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MUSIC IN by KALMAN RUBINSON THE ROUND

Bryston SP-3



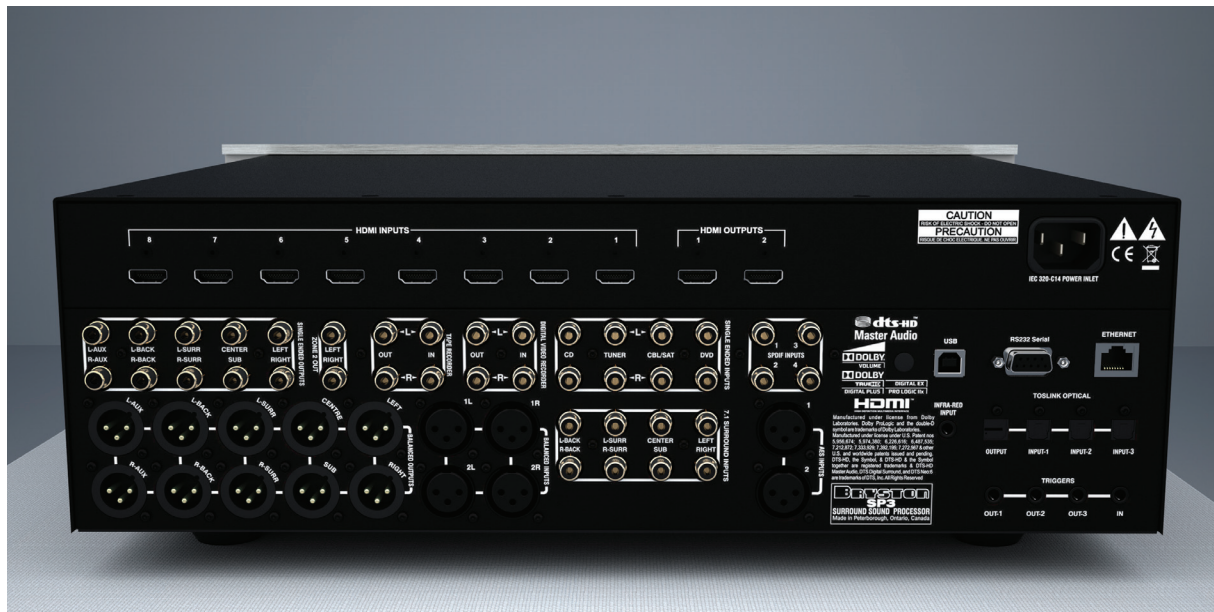
The Bryston SP-3 combines an uncompromised analog preamp, superb DACs, and an excellent digital processor.

Bryston SP-3 multichannel preamplifier-processor

Bryston describes its SP-3 (\$9500) as comprising a true analog preamp plus a full-featured multichannel digital audio processor, and claims that none of those functions compromises any of the others. That statement is a slight modification of the sentence that began my September 2006 review of the SP-3's predecessor, the SP2 (see www.stereophile.com/musicintheround/906mitr/index.html). It is indicative of the enduring philosophy of the manufacturer that, in the more than five years since, Bryston has worked to create a new pre-pro that fully reflects new developments in audio and video

but without compromising analog quality. Audio is extracted from an input HDMI signal for processing while the video signal is routed, unprocessed, to the two HDMI outputs. Digital audio of all formats, including high-definition audio codecs, are supported, and stereo and multichannel analog inputs are handled by discrete class-A circuitry. Completely separate power supplies support the analog and digital functions, and the internal construction is highly modular, to ease future updating of the SP-3 to keep pace with evolving technology.

For all that, the SP-3 looks like a Bryston and works like a Bryston, while providing all the fea-



The SP-3's digital inputs, HDMI excepted, can be assigned to any input button.

tures—with one exception—that users expect from a modern multichannel pre-pro. Even that exception, room correction or equalization, is consistent with the goal of making the output as accurate to the source as possible.

When I unpacked the SP-3, I was surprised by how heavy it was, at 22 lbs for its size—the case measures 17" wide by 5.75" high by 14.25" deep, significantly less than those of other high-end pre-pros I've used, such as the Meridian Reference 861, Classé SSP-800, Krell Evolution 707, and Integra DHC-80.2. In size and weight it's most similar to the Anthem Statement D2v. When I replaced the Meridian 861 and its companion HD-621 HDMI processor with the SP-3, the impression was of a reasonably compact device.

The SP-3's rear panel is nicely organized and clearly labeled. Across the top are eight HDMI inputs and two HDMI outputs. Below these is a tier of RCA jacks: from left to right, a 7.1-channel set of analog outputs, two Aux outputs, Zone 2 stereo output, tape and DVR processor

loops, a 7.1 set of analog inputs, and four S/PDIF inputs. Below these are a set of 7.1 analog XLRs output, two Aux outputