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Dunlavy Audio Labs SC-IV/A Loudspeakers

by Jon Gale

"OK, where is the nearest Dunlavy dealer?" So spoke Disctwin, (my friend's online handle), he of Krell/Wilson ownership. We had just set the Dunlavy SC-IV/As up, and we were rewarding ourselves with a bit of single malt, when, at the end of the first piece played, he made the above exclamation. Bear in mind that while Disctwin is, ahem, highly opinionated, he rarely makes such immediate declarations as this. He was unwavering in this opinion throughout the review period, eagerly lending his help in moving 400 pounds of loudspeaker at a moment's notice. He must have considered this help the price of admission. I didn't complain -- I needed the help!



While most reading this will already be aware of the Dunlavy SC-IV/A's design criteria, let's take a moment to bring any newcomers up to speed. At first glance of a grilleless SC-IV/A, the neophyte will notice the stacked vertical array of drivers. This symmetrical configuration of drivers, along with phase-correct first-order crossovers, stems from the designer's belief of strict adherence to radiation pattern and phase in loudspeaker design. While this review does not afford the room for a full technical design brief, I *highly* suggest that you pay a visit to the Dunlavy website for some thoroughly insightful reading from the pen of the SC-IV/A's designer, John Dunlavy.

The SC-IV/A is a biwire/biamp-capable five-driver, three-way loudspeaker of not inconsiderable size using two 10" carbon/paper woofers, two 5" mineral-filled poly-cone midrange drivers, and one composite textile-dome tweeter per channel. Rated efficiency is 91dB, and impedance is a nominal 5 ohms. The speaker's crossover is of a first-order design, and the symmetrical driver array dictates the speaker be tall (72"), slender (12"), and deep

Review Summary

Sound Prodigious bass extension coupled with a midrange that has "little or no character at all" and treble that "exhibited a slightly up-front character."

Features "A biwire/biamp-capable five-driver, three-way loudspeaker of not inconsiderable size using two 10" carbon/paper woofers, two 5" mineral-filled poly-cone midrange drivers, and one composite textile-dome tweeter per channel."

Use Big, but seemingly designed to work in real-world rooms, often with boundaries that would give other speakers problems, so setup is easier than you might think.

Value "Even at \$8k the pair...the Dunlavy SC-IV/A is one of the better values in high-end audio."

(18"). You will also notice the patented use of thick felt to address the diffraction effects of the stepped front baffle.

While some may look at this speaker as being just a large box, I look at it a bit differently. I see a highly engineered product made to address its design goals in the simplest way possible. Case in point: front-baffle diffraction. The designer could have used a radiused sloping front baffle or a very organic, curvy cabinet structure. This would also result in skyrocketing manufacturing costs. Instead, John Dunlavy chose to step each driver rearward in a square front baffle. He then lined the front baffle with an application of thick felt. This is but one example of what I love in a product: good engineering with simple manufacturing.

Setting up

The support base for the SC-IV/A is supplied unattached. Simply lay each speaker on its side or rear, lift the bottom and attach the panel via the supplied hex-head bolts. That's it. While the SC-IV/A is a large speaker, it is surprisingly easy to move around the room for positioning. There are no provisions made to accommodate floor spikes, the manufacturer feeling the speaker is of sufficient mass to obviate the need. With my short-nap carpeting, I found this to be true. The addition of downward-pointing cones had virtually no sonic effect.

Cable hook-up is accomplished via four high-quality binding posts per speaker, housed in a recessed cup. I do have a few qualms concerning the size of the cup. It simply does not afford the room needed for present-day cables and connectors. In fact, be VERY careful if you use a cable with oversized spade lugs. Late in the auditioning, I hurriedly hooked up a pair of Harmonic Technology Pro 9 cables. The connectors had to be wedged into the cup at a 45-degree angle in order to fit. The result was the tips of ALL the spades touching their opposite-polarity partner. Bright red lights from my amplifier and a sinking feeling in my stomach were the result. That, and a beautiful flying leap across the room to hit the power button! Disctwin gave me an 8.5 for form, a 10.0 for stupidity.

