, the trick is learning how to deal with stator insulation. Yet, I wanted a planar transducer that removed any dielectric strength limitations while trying to maximise the benefits of low coloration and low distortion. Pursuing these goals culminated in the speaker you hear now.

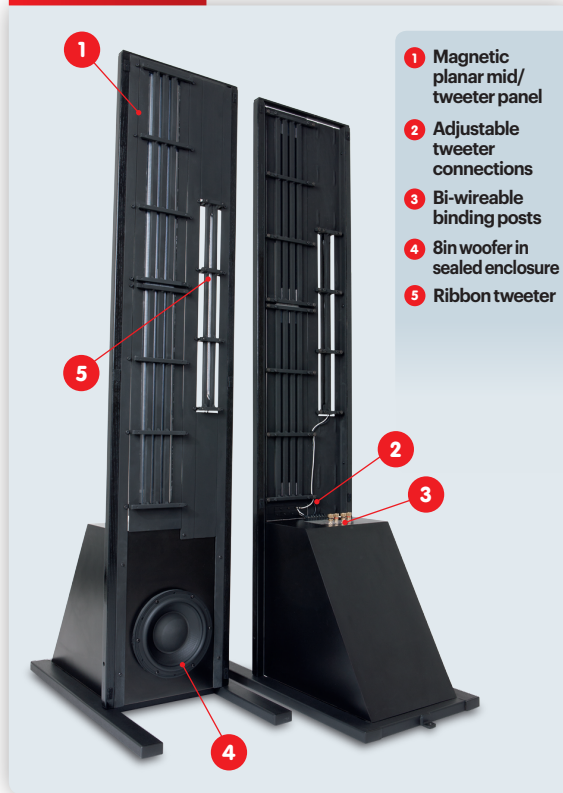
**The LFT-8b differs from many hybrids in the crossover frequencies between the drivers you use. Can you elaborate on this?**

Our hearing appears to be highly sensitive to transitions where the vocal fundamental frequency and some harmonics are handled by disparate drivers. Planar and cone transducers have very different dispersion, colouration and distortion characteristics, and our hearing can pick this out easily. In my opinion, musical instruments and voices tend to be reproduced more naturally if a single driver handles less than 200Hz to greater than 3kHz. To stay within this rule, I designed the natural frequency of the planar midrange panel to start below 200Hz and go as high as it can.

**This speaker appears to have changed very little in 26 years?**

There have been minor revisions, but this design just works. I appreciate products that have been around a long time and still have support. For example, we can still supply parts for a tonearm we made 33 years ago and I will correspond with any customer. I believe that providing continuity and service is still valued by customers.

### IN SIGHT



- 1 Magnetic planar mid/tweeter panel
- 2 Adjustable tweeter connections
- 3 Bi-wireable binding posts
- 4 8in woofer in sealed enclosure
- 5 Ribbon tweeter

### HOW IT COMPARES

There are no direct comparisons, but around this budget you might audition another hybrid speaker in the shape of MartinLogan's ElectroMotion ESL or Magneplanar 1.7 panels. The ElectroMotion shares some of the LFT-8b's magic and is friendlier on the eye, but it can't match the bass extension or all of the dynamism and transparency of the LFT-8b speaker. The Magneplanar 1.7 boasts wonderful transparency and near holographic imaging and goes far deeper than people realise, but it cannot create all of the much-needed bass 'slam' that so much music demands. The LFT-8b is in a class of its own.

apparent grain. Harper's voice has real body, yet every tiny inflection comes through without a hint of dryness. The bass riff joins in with fantastic weight and infectious rhythm but absolutely no overhang or flab, revealing real detail in the leading edges of driving bass notes. Hand chimes ring cleanly and float precisely in a tall, deep soundstage. Imaging is strong, but quite sensitive to listener position and toe-in, so placement is worth fine tuning.

The agility of these speakers and their consummate ease in reproducing a large dynamic range with fast transients is underlined by playing a hi-res download of Ariel Ramirez's *Misa Criolla - Kyrie*. A seismic bass drum forcibly punches the air while ringing rim shots pierce the silence, perfectly defining the large acoustic space with every tiny reverberation. A large choir gently rises from the echoes and sets out a deep, mournful melody to the mass, the LFT-8b conveying this brooding power deep in the soundstage with calm authority. Vocals soar with power, yet plaintive intimacy high over the rich layers of massed choir and death knell-like percussion. All in all, it's a spell-binding delivery of an incredibly emotional performance.

So often speakers around this price need to make decisions about what they will and won't communicate,

with obvious design trade offs all too clear to hear. Here, compromises appear small. The LFT-8b can be a little 'beamy', giving its strongest imaging to a relatively narrow sweet spot and imaging appears to be mostly between and behind the plane of the speakers.

### Conclusion

The LFT-8b is possibly the only speaker you'll ever need. Rarely do so many smart engineering elements add up to such a compelling and natural whole, and almost never for this price. While some speakers have a soft spot for rhythmic jazz or thunderous rock, orchestral scale or intimate vocals, the LFT-8b seems utterly unfazed, adept at everything.

It enjoys amplifier power and grip, especially to make the most of the quality and quantity of bass extension available. Eminent Technology recommends a minimum of 50W, but I find the speaker a far easier load than the 83dB sensitivity suggests, especially given the benign impedance. I get excellent results with a Hegel H160 amplifier/DAC (HFC 394) with its high damping factor, but a vintage Adcom power amp and Transcription Audio 211 triode valve amplifier are similarly very impressive.

In each instance, what is apparent is just how clearly the speaker communicates the precise nature and quality of the music, source, cabling and amplification.

These LFT-8b conveys every element of a performance in a very dynamic but highly transparent, seamless and natural manner; from accurate deep bass tones through to ultrasonic harmonics. Often, the term 'revealing' can mean harsh or analytical or even a tendency for something to be spotlighted, but here it just feels like I'm lucky enough to be sat next to the studio engineer at final mix down ●

## Hi-Fi Choice

### OUR VERDICT

<b>SOUND QUALITY</b> ★★★★★	<b>LIKE:</b> Transparency; dynamic speed; coherence; range; price
<b>VALUE FOR MONEY</b> ★★★★★	<b>DISLIKE:</b> Utilitarian styling doesn't appeal to all
<b>BUILD QUALITY</b> ★★★★★	<b>WE SAY:</b> These are giant killers – highly dynamic and sublime poise at a bargain price
<b>EASE OF DRIVE</b> ★★★★★	

### OVERALL

