Spendor SP1/2R2 Loudspeaker

Updating A Classic

Robert E. Greene

Few speakers have arrived on the scene with a more distinguished pedigree than the Spendor SP1/2R2, counting as it does among its ancestors the Spendor BC1, SP1, and SP1/2. The BC1, which made its debut in 1968, was a landmark design, the box speaker that showed once and for all that low coloration was not the exclusive province of electrostatics. Spendor had been founded by Spencer and Dorothy Hughes with the idea of bringing to the public the benefits of the BBC's research program in the 1960s that aimed at producing truly accurate reproducers of the input signal for monitoring purposes. (Harbeth, founded by Dudley and Beth Harwood, had similar intentions.) This BBC program involved not only theoretical work but also a lot of comparison with live musical sources. And the BC1 was the product that established Spendor as a world leader in box-speaker design. Early readers of TAS will recall this well: The BC1 was reviewed way back in Issue 12. Objection was raised there to the limited loudness it could produce, but no one doubted its low coloration and essential sonic truthfulness.

If I may be forgiven a personal note, a pair of BC1s acquired in 1978 were my first truly high-fidelity speakers, and acquiring them was the pivotal event in my audio life. It was at that moment that I began to believe that speakers could actually sound like musical instruments, not just generically but specifically, not just like a violin in general but like a specific violin and so on. As it happens, I still have my original BC1s, though they spent some of the intervening decades with my sister, herself a professional musician, who found them every bit as addictive as I did. Later, I acquired a pair of SP1/2s, a speaker of similar design but even more accurate performance in most respects. The SP1/2 was designed by Derek Hughes, son of the founders of Spendor. There is still a certain distinctive magic to the BC1 in part of the midrange—one supposes from the unique Bextrene bass/mid driver—but overall the SP1/2 is to my ears the finest of the three, the BC1, SP1, and SP1/2 . All three were masterworks of speaker design, but the SP1/2 was the *ne plus ultra* (you can read my TAS review, which is about as close to a stone rave as I have ever written, at http://www.regonaudio.com/SpendorSP12Loudspeakers.html).

I am far from alone in this fascination with the Spendor line of two-cubic-foot boxes. They have had wide critical acclaim, indeed. All these speakers had in common the same basic design: a bass/mid driver that covered the whole frequency range from the bass, as far down as it went anyway, to the lower treble. Crossover points were quite high, and the crossover was not to a single tweeter but to a larger lower-treble tweeter, with a second smaller tweeter filling in the upper part of the top octave (crossover at 13k). This two-tweeter arrangement is unusual, indeed almost unique. But it offers obvious technical advantages. The lower tweeter can be chosen to operate well down to the crossover and below and can be large enough to minimize discontinuity of radiation pattern with the top of the bass/mid driver. At the same time, the upper tweeter can be very small, an advantage in reproducing very high frequencies. And a crossover at 13k is

not going to be—and isn't—a source of any discontinuity of an audibly troubling sort. One wonders why this arrangement was not taken up elsewhere!

The SP1/2R shares these operating principles and driver configuration. And it retains the 2' x 1' x 1' basic box size, almost exactly matching the SP1/2 in dimensions. Spendor describes its intentions in the SP1/2R as ". . . maintain[ing] the former's dimensions and uncanny mid- and upper-range accuracy at far higher sound pressure levels, with increased sensitivity, closer control of bass frequencies and lower midband coloration." Spendor is no longer owned by the Hughes family, but the intention seems clearly to have been to build on the tradition.

The most immediate reaction to a new speaker, and especially one that calls for comparison with a previous model, involves perceived frequency response—tonal balance, in other words. I shall return to that in a moment, but with the Spendor SP1/2R2, perhaps the most obvious difference from other speakers of today is in its stereo presentation. The audio world periodically goes through a kind of spasm of rediscovery of the remarkable stereo imaging that occurs when a speaker has only one driver, or in this case, a large driver (210mm = 8¼") that covers the whole frequency range up to a fairly high crossover point (2.8kHz in this case). This spasm happens roughly as often as a new one-driver speaker appears. But the Spendor BC1/SP1 series, continuing with the present SP1/2R2, has illustrated this point all along, even though people apparently tend to forget.