The manufacturer recommends a widely spaced, long-wall setup. I tried this, but not initially, being too anxious to get the reviewing underway. (I was geeked, OK?) Midway through the review period, I rearranged the room for long-wall placement, and, indeed, imaging was improved, specifically in terms of image solidity and the speakers being able to disappear more completely as sources of sound. In this case, the speakers were 18" from the front wall, the closest side wall just over four feet. Speaker separation was ten feet, and the listening location was 8.5' away. Alas, in my room, this setup was not to be. I simply cannot balance the speaker position, right/left, midway into the room -- not even close. The result was a noticeable shift in midbass/bass reinforcement toward the right side. Back to the short wall for this room. I would, however, strongly suggest initial long-wall placement if your room will accommodate. Final positioning found the speakers three feet from the front wall, 14" to 18" from the side walls. The speakers were toed in to fire just behind the listening position ten feet away. While care should be taken to treat acoustically the first-reflection points along the side walls to keep the high frequencies under control, I feel the SC-IV/As will need little in the way of bass management. This was VERY surprising for such a large speaker in my concrete room. Much more concerning this later.

Sound

After several months working this speaker every which way in my dedicated room, I have formulated several strong opinions concerning this product, especially in terms of...

Da bass

The SC-IV/A has claimed bass extension a whopping 13Hz lower than that of the SC-IV.

While I have never had the pleasure of hearing the SC-IV, amongst the praises often sung about this speaker were also comments as to its, ah, "lightness of being" in the lowest registers. In the SC-IV/A, the bass weight, authority and extension firmly entered subwoofer territory. While the Radio Shack SPL meter is quite inaccurate at the lowest frequencies, it can be used to compare levels. I was getting SPL readings at 18Hz that were as high or higher than 18Hz readings from other large speakers, even subwoofers, that have been in this room. Both the SC-IV/A and the Tyler Acoustics Reference One incorporate slightly over-damped bass tuning, with the Reference One running two compound-loaded 12" woofers. These two are the only large speakers from which I have been able to get wonderfully smooth bass response in my room. They seemingly energize the room while not exciting the room modes. Both, not too coincidentally, are designed to account for "room lift," or bass reinforcement from the room itself. While the Tyler Reference One has superb transient ability, some of the best I've heard, it just could not match the SC-IV/A's extension, power, and sense of all-out authority in this region. On the other hand, the SC-IV/A does not quite have the pitch delineation and tightness of the Tyler Reference One. In short, the problem with the SC-IV's bass extension, if there ever was one, has been handily dealt with.

Associated Equipment

Loudspeakers – EgglestonWorks Isabel; Tyler Acoustics Reference One; two Vandersteen 2Wq subwoofers.

Amplifiers – Bryston 4B-ST amplifier.

Preamplifier – Balanced Audio Technology VK-3i.

Digital – Denon DVD-1500 DVD player, Enlightened Audio Designs T-1000 CD transport, Camelot Technologies Dragon Pro-2 Mk I, Theta DS Pro Gen. III DAC.

Interconnects – Kimber KCAG, MIT MI-330 Proline Shotgun balanced, van den Hul The First.

Speaker cables – Harmonic Technology Pro-9 bi-wire, MIT MH-750 Shotgun.

Digital cables – Altis Ultimate AT&T, MIT Digital Reference coax.

Power cords – MIT-Z Cord II.

But wait, as they say, there's more! Over and above the exemplary low-frequency delineation and extension, I believe there is something very special happening here. I speak of the wave launch into the room, which may take a bit of explaining. We have all heard the common wisdom that bass is omnidirectional below a certain frequency, usually stated as being around 80Hz. This unfortunately has lead people to believe that subwoofers can be placed anywhere in a room. Then why, I ask, have I always been able to point out the subwoofer location, regardless of crossover point? Because there is something else entirely going on. While below a certain frequency, bass may become omnidirectional, but the point at which the bass is "punched," or launched, into the room is clearly discernible.

