



MKSOUND PRODUCTNEWS

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stereophile
GUIDE
to
HOME THEATER

Reprinted from January 2000
Vol. 6, No. 1

SURROUND SPEAKER SYSTEM

M&K 750THX Select

Michael Fremer

For those unfamiliar with M&K, the company goes back to the early 1970s, when the “K” of the partnership, Ken Kreisel, designed a subwoofer for Steely Dan’s *Pretzel Logic* mixing sessions. (The “M” was the late Jonas Miller, owner of Jonas Miller Audio, one of L.A.’s premier retail establishments during the ’70s and ’80s.) M&K’s impressive list of achieve-

ments in building speakers and recording direct-to-disc analog records can be found on the company’s website (www.mksound.com).

M&K was one of the first companies to build a THX (now THX Ultra) home-theater speaker system, and the 750THX is the first system to be certified with the THX Select imprimatur by Lucasfilm. The five-

satellites-plus-subwoofer system sells for a very reasonable \$2400. A pair of M&K’s hollow, MDF Docking Station stands (complete with bags of coarse sand to fill them) adds another \$299 to the price. The stand is the same width and depth as the front and surround speakers; when the two are bolted together, the result is a sleek, sturdy, pleasing-looking assembly.

SPECIFICATIONS

LCR-750THX and **Center-750THX** L/R/C sealed-box, 2-way front speaker

Drivers: one 1" soft-dome tweeter, two 5¼" polypropylene cone woofers

Frequency response: 80Hz–20kHz, ±2dB

Nominal impedance: 4Ω

Crossover: 1600Hz

Amplifier requirements: 10W RMS minimum, 50–200W RMS recommended

Input connectors: one pair gold-plated 5-way binding posts

Dimensions: 16½" × 7" × 8¾" (H×W×D)

Weight: 16 lbs.

Finishes: black vinyl, piano-black lacquer

Price: \$675/pair or \$335 each

Surround-550THX sealed-box, 2-way surround speaker

Drivers: one 1" soft-dome tweeter, one 5¼"

polypropylene cone woofer

Frequency response: 80Hz–20kHz, ±2dB

Nominal impedance: 8Ω

Crossover: 1600Hz

Amplifier requirements: 10W RMS minimum, 50–200W RMS recommended

Input connectors: one pair gold-plated 5-way binding posts

Dimensions: 10¼" × 7" × 8¾" (H×W×D)

Weight: 9 lbs.

Finishes: black vinyl, piano-black lacquer, white

Price: \$540/pair

V-1250THX sealed-box powered subwoofer

Driver: 12" long-throw woofer cone

Frequency response: 20–125Hz, ±3dB

Amplifier power: 125W RMS

THD: <0.03%

Input connectors: L/R RCA jacks

Output connectors: none

Dimensions: 18" × 15¼" × 23" (H×W×D)

Weight: 44 lbs.

Finish: black vinyl

Price: \$850

System Price: \$2400 (add \$299/pair for Docking Station stands, \$350 for piano-black lacquer finish on all satellite speakers)

Warranty: 10 years (satellites), 5 years (subwoofer), parts and labor, transferable

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Unpacking and Setup

The first thing you notice on unpacking this compact system is the Spartan appearance of the cabinets, which are finished in matte-black vinyl wrap. (Piano-black lacquer is available all around for an additional \$350; the surrounds are available in white at no extra charge.)

Next, you notice the neat-looking, curved, metal-mesh grilles, which give the speakers an open, modern façade. The sealed cabinets' look and feel of quality construction are reinforced when you rap them with your knuckles—the resulting *thunk* indicates tight, well-braced construction.

The front, center, and surround speakers use M&K's proprietary Peerless 1-inch, soft fabric-dome tweeter. This is the same driver as used in the company's THX Ultra speakers, though the implementation is not quite as sophisticated, according to a company spokesperson. The tweeter is said to exhibit high output, low distortion, and wide dynamic range.

In addition, the tweeter's performance is augmented by M&K's new High-Frequency Prism system. This system uses a metal-mesh grille over the entire baffle and angles the tweeter by 4.7° from straight ahead. As a result, the fronts are dedicated left- and right-channel speakers, identified by arrows on the cabinet rears. (The center is identical to the front L/Rs; you simply orient it horizontally instead of vertically.) The combination of grille diffraction and offset angle is said to produce a smooth, extended, and flat high-frequency response over a wide listening angle.

Each of the three front speakers has two 5¼-inch polypropylene cone woofers, mounted below the tweeter in the L/Rs and next to it in the center speaker. The crossover frequency is a relatively low 1600Hz. M&K rejects the popular D'Appolito array, which would place the tweeter between the woofers. That layout works well in a vertical configuration, but using a horizontal D'Appolito array for a center-channel speaker frequently results in serious lobing across the listening window, creating a high-frequency venetian-blind effect. The surround speaker is a two-driver version of the front L/Rs, with the same tweeter and one 5¼-inch polypropylene cone woofer.

The V-1250THX powered subwoofer

REVIEW SYSTEM

Audio/Video Sources

Panasonic A-110 DVD player
Pioneer DV-05 DVD player
Pioneer LD 606 LD player

Display

ProScan PS32130 32" direct-view TV
Samsung PLH403W 40" Tantus
LCD projection TV

Receivers

Denon AVR-5700
Yamaha RX-V2095

Cables

Sumiko OCOS speaker cables
(L/C/R, surrounds)
Straight Wire interconnects
AudioQuest S-video cables
Wireworld Eclipse Gold and Silver
digital cables
Kimber TosLink digital cables

Misc.

Audio Power Industries Power Wedge
116 line conditioner

features a 125W RMS amplifier and a 12-inch long-throw driver in a sealed box. Typical room response is rated at 20–125Hz, ±3dB. In other words, this \$850 box is a real subwoofer. The rear panel includes a bass-level control and a bypass switch that fixes the level at the THX reference. Another toggle switch bypasses the built-in 80Hz, 24dB/octave lowpass filter when the subwoofer is used with a THX receiver or processor. The remaining rear-panel features include two line-level RCA inputs and a phase switch.

I installed the LCR-750THX L/R speakers in the usual place in my home-theater room (aka my living room), on a pair of excellent,



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sand-filled, steel-frame Franklin and Lowell stands, which were already in place and would have been a pain in the butt to replace with the M&K Docking Stations. This put them at about ear height, fairly close to the monitor. Such close proximity to the monitor prevents the development of a wide soundstage, but the lateral soundfield remains consonant with the picture, which for me is more important.

The center-channel speaker went atop my ProScan monitor on three large AudioQuest Sorbothane feet, and was aimed down at the listening position. The sub fit neatly into the customary corner location in line and to the left of the front pair, while the surrounds sat on the M&K



Docking Stations behind the listening position about 8 feet apart and toed-in slightly. Using both THX and non-THX receivers, I found that blending the subwoofer with the satellite speakers was very easy to accomplish, thanks in part to M&K's outstanding instructions.

Listening

The first THX-approved speaker system in my home theater proved to be one of the most agreeable and accomplished—and probably the best-behaved—of any system I've reviewed. If a speaker system's job is the opposite of a child's—that is, to be heard and not seen—the M&K 750THX system's department is exemplary.

The L/C/R array opens a broad, seamless

MEASUREMENTS

Measurements performed by John Atkinson

The M&K LCR-750THX and the Center-750THX are virtually identical designs whose measurements differ primarily in ways relating to the typical orientation—the Center is mounted horizontally, the LCR vertically. The sensitivities of both designs are virtually identical at 91.2dB/W/m. The impedance drops below 4 Ω between 160 and 650Hz, but never below 3.4 Ω. See **Fig. 1**. It appears to be a relatively easy load to drive when combined with the speakers' high sensitivity. The sealed enclosure is tuned to 87Hz.