Now in spite of all the talk about "soundstage," as if it had an independent existence, the impression of space in stereo—as in real life—arises in fact from a multitude of small events each of which is presented as a stereo image. The sense that one is in a large space arises not from some gestalt as such but from the brain's combining these myriad small reflections and reverberations into an impression of the size and shape of the acoustic space in which everything is happening. Real space, as opposed to some sort of phase-y impression of spaciousness, is thus directly attached to precision and correctness of stereo image placement. Soundstaging of the real sort is a consequence of correct imaging, not a separate item.

And this the SP1/2R2 does superbly. It does not sound like those narrow-front, sharp-edged speakers, which often by comparison sound more spacious but less precise. One theory about this latter kind of speaker is that early diffraction from the narrowly spaced edges is the reason that such speakers sound as they do.

Whatever the reason, the SP1/2R2 is different. The SP1/2R2 nails stereo images absolutely—and thus also nails the size and shape of the acoustic venue as far as it is actually present on the recording. And if these Spendors are a little less automatically "spacious" on that account, they are arguably speaking the truth of what is on the recording.

The effect of this imaging precision is quite startling. Near the end of Dvorak's *New World* Symphony, there is a passage, just before the peroration, where the different string sections successively play the motto theme involving three repeated notes followed by two repeated notes a perfect fifth lower. It is impressive, indeed, on John Eargle's superlative Delos recording of the New Jersey Symphony (with Macal conducting) to "watch" this—because watching it is what one feels one is doing, so precisely separated and placed are the sections. On many speakers, this handing off through the sections gives a somewhat approximate spatial impression. Here it is strictly "X marks the spot."

And in the trumpet variation of Telarc's recording of Britten's *Young Person's Guide to the Orchestra*, one can hear the separate locations of the two trumpets, closely spaced though they are, as they trade the virtuoso passages back and forth. Again, all the space there is is right there in front of you. One hears into the venue as well.

On *The Paul Desmond Quartet Live* [Verve/A&M], the sense of listening into an actual night club is startling. Desmond and his fellow musicians are right there in front of you, with the drum set behind the saxophone's position, and farther behind are the listeners, clinking their glasses, applauding a bit after solos while the music continues. It is all laid out before you with a kind of specificity and detail that is almost uncanny.

And Harnoy's beautiful recording of Schubert's *Arpeggione* Sonata [BM] has a sense of focus with the cello and the piano behind it that is compellingly realistic as well as tonally gorgeous.

All speakers do stereo. But, like its ancestors, the SP1/2R2 does stereo in an unusually convincing fashion. You have to listen to appreciate this. Words can hardly do it justice. If you listen fairly close up with the speakers adequately separated, you are likely to find your idea of how stereo can work redefined, if you have not been familiar with speakers of this type previously.

This sense of real, honest-to-goodness stereo is so entrancing that it can be almost hypnotic. And in my case, this hypnosis never ends. I was enthralled by the BC1, the SP1, the SP1/2, and now the SP1/2R2 on this basis—and the SP1/2RR is as convincing as the rest, perhaps even more so. I saw some advertising description of the imaging as "razor-sharp." All I can say to that is: You'd better believe it!

But of course there is more to the sound of music than the space it is in, a lot more. And enquiring minds no doubt want to know how the SP1/2R2 actually sounds. Here lies a somewhat complex tale. Like the SP1/2, the SP1/2R2 is a "flat" speaker. The SP1/2 was indeed extraordinarily flat in room, in particular. As I described in the review linked to above, applying DSP room correction to it hardly changed the sound at all. One could hardly tell whether the DSP (e.g., from Sigtech) was punched in or out.

The SP1/2R2 is also really flat, as speakers go. I estimated from in-room measurements that its anechoic response probably fit into a quite tight window, say 3dB wide except for very narrow excursions beyond, in the region from 400Hz on up to 10kHz. (Below 400Hz, speakers tend to be boundary-influenced and hence placement-dependent, and above 10kHz the effects have mostly to do with airiness and transient definition rather than tonal character as such.) And measurements from Spendor confirmed this. (Philip Swift of Spendor was extraordinarily forthright and forthcoming about the technical aspects of the speaker, and I herewith take the opportunity to express my heartfelt thanks.).