The SC-IV/A is simply uncanny in its ability mask the room's loading point. Using highly regarded orchestral recordings (of which I was a glutton during the review period!), I found that the sense of the massive wave that the basses energize was finally being reproduced

in a room! Think about what happens in a large hall. The bass, launched from the instruments and stage floor, seems to flow past you in a massive wave. A typical small room, beginning at the room modal point, cannot support the wave, so it pressurizes instead. The note is still there, but delivered in a way not heard in a large hall. The SC-IV/A seems to dodge this pressurizing effect and re-create concert-hall bass better than I have ever heard. I want to be clear that this is no small contributor to the suspension of disbelief we must apply in home playback. Whether this bass quality was due to phased-array design or simply each pair of drivers being different distances from room boundaries (thus setting up differing reinforcement/cancellations), I do not know. The manufacturer, when questioned, stated each contributes to this effect evenly. I have my doubts. I have a close friend who owns Genesis 200s, and I am very familiar with this system and room. The 200s use multiple driver

columns to handle the bass. Each driver is obviously at different distances from ceiling/floor boundaries. While possessing quite stunning bass quality in their own right, they do not have the disappearing wave launch of the SC-IV/As. Personally, I would put more weight in the phased-array design as being the major contributor in this phenomenon. Without question, the SC-IV/As gave the best bass response that any full-range transducer has delivered in my room. Period.

The upper octaves

Subtitled, "Don't blame the messenger."

Ascending to the midrange/treble, it is very much a harder call. Of all the pieces in the audio chain, speakers are the most fraught with difficulty in the manufacture and design. They get all the blame, and they get all the glory. What they don't do is tell the whole story. The majority of speaker designs, let's face it, are more works of art than true design exercises. A designer will play with the vagaries of crossover points, radiation patterns and frequency response to be pleasing in a variety of rooms using a broad range of software. A far smaller minority, however, designs with but one goal in mind: to replicate the input as faithfully as possible. Excluding the retched state of software for the moment, this is, of course, the way it should be. The SC-IV/A's designer, John Dunlavy, is firmly in this latter design camp. The whole of the Dunlavy line is arguably the most thoroughly tested range of speakers on the planet. This results, in the truest sense of the term, in a very accurate loudspeaker.

The midrange voicing shows not a hint of chestiness or congestion, nor is it threadbare in this region. The response is weighty and powerful at times, delicate and nuanced at others. Quite frankly, I found little or no character at all in this region. It seemingly changed voicing with every new disc played. I even tried to trip it up in trying a wide physical placement along my short wall, the outside corner of each cabinet being just 14" from the side walls. The result? A bit more low-end weight but hardly a change in the lower to middle midrange. This also speaks well of the evenness of the radiation pattern in this region.

In fact, I find many large full-range speakers to slight the midbass, much to the detriment to the musical fabric. A large speaker simply **MUST** move a great deal of air in this region. The inability to do this results in a subjectively overly bright, analytical presentation. The SC-IV/A suffers no such loss. In large orchestral works specifically, the meat of the orchestra (cellos, violoncellos, contrabassoons, etc.) is firmly rooted to the stage and very well delineated. The presentation of piano is another aural treat with the SC-IV/A. The solidity of chords following along with the melody seems to anchor the whole presentation upon a believable stage. Overall, I find the upper bass/lower midrange of the SC-IV/A to offer quite natural dynamics and splendid delineation, delivered with weight that was intoxicating at times.