Fig. 2 shows the LCR-750THX's on-axis anechoic response averaged across a 30° lateral window combined with the nearfield woofer response; **Fig. 3** shows the same result for the Center-750THX. The responses are respectively flat and well-matched, with a few minor dips and peaks. The modest rises at 4kHz and 10kHz suggest traces of added presence and sparkle, respectively, but these should be relatively subtle and will probably be swamped by room- and placement-related variations.

The horizontal dispersion of the LCR-750THX is excellent. It falls off relatively quickly above 10kHz as you move off-axis, but the response remains smooth. The same can be said, with only small differences, of the Center-750THX's vertical response. The latter's horizontal dispersion, however, exhibits variations typical of horizontally configured center-channel speakers. The most prominent deviation is a suckout between 1kHz and 1.5kHz, which becomes particularly pronounced as you move more than 20° off axis on the side with the two

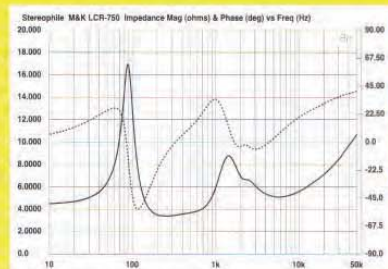


Fig. 1: M&K LCR-750THX and Center-750THX, electrical impedance (solid) and phase (dashed). (2 ohms/vertical div.)

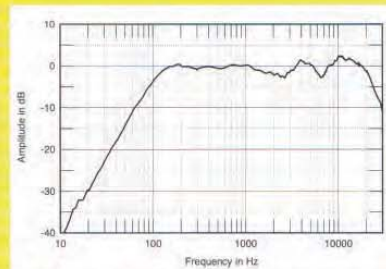


Fig. 2: M&K LCR-750THX, anechoic response on tweeter axis at 50°, averaged across a 30° horizontal window and corrected for microphone response, combined with nearfield woofer response.

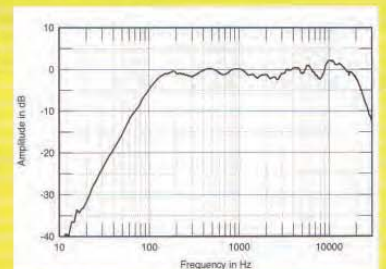


Fig. 3: M&K Center-750THX, anechoic response on tweeter axis at 50°, averaged across a 30° horizontal window and corrected for microphone response, combined with nearfield woofer response.

woofers, and more rapidly still on the tweeter side. For listeners seated well off to the side, this will affect the spectral balance of the center channel and, perhaps, dialogue intelligibility. A similar variation affects the vertical dispersion of the LCR-750THX, though such changes in vertical response are not unusual in multi-driver speakers. For the smoothest response from the LCD-750THX, the vertical seating axis should be at or a little below the tweeter axis—high stands are desirable for this speaker.

The speakers' step responses indicate that they are not time-coherent. (Few speakers boast true time coherence, and in any case its benefits are disputed.) The so-called waterfall plot, which shows a speaker's delayed resonances, is very clean for both models. The treble response, in particular, is notably free of "hash."

The LCR-750THX's side panel has a significant vibration mode at just under 300Hz. (Curiously, this is far less evident in the identical panel—i.e., the top panel—of the Center-

750THX.) But none of the measured cabinet resonances is out of line for a speaker of this price.

Altogether, the measurements of the LCR-750THX and Center-750THX indicate solidly engineered designs.—TJN

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M & K 750THX SELECT

window at the front of the soundstage, and the speakers never give away their individual locations. Image focus and size are ideal, creating a much larger sonic image than such compact speakers would seem able to produce. Yet image specificity was exceptional—especially given the cramped quarters in my room—and perhaps as good as I've heard from any speaker system in my home theater. The blend between the woofers and tweeter in each speaker also proved superbly accomplished, as evidenced on both voices and pink noise.

