

Contour T 2.5



Home Theater, November, 2000

Dynaudio Contour Theater Speaker System by Chris Lewis

If you like speakers, you have to like a company like Dynaudio. You don't necessarily have to like what they offer - their stuff is either going to sound good to you or it isn't - but you have to admire their dedication to the craft of speaker building. Regardless of whether or not you ever buy one of their products, you should be happy that companies like this are around. Any company can sell speakers (and good ones at that), but the backbone of every industry are those companies that develop, design, and build the components that drive it. Dynaudio is probably better known for their long history of supplying drivers to any number of different speaker companies than they are for their own speakers - although that's starting to change.

Building on the success of their Contour series and intended as a home theater speaker line that doesn't compromise musical performance, Dynaudio's new Contour Theater series arrives officially with the floorstanding T2.5 (\$4,499/pair), the multipurpose T2.1 (\$1,799), and the Contour Theater subwoofer (\$2,999). Both the T2.5 and T2.1 employ a 1.1-inch soft-dome tweeter that is based on the company's highly regarded ESOTEC D260 design. The tweeter utilizes a hybrid double-magnet system (neodymium/ferrite) with a damped rear chamber and is set into a cast-aluminum front plate for increased rigidity and cooling. Both full-range models also employ dual 6.7-inch midbass drivers with one-piece cone diaphragms made from a Dynaudio-developed magnesium-silicate polymer (MSP) to help minimize audible distortion and coloration caused by cone breakup. A 12-inch version of the same driver anchors the sub, along with a conservatively rated 210-watt amplifier. The back panel offers phase and level controls, as well as adjustable crossover settings of 80 hertz, 95 Hz, and bypass. All of the drivers use pure-aluminum-wire voice coils.

Build quality on the Contour T series doesn't end with the top-shelf drivers. The cabinets, which are built in an entirely separate Dynaudio facility than the drivers and crossovers to avoid contamination of any kind, feature a unique dual-enclosure construction that is effective in reducing resonances and other image smearing cabinet colorations. Beneath the outer cabinet is a second, internally damped enclosure with no rigid connections to the outer shell. Based on precise measurements of problematic frequency nodes, additional internal bracing and damping are applied throughout. The relatively inert cabinets are constructed from two layers of MDF with a 1-inch-thick baffle, and they have a single set of Dynaudio's gold-plated WBT binding posts. Custom-built first-order crossovers are applied to both the tweeter and woofer sections, delivering considerable linearity and phase accuracy. The upper woofer in the T2.5 is electrically adjusted in phase to reduce early floor reflection.

My demo time with the T series was two-fold, starting in a large room with a more elaborate seven channel rig that included a set of T2.5s in front and T2.1s pulling center-, side-, and rear-channel duty. Two Theater subwoofers rounded out what proved to be a prodigious bottom end. Starting with "The Haunting" in THX Surround LX, I was immediately taken by the full-range punch and thunderous low frequency response of the system. Granted, two healthy subwoofers had much to do with this, but they weren't the only explanation behind the successful combination of widely dispersed, well-layered definition and raw rumble that this setup offered in the lower regions. The T2.5s are hardly bass shy, and the T2.1s deliver well in the neighborhood of their 30-Hz low-end rating. The ominous foot-steps of the evil spirit as he chases our hapless heroine literally shook the room and, having lived in LA. long enough now to understand the potential of a gyrating ceiling, had me relocating to the perimeter of the room - near the door.

Make no mistake, this setup will shake a brick wall without breaking a sweat, but this combination is not without its softer side, as well. DTS-mixed music tracks from Sheryl Crow and Roy Orbison offered a big, open soundstage full of detail and a wide array of delicacies. The sub's aggressive approach to movies was tempered here with a subtle but still ever-present demeanor that mixed nicely with the rest of the system. While the T2.1s did tip their hand at times as surround speakers in terms of localization with soundtracks, these direct-radiators knocked out the rear channels of multichannel-music tracks with the best of them. The rear sound-field was deep and airy, with a nice punch and a truly consistent timbre that helped greatly in re-creating a sense of you-are-there realism. Given that the only vocals delivered during the Haunting chapters that I used were screams of terror, these cuts also gave me my first real impression of the T2.1's center-channel abilities. Voicing was accurate and natural with female and male lyrics, and both horizontal and vertical dispersion were well-addressed by the T2.1's efficient and highly effective crossovers.