The treble response of the SC-IV/A has been a subject of continuing debate for some time. While I, at times, can hear why, I believe this is mostly a case of blaming the messenger. When I read "careful system matching is mandatory," I also read a reviewer who is couching his opinion. Let's face it, *any* accurately voiced loudspeaker mandates careful system matching; this should be considered a given. The real problem as I see it is in the abysmal recording practices of the engineering community. The SC-IV/A is truly a garbage in, garbage out loudspeaker. With well-chosen software, the SC-IV/A is just fine thank you. The subjective in-room frequency response I found to be very even, with a slight rising trend in the uppermost octaves. That said, I do feel the treble region is run perhaps a decibel or two too hot, being that all discs played exhibited a slightly up-front character in the treble, along with the highlighting of poorly recorded vocals with excess sibilance. This tonal voicing seemed to at times work against the superb coherency of the SC-IV/A. One of the benefits of

a truly coherent loudspeaker is the increase in realistic imaging. Every instrument becomes more distinct in stage placement while simultaneously being tied together in an organic whole. The slight up-front character of the SC-IV/A's voicing results in this "organic whole" being delivered just in front of the plane of the speakers, leading to a slight discontinuity in depth perspective. Instrument image size was clearly outstanding. Mandolins were re-created with their small bodies intact and laser-like stage placement. Basses were rendered in their full, resonant-cavity, blooming glory, while being firmly anchored to the stage. Large orchestral works were truly a treat with the SC-IV/A, combining fine portrayal of the intimate along with the scale of a large hall.

The rest of the story

The SC-IV/A is one of the all too few large loudspeakers that do not sound like large loudspeakers. Whether this is due to its time aligned nature, the phased array driver configuration, or the minimal baffle, solid cabinet construction, does not matter to me. What I do know now is the SC-IV/A images like a minimonitor, while being able to unleash gale-force dynamics and SPLs at the drop of a hat. Here is another contributor to the suspension of disbelief. The sense of worry in running out of dynamic headroom when playing large-scale orchestral music has vanished.

Coherency, or driver integration, is virtually seamless. Combining the disparate radiation patterns of these drivers was surely a Herculean task. The sonic result of this superb integration is a speaker that gives very few aural clues as to its mammoth size. In fact, I find that only the slightly elevated treble level gives a clue as to the sound's origin.

It is in the area of resolution that I found the SC-IV/A did not seem to match the other superlative aspects of its performance. Overlapping the SC-IV/A review period were also the EggelsonWorks Isabel and the Tyler Acoustics Reference One loudspeakers. Each of these speakers use midrange and tweeter drivers that are in the top tier in what is manufactured today. The SC-IV/A, especially in the treble, sounded ever so slightly opaque in comparison. There just wasn't the sense of being able to listen deep into the recorded acoustic. I want to stress, though, so slight was this difference that I'm not sure I would have noticed this if the other speakers were not immediately on hand.

End notes

I believe we are finally seeing a glut of speakers coming to market that actually seem to be designed to perform optimally in an actual room. The Dunlavy SC-IV/A is just such a speaker. In the SC-IV/A, two aspects of its design stand out, to this listener anyway, in terms of allowing the speaker to work with room boundaries. First is the evenness of its radiation pattern. I believe this is what allows the SC-IV/A to be spaced soooo widely apart and still retain splendid center-image specificity. In fact, using well-recorded pop material, I found that center vocalists were astonishingly fleshed out and solid, with nary a trace of image wander.

Secondly, the handling of the low frequencies. That such a large speaker, with such prodigious bass output, can be placed so near room boundaries is something of a minor miracle. At one point I had the SC-IV/A a mere one foot from the front wall. Not only did the bass NOT become lumpy, I lost precious little depth perspective.

Even at \$8k the pair, the Dunlavy SC-IV/A is one of the better values in high-end audio. It is rare that a large speaker actually delivers in its promise of low-end extension and driver integration. Even more scarce is the large speaker truly designed to work within the walls of a room. I'm of a mindset that has never placed much value in the large speakers on the market, usually preferring a well-set-up sat/sub system in terms of room integration. Well,

I've learned one thing from the SC-IV/A: Sometimes, just sometimes, bigger truly is better.

...Jon Gale

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Dunlavy Audio Labs SC-IV/A Loudspeakers

Price: \$8000 USD per pair.

Warranty: Five years parts and labor.

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