However, within even such a relatively tight window by prevailing speaker standards, the overall shape of the response is quite different from that of the SP1/2, for those who are interested in the comparison. The SP1/2 was, within the context of flat, inclined to be slightly "warm" and perhaps a little soft at

the top. Although on the perfect axis, it was very flat and went right on out, the overall effect in-room was of some attenuation of the top octave and a little relaxation of the lower treble as well. The speaker's warmth, in fact, enabled it to achieve a very smooth in-room response—no difficulty in defeating the Allison effect—but compared to most other speakers, it was "musical" rather than "analytical." And the more rabidly treble-oriented (who are mostly people who never actually hear real music) sometimes described it as "slow" (a word that ought to be stricken from the audio vocabulary, of course, being, as it is, devoid of precise meaning).

The SP1/2R2 is different. It is definitely not warm, and indeed is several dB down in output around 200Hz compared to the SP1/2—or to anechoic flatness, comes to that—so one has to look hard for a good spot where the room picks this region up some. And it is also has a good bit more lower-treble energy than the SP1/2. If the SP1/2 is a tad down at 4k, as it tends slightly to be, then the SP1/2R2 tends slightly to be up there, both in comparative and indeed in absolute terms. The SP1/2R2 is also somewhat projected around 1.5kHz. The SP1/2R2s are, as it were, Disney Hall (Los Angeles) to the SP1/2s' Powell (St. Louis), more lean clarity, less fullness and warmth. The overall effect is of being somewhat midrange-oriented and with more presence than the SP1/2. This is, of course, very much along the lines of a great many speakers nowadays, surprisingly many of which have this general pattern of deviation from flatness, as if people felt that being really flat was not exciting enough or something.

I played the SP1/2R2s and SP1/2s side by side. The difference was easily audible on, for example, the Telarc recording of Barber's *Knoxville: Summer of 1915*. (Since I am a native of Knoxville, this piece has some special significance to me, as you might imagine.) Syliva McNair's voice sounded creamily beautiful on the original SP1/2s. On the SP1/2R2s, she became in a sense more articulate, but her voice also acquired a distinct Wagnerian cast, with more forwardness, more projection, and more presence.

As I said, this is all in the context of both SP1/2 and SP1/2R2 being "flat" as speakers go. But the threshold for hearing broadband tonal differences is around 0.1dB so there is plenty of room for speakers that are nominally flat, as speakers go, to sound different. And sound different these two do.

When one adjusts the SP1/2R2 either with automatic DSP or by hand to smooth out the upper mids around 1.5–2.5kHz and the lower treble a bit, the sound becomes admirably neutral. James Boyk's beautiful performance, beautifully recorded, of Debussy's "Reflections in the Water" (on *Tonalities of Emotion* [Performance Recordings]) sounded eerily realistic. The complete coherence of the speaker and, most likely, the use of one driver over a large part of the range gave a remarkable seamlessness to the piano sound.

I did this with the Z Systems RDP-1—penalty-free EQ!—with remarkable success.

One can really get the SP1/2R2s this way to the point where one would feel comfortable evaluating, say, microphone colorations and response errors—not to mention reviewing recordings with a feeling of confidence in one's tonal judgments. The coherence of the speaker means that it is more nearly psychoacoustically unambiguous what to do to DSP-correct the speaker than tends to be the case with less coherent speakers. Correcting one driver is easier!

The higher frequencies of the SP1/2R2 are rolled off when one is off-axis.

You should listen directly on axis and forget the idea of pointing the speakers straight ahead. This off-axis behavior is consistent with music in concerts: Concert halls have flat direct arrival but a diffuse soundfield that is very heavily rolled above around 4kHz, with roll-off often starting even at 2kHz (see my explication of this in TAS reprinted at http://www.regonaudio.com/Records%20and%20Reality.html).

But it does give a somewhat different sound from wide radiators.

Specifically, this narrow pattern in the highs will make the speaker sound less high-toppy, less airy if you will, than those speakers that aim for more nearly flat power response in the top end. Direct sound is not softened: Transients are precise. But the room sound has a lower high-frequency content than with some speakers. This narrowing of pattern in the top is also probably one of the reasons that the stereo is so precise. The sound is in this respect different from what is common nowadays, for all the contemporary nature of the on-axis response. This behavior off-axis is, however, arguably correct, in one theory of how such things should be arranged, as noted in the link above. The ear has a quite different response to the diffuse field compared with direct sound. One puts a lot of high-frequency energy into the diffuse reverberant field at one's peril. And a flat relationship between direct arrival and reverberant field never happens in live experience.

The adjustments to make the SP1/2R2 sound completely flat and neutral are likely to be quite minor, though not so minor as with the original SP1/2. Just a little tweaking with the Z Systems of the 1–5kHz range in various small ways, plus careful placement to avoid a hole around 200Hz and Bob's your uncle. (But don't even think about trying to flatten the steady-state in-room sound

SPECS & PRICING

Component type: Three-way dynamic-driver box speaker, bass-reflex loaded, stand-mounted
Driver complement (per speaker): One 210 mm Spendor polymer cone (mid/bass), one 38mm soft dome tweeter, one 22mm wide-surround dome super-tweeter
Crossover points: 2.8kHz, 13kHz
Impedance: 8 ohms nominal, 7 ohms minimum
Sensitivity: 88dB /1W/1m
Frequency limits: (-3dB) 55Hz to 20kHz
Dimensions: 25" x 11.8" x 11.8"
Weight: 40 lbs.
Price: $5995/pair

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in the top, as noted. It rolls for logical and correct reasons).

These adjustments affect most obviously symphonic music, which is the most sensitive to such balance subtleties. This is literally true. Floyd Toole and Sean Olive have demonstrated that, next to pink noise, the signal that maximizes discrimination levels among similar speakers is symphonic music, with such things as jazz combos being hardly a source of discrimination at all as far as balance is concerned. In all honesty, I considerably preferred the speaker with these small corrections in place, but they are indeed small and will be largely inconsequential for a lot of (non-symphonic) music. Indeed, for some types of solo instrument recordings, the extra presence added a feeling of realism that purely flat response did not have and one could imagine people preferring that.

The SP1/2R2 sounds very detailed and high in resolution. One can hear every note, even in complex music. And its coherence is complete. This is a speaker you can listen to very close-up without any problems with hearing the drivers separately. And such close-up listening is almost irresistibly attractive since it maximizes the perceived detail—which is very fine, indeed—as well as the sense of immersion in some other acoustic. Of course you could listen from a distance, use the SP1/2R2 as a "room-filler" if you wanted to. But I doubt that you will want to, once you have heard what the close-up experience is like. Many Telarcs for example were positively stunning in their tonal realism and sense of immersion, e.g., the Rachmaninoff Second Symphony, Baltimore, Zinman cond.

The SP1/2R2s will play loud, considerably louder than their predecessors. And they have more power available, real oomph, in the bass in particular, as far down as they go. While an enthusiast of organ music will still want a subwoofer, orchestral music is adequately covered by the speakers as they are, though a subwoofer would still be a worthwhile addition to get the feeling of really visceral weight in the very bottom. And the SP1/2R2s go down far enough that a subwoofer can be introduced with continuity. A crossover at say 80Hz should work perfectly.

The SP1/2R2s are a very easy amplifier load, with a minimum impedance of 7 ohms. If you are determined to use ancient amplifier technology, here is where it will work. They sounded well enough with my old Dyna Stereo 70 (modified as to capacitors), though naturally they lacked the feeling of unlimited relaxed power and total neutrality of the magnificent Sanders Magtech that I was using most of the time. Still, if you must tube, here you can tube without too much pain.

This has been a long, somewhat discursive, and complex review. This is because the SP1/2R2 is an unusual speaker. It is modern, indeed, in drivers, with increased volume capacity and, one might say, a little more modern balance compared to its ancestors, which, as noted, translates into their being slightly less warm and also less ruler-flat in the upper mid and lower treble. But the SP1/2R2s, for all its modernized character, still harkens back to an idea of stereo imaging precision that has been in many quarters displaced by concepts of less definite spaciousness from ultra-wide dispersion or sound off the backwall or the like.

And one can pay a price for that sense of space thus generated, as opposed to actually reproduced from the recording. I leave it to your audio conscience to ask yourself whether such spacious systems, perhaps your own, will really tell you exactly where those trumpet players in Britten's *Young Person's Guide* are sitting or, indeed, which one is playing what—or, in extreme instances, when they are alternating. There is information provided by the SP1/2R2 that escapes a great many other systems.

Everyone interested in audio ought to take a serious listen to the SP1/2R2s, just to explore the boundaries of the possible in stereo that this type of speaker illustrates, not to mention its neutrality within the limits noted. These speakers are a lot more than remembrances of things past. If you spend a lot of time around live music and have a vivid memory of the literal sound of music itself, you may well find the experience of listening to the SP1/2R2 a return to the real world of music. tas