A bit of downsizing was in order for our more-intimate listening room. The T 2.5s remained in front, along with a single Theater sub, while the T 2.1 continued to handle the center-channel signals. Employing only 5.1 channels this time, I added a pair of direct-radiating 1.3 mklIs from the main Contour line as the rear channels (as yet, there are still no dipoles in either Contour series). This is a pugnacious little speaker that won't fool you like a dipole but handles surround duties nicely and is highly musical for a relatively inexpensive bookshelf model Lexicon's MC-1 pre/pro and the combo of B&K's 4430 and 4420 amplifiers were the original electronic back-bone, although I found the B&Ks' mix with the Dynaudios to be too subtle. I was a bit surprised by this, considering how good the seven-channel setup sounded off very similar B&K amps and the fact that these B&Ks have performed rather nicely with other speakers. However, rather than waste time playing scientist, I simply swapped out the B&Ks for the Krell.KAV-500 multichannel

amp and immediately found the results more to my liking, although still a bit conservative overall.

The front stage was virtually bulletproof, thanks in no small part to the identical driver complements of the T2.1 and T2.5. As I mentioned before, the crossover configurations are slightly different between the two to account for their different cabinet structures, but phasing remained highly accurate for most of the material I put through the system, and crossover gaps were never a problem. Both the car chases from "The Blues Brothers" and sonic trails of bullets and artillery shells from "Saving Private Ryan" deliver distinct front pans that the Dynaudios handled particularly well. Front-to-back pans weren't quite as convincing as they were on the seven-channel setup, but holes in front were difficult to find, to say the least.

The T2.1 continued to impress me as a center channel. The audio track for the Blues Brothers DVD unfortunately isn't the cleanest around (it is, after all, a Dolby Digital remix of a comparatively unsophisticated original track), but the center-channel image was again natural and articulate with both vocals and music. The sax from the Peter Gunn theme that runs throughout the movie was particularly crisp and memorable, and this flick's classic quips were rendered nicely, despite the inherent hollowness that this soundtrack occasionally displays.

Music in two channels gave the T2.5s a chance to strut their solo stuff. They offered up significant detail and superb imaging on Sara K's "Brick House" from Chesky's "Super Audio Collection, Part 1". While the Theater sub has musical talents to go along with its considerable soundtrack prowess, the agile and deep response of the T2.5's dual 6.7-inch woofers won't have you missing the sub with music. The entire presentation is clean and tight from top to bottom. Having been in a Jimi Hendrix mood lately, I gave "Electric Ladyland" a spin, as well, and let the T2.5s take a crack at its wide range of sonic imagery. Again, resolution was outstanding, and - while they weren't as dynamic with music as some of the pairs I've heard in this price range, including the excellent Contour 3.0 - they suffered very little from audible distortion or colorization. Given their relatively low sensitivity (86 decibels), more amplifier power can go a long way in opening the T2.5s up to their full potential.

Aesthetically, the Contour T series exhibits class and craftsmanship rather than flash. Even a cursory glance around the cabinets reveals that advanced assembly techniques were applied here for a finished look similar to high-end furniture. A variety of natural veneers or matte-lacquer finishes are available on the full-rangers: rosewood, cherry, black ash, and beech are standard; bird's eye maple, walnut, black lacquer, and white lacquer add 10 percent to the final price. Rosewood and cherry are the stock veneers for the sub, with other finishes available by request. The T2.5s include an integrated stand attached to the cabinet base with neoprene bushings - which helps explain why they weigh in at a solid 53 pounds each. Dimensions are 40.4 inches high by 8 wide by 12.3 deep. The T2.1 measures 22.4 inches high by 8 wide by 11.8 deep and weighs 28.8 pounds, while the sub lists at 28.9 inches high by 13.1 wide by 21.9 deep and 101 pounds. All of the cabinets are bass-reflex enclosures. The T2.1 ports to the rear, while the sub and T2.5 port to the front. The cabinets are magnetically shielded, and the T2.5 and sub are fitted to accept adjustable floor spikes.

Quality is never cheap in this business - or anywhere else for that matter. But quality breeds confidence, and that's something that is hard to overestimate when you're talking about laying down thousands of dollars for a speaker system. Whether or not a Contour T system is for you depends on your ear - once you reach this level of quality and performance, subjective opinion often goes from being the main factor to the only factor in the final decision. Still, these are excellent-sounding speakers that exude build quality and should give you several years of top-shelf performance. Give them a listen and a look for yourself and I think you'll agree.

Build Quality: 94
Value: 87
Features: 88
Performance: 90
Ergonomics: 87



Hi-Fi News & Record Review, August 2000
That Contour Moment by Ken Kessler

If you only know this brand for its drive units or its pro monitors, it's time you took a look at the Dynaudio Contour T2.5.

Most of us are familiar with Dynaudio mainly because of the ubiquity of its bass units. You know the ones, with the distinctive (and oft-copied) oversized dust-cap with slots around the edges. But it was only last year, when I reviewed the small two-way Contour 1.3SF for an American magazine, that I actually played with a pair of complete Dynaudio loudspeakers.

For that assignment, I was sent over to the factory so that I'd know a bit more about Dynaudio than its OEM successes. Understandably, the company suffers a major identity crisis in that most people think of these German-led Danes only for supplying woofers to the likes of Wilson Audio. During my visit I was told that drive unit sales account for as little as 5-10% of the company's turnover. Dynaudio wants the world to know that it's among the dozen or so largest builders of complete speaker systems in the world, having been at it for over a quarter century, and with possibly the widest range: from £399 per pair for the entry-level Audience 40, up to £50,909 per pair for the Evidence. How's that for keeping hold of their customers as they evolve from beginners to lunatics?

Dynaudio's factory is in the same neck of the woods as Lego, the region's most famous concern, an area oozing CE-approved political-correctness, and reeking of that Scandinavian coolness which gave the world minimalist furniture, Vikings with attitude and leggy blondes. Moreover, there's a sense of confidence which is evident through Dynaudio's self-sufficiency. What we have here is a speaker company which makes everything bar the speaker terminals (gilded WBTs, of course), a throwback to the days when a speaker manufacturer was expected to have, at the very least, its own cabinet factory and a wide selection of self-made drive units.

What's occupied me this month is a new floorstander in the Contour series, a range specifically designed for A/V usage in that the models are shielded and the line-up features a centre channel voiced to match every model in the range. I auditioned the Contour T2.5 as a stereo pair, which is the other way it will be marketed, but I suspect that a large proportion will serve as main L/R speakers in a 5.1 surround rig, with smaller Contours for the side or rear roles; there are nine models in the range including the centre speaker and hit-rodged variants of the basic designs. The T2.5 is not, after all, a small speaker, with dimensions of 203x1020x300mm (whd), which give this 35-litre enclosure the profile of a full-range Euro speaker conceived to fill rooms of up to 5x8m with ease.

Although it looks old-fashioned in light of swoopier modern designs with compound curvature, and those which have moved away from woods, the T2.5 is handsome and imposing. The review pair arrived in a luxurious rosewood veneer, with a severe black grille. The finish is hard to fault, the units are solid and hefty at 24kg, but the overall image is dated. Hell, even ATC has curved-edge models which avoid the look of the creases in cavalry twills. Admittedly, I spend most of my listening time gazing at either small Martin-Logans, old Quad electrostatics or Sonus Faber Guarneris, so it's been some time since my field of vision was filled with cubist constructs of an earlier era; conversely, the Dynaudios will not upset traditionalists who favour boring boxes.

Having seen what goes into a Dynaudio cabinet, including copious amounts of bracing, I expected nothing less than a robust and resonance-free enclosure. It's fashioned of multi-layer sandwich construction with 19mm MDF sides and a front baffle made from a 22mm thick MDF section. In addition to the rosewood finish of the review samples, cherry is also offered at no extra cost, while most other woods are available as options. The cabinet is damped with bitumen, and comes with substantial spikes. In essence, there's nothing which needs tweaking.

Housed in the upper half of the front baffle are two 170mm single-piece moulded polypropylene cone woofers. They boast extra long 75mm aluminium wire voice-coils for long-throw excursion, and are fitted with a double magnet system so they're fully shielded. They're positioned above and below a 28mm soft dome tweeter, which is 'Magnaflux-damped' and has voice-coils wound with pure aluminium wire. The tweeter uses a 'Hybrid Double magnet system' composed of both neodymium and ferrite, with a damped rear chamber; the driver is mounted on a 4mm die cast aluminium front section. Below the drive-unit array is a port, the front-firing position making these speakers more immune than you'd expect to the influence of positioning close to the wall. They actually prefer to work at least 0.5m from the walls, with 1m even better, but it's nice to know, should you be forced to locate them closer to the walls, that the port is free to breathe.

Fitted with an impedance-corrected crossover, the T2.5 is rated as a 6 ohm speaker. Dynaudio is lavish with the specifications, so I can tell you that the impedance never dips below 4.4 ohms, with a high of 10.3 ohms from 20-200Hz. Sensitivity is only 86dB/W/m, but it didn't seem all that hungry. In addition to using the Dynaudios with the 300W/ch Nu-Vista, they were also driven with 25W/ch tube amps from Nightingale without problems. The crossover is made with high quality metal-foil polypropylene capacitors and low-tolerance air coils, and the crossover point is 1600Hz (6dB slopes); the reflex port is tuned to 32Hz, while the frequency response is stated as 29Hz-25 kHz (+1-3dB).

Although I'm easy on speakers and have yet to blow a drive unit with too eager a twist of the volume control, I suspect that the T2.5 will take all you can throw at it. The amplifiers were barely working in the main listening room (12x18ft), and the levels and dynamic swings were more than satisfactory with powerhouse recordings like the Glory soundtrack, The Sopranos signature tune, 'Woke Up This Morning', and a host of 96/24 tracks courtesy of Classic Records. While I didn't feel any compulsion to schlep the Dynaudios into the A/V room, I have no doubt that they'll withstand the rigours of home cinema.

But, ironically, they're almost too good for it.

It's too early in the history of home cinema to be deliberately contrary or smug, but I have a nasty feeling (which I believe is shared by others) that movie soundtracks aren't anywhere near as demanding as pure music. 'Subtlety' is not a quality which seems a prerequisite of home theatre — and, yes, I realise that such a statement oozes hypocrisy when coming from one who cherishes such high-end AV wares as Lexicon processors and Martin-Logan's AV-targeted speakers. But concurrent with listening to this speaker, I had AV tasks to complete and found myself marvelling at the differences — nor the similarities — in the two experiences. All that I admire about the Dynaudios, including a sweet, smooth top end and superb retrieval of fine detail, matters little in home cinema for most of the time.

Let me make something perfectly clear: I expect all AV systems to be dual-purpose in the sense that they'll be used for music-only duties as well as video, and therefore they need to cope with the refinement of music as well as the bombast of cinema.

In that respect, speakers used for home theatre have to be as good as the speakers you'd use for pure music. But they won't show their stuff during film playback beyond demonstrating the much-needed capability to play loud, deep and clean. And with five channels surrounding you, they have 'help' in recreating a space.

It just so happens that my sessions with the Dynaudios followed a demonstration in the USA which set out to prove that two speakers are all you need to cope with home cinema. And while I have my reservations, that demonstration did sow seeds of doubt about multi-channel. Suffice it to say that the Dynaudios reminded me of that when I fed them the soundtrack portion from a few DVD movies mastered for 5.1.

What made the Dynaudios so special, and why they deserve not to be considered solely as two-fifths of a surround sound package, is their capacity for sounding huge. Blessedly, the enjoyment of this quality is not restricted to the listener in the hot seat; and I have to admit that this virtue is a direct result of creating a speaker to meet home cinema requirements. (For all, that is, bar those who watch films alone.) Using this as a platform from which to create a sound signature, the T2.5s then go on to excel at good ol' stereo. Which means that we're now witnessing turnabout as fair play. In other words, and in repetition of my experience with Theta's ostensibly home theatre Dreadnaught amplifier, there are AV products which are actually of benefit to those who listen only to two-channel playback.

In all the key areas, the T2.5s reproduce sound with the levels of competence and cohesion expected of speakers costing £2456 per pair. (Would it have killed them to round off the price at £2450?) The imaging is nearly as holographic as a small two-way, reminiscent of Dynaudio's own 1.35E, with a deliriously wide soundstage and better-than-average depth when the speaker clears the walls by 1m or more. What was missing, although had I anticipated it in a speaker which is (1) AV-oriented and (2) Teutonic in heritage, was any treble edginess. Transients were crisp enough to respond to staccato guitar work and ragtime piano, while the midband almost veered toward the warm. Vocals lacked rasp or chestiness, and I had to turn to crappy discs to incite sibilance.

Ironically, the only area I could find fault with was the bass. Don't get me wrong: there was plenty of it, as you'd demand of two Dynaudio woofers per side. But it was almost too soft, the other extreme from the overly damped bass which appeals to modern listeners. I'd like to think that this mild lack of precision way down below was some form of compensation for the sound of amplifiers, source components and source material which err too far in the direction of synthetic bass. However, when asked to reproduce the deepest thwacks in Willy DeVille's 'Assassin Of Love' and Isaac Hayes' 'Theme From Shaft', there was a decidedly lumpy, indistinct sound which was out of character with the rest. Then it hit me. Twice.

Calling in a subwoofer — the REL Strata II was on hand cured the misbehaviour below around 70-80Hz. Again, I was reminded of the speaker's identity in an AV milieu, and it's the only reason why I keep on mentioning it, despite this review appearing in the pure audio section; these speakers like a sub. Moreover, although I couldn't find any in the boxes I had, Dynaudio supplies foam plugs for tuning the ports. I borrowed some from another ported speaker and they, too, helped control the lower registers.

At the risk of sounding like I've gone all nationalistic, the T2.5 makes me think of the larger classic British speakers from the late 1970s, but with far greater power handling and speed. And that's a compliment. What it does so well, something which, say, my old Spondor BC1s cannot, is cope with AV.

Here, then, is a speaker to consider now for your two-channel needs, with an ear toward multichannel in the near future. Believe me, they'll grow with you.



Audio Video Interiors, August 2000
Hot Products by Howard Doctor

Dynaudio Contour T2.5 & T2.1 Speakers

Astute readers might remember from previous reviews that I prefer to avoid using subwoofers whenever possible. Naturally, this places some additional demands on the main speaker system, but my philosophy is that four or five full-size, full-range speakers should be able to do the job. It's not that I hate subwoofers or anything; I just find that they are usually expensive adjuncts to anemic speakers.

It seems I am not alone in this derangement. The Dynaudio Contour speaker system I've been living with for the past month was received before the Contour Sub was released, and was thus reviewed without a subwoofer, not that it necessarily needs one. Dynaudio is a Danish speaker company that is probably more famous for supplying drivers to other companies than it is for finished products. The Contour system configuration reviewed consisted of four floorstanding towers and a smaller horizontal center-channel, all with the same driver compliment. They are not invisible—not even small—and they are not based on any magical new technology. They are perfectly conventional speakers in wonderful furniture-grade cabinets, and they do their job competently without attracting the slightest attention to them-selves.

Technical

Dynaudio designed the Contour 2.1 center-channel to blend seamlessly with the T2.5 towers by using the same set of drivers in both models. This might seem obvious, but there are a stagger-ing number of center-channel speakers that have little or nothing in common with the main (left/right/rear) speakers with which they are part-nered. It seems to me that making a speaker small enough and light enough to sit on top of a TV set has proven to be a bad idea. This is made only too clear upon listening to these plastic horrors in any electronics store. No thanks, just looking.

So, the Danes built the Contours in serious boxes veneered in a very teak-like cherrywood (also available in rosewood, black ash, beech, bird's-eye maple, walnut, lacquers, etc.) over a thick sandwich of MDF and are appropriately inert thanks to elaborate cross-bracing. Little details reveal that they are built by craftsmen: the subtle groove that adds a

distinctly European look to the front face and a second set of clip sockets on the back to hold the grilles, should you wish to listen to them naked. These are outward manifestations of the attention to detail that is evident throughout these speakers.

The 35-liter T2.5 enclosures stand on dark-gray plinths, which include carpet-piercing spikes to keep them very stable. The stability of a speaker might be of no concern to those without offspring, but for parents, it merits very serious consideration if you want to avoid the nightmare of lifting an 80-pound speaker system off your traumatized 45-pound child.

At the heart of all Contours is a pair of 170 mm (6.5-inch) woofers that use cones made from a mineral-loaded plastic developed by Dynaudio to provide low mass and low coloration. Lowering the mass increases the driver's efficiency and allows it to start and stop very quickly. In addition, those wily Danes put unusually large aluminum-wire voice coils on all their drivers with an ingenious magnet system that exhibits a low external magnetic field. This makes it safe to place the speaker in close proximity to even the most magnetically sensitive TV without the bizarre purple-and-green syndrome that poorly shielded speakers inflict. These woofers were the brainchild of the engineer who started Dynaudio 25 years ago, Wilfried Ehrenholz, Dynaudio Director and Founder, and Mark Thorup, Dynaudio Lead Engineer, and the Dynaudio Engineering Team.

Naturally, these unusual woofers would be wasted if they were not teamed up with an equally advanced tweeter, and the Contour tweeter is just such a beast. The spec sheet for the 28 mm (1-inch) soft-dome tweeter abounds with technical highlights: a vented pole piece, ferrofluid damping/cooling, and a thick cast-aluminum front plate that doubles as a heat sink. All good stuff.

Tying the two woofers together with the tweeter is a first-order (6 dB/octave) 1600 Hz crossover with a host of impedance conjugates. In plain English, this simple but elegant crossover splits the signal into two frequency ranges, feeds the appropriate range to each driver, and ensures that the amplifier sees a stable, easy-to-drive, 6 ohm load. Proponents of first-order crossovers inevitably point to their excellent phase linearity, and Dynaudio's design is a shining testimonial to the benefits of this philosophy. I don't happen to share this enthusiasm for low-order crossovers, but I must confess that the crossover point of the Contours was entirely inaudible, a feat that is astonishingly rare. There is a slight difference in the crossovers of the T2.5 and T2.1, which is due to the different cabinet geometries. The speakers receive their signals through a pair of WBT-brand connectors placed very low on the back panel, exactly where all makers should put them, yet few do.

Listening

Positioning the Contours is a piece of cake as long as you don't need to use your listening room for anything else. In my room, the T2.5 floorstanders went three feet out from the back and side walls, and the T2.1 center-channel went on a stand above the monitor, with the factory-supplied foam plug in the rear port because it was very near the wall. I let the Contours warm up for a couple of hours before I started listening to them in earnest.

Once the formalities were dispensed with, I set about trying to find the chink in their armor with my most critical material. They rebuffed my efforts with barely a shrug, returning a rock-solid stereo image with a full, slightly polite sonic signature. My old reference recording of Lincoln Mayorga was in its element, and Jennifer Warnes exhibited her full complement of power and subtlety, although perhaps I should use something less emotionally charged.

All in all, 'Braveheart' was nothing short of superb. The lush soundscapes of the Scottish countryside were well rendered, and the battle scenes were dynamic and captivating. The Contours' consistent voicing made the onscreen movements absolutely seamless, and the bottom end of the 10 woofers let me feel each footfall. These speakers do not produce the kidney massage and artifice of a sub-woofer, but they do provide a deep and very realistic bass.

There are a couple of scenes in 'Pulp Fiction' in which the music completely overwhelms the dialog, but the Contours made Bruce Willis come across as clear and articulate, which is no small achievement. Switching between Dolby Digital, Pro Logic, and DTS, I failed to find anything that the Contours did not do well. I love to use Sir John Geilgud for my spoken-word tests, because he has such a distinctive voice that mercilessly reveals any anomalies. Through the Contours, his tone was rich and crisp, with a slight recession in the midrange. This moved Sir John a couple of feet further back from me, but it made some tracks that are normally a little "forward" sound better balanced.

With their high-efficiency drivers and large voice coils, the Contours do not require a large amplifier, in fact, they can achieve impressive out-put levels with as little as 75 watts per channel. Exploring their dynamic range somewhat further, they remained completely composed and produced awesome output levels with the 800 watts per channel delivered by my reference amplifier, the superb QSC DCA3022. Perhaps it's an acquired taste, but I really enjoy techno dance tracks playing at club levels in my living room.

Conclusion

I could live with these speakers for a very long time, but at \$10,800, as configured in this review, for a complete set, it seems unlikely that I will have an opportunity to do so anytime soon. They are immensely satisfying, and fabulously built, albeit a trifle room dominating. If you've got the scratch, the Dynaudio Contours are an itch worth having.