The THX spec demands wide, smooth dispersion, and the 750THX system delivers it. The sound remains timbrally consistent over a wide horizontal arc, as does the overall SPL. Having the center channel's tweeter off to one side of both woofers might not be as aesthetically pleasing as having it centered between them (the drivers are plainly visible behind the metal-mesh grilles), but this placement results in less audible horizontal lobing than I'm accustomed to hearing. Every seat in the house gets the same high level of dialogue intelligibility. In fact, my wife and I agreed that the 750THX's center channel is among the most effective we've heard—timbrally neutral, free of chestiness and excess sibilance, and possessing a tonal balance that remained remarkably consistent across our living room.

M&K's reasonably compact V-1250THX subwoofer (\$850) scores high marks as well. It doesn't have the Speaker Level Drive option found on the \$1000 REL Q100E (reviewed in *SGHT*, July/August 1998), but this particular feature should prove unnecessary when the M&K is used as part of a THX system with a THX receiver.

The V-1250THX's well-damped system rivals the REL's impressive brand of deep, dynamic, authoritative, room-shaking bass for \$200 less, with strong response in my room down to 30Hz. (Below that, the windows rattled.) I've heard more nuanced subterranean performance from other, far more expensive subwoofers, but the V-1250THX does not produce one-note bass, nor does it call attention to its presence—only its absence.

Probably thanks to the tweeter's wide, smooth dispersive pattern, the direct-radiating Surround 550THX speakers create a broad, unobtrusive, and reasonably large sur-



round picture that never fixes itself to the speaker boxes, even on highly directional surround signals. The original THX surround scheme—a pair of dipoles with their nulls facing the listener—is more capable of creating a big, enveloping sense of space, but the 550s are quite effective nonetheless.

The Big Picture

The 750THX system manages to get out of the way, effectively delivering the goods both on movie soundtracks and surround-sound music. Most smaller, inexpensive systems can sound slightly metallic and "peaky" in the upper midrange/lower treble region, or somewhat lumpy in the mid-bass. The 750THX system exhibits neither of these problems—and no serious problems at all.

In my small room, this relatively small system played much bigger than it looks, and without strain even when pushed to high SPLs. It strikes a nice tonal balance between detail and pleasing warmth. The seamless blend of woofer and satellites is easy to achieve; once it was set, I never felt the need to mess with it. Dynamically, I can't fault the 750THX system—thanks, in part, to the subwoofer's outstanding performance.

I was surprised to find myself comparing this \$2400 system to the Sonus Faber Concerto/REL combination, which costs over \$6000. The M&K system doesn't look half as good or sound nearly as rich and airy, particularly in the upper mid to lower treble region, but it manages to provide a similar kind of effortless, non-fatiguing, yet dynamic and detailed performance, creating a billowy,



three-dimensional soundstage that stays clear of the speaker baffles.

When Denon's David Birch-Jones paid a visit to run me through the Denon AVR-5700 receiver's features for my review of that product, I told him about the Dynaudio Audience 5.1 speaker system I'd recently reviewed and planned to use again. Birch-Jones unhesitatingly endorsed the far less expensive M&K system, saying he had every confidence it would do the Denon justice. He was correct, even though the 750THX system's impedance is 4Ω for the front speakers and 8Ω for the rear (per THX specs), and Denon recommends a minimum speaker impedance of 6Ω.

The \$5000 Dynaudio Audience system offers a much different (richer) though equally attractive sound; I'd probably prefer it over the M&K in a system used for music and movies. But the M&K 750THX is not at all the cold, analytical, unforgiving package I'd expected. In fact, once I'm settled into our new home, I might just buy it for the family room.

There's no doubt that other THXSelect systems will appear from other companies. However, the 750THX's many sonic strengths and lack of glaring weaknesses make this \$2400 system a remarkable value for the money and an easy recommendation. 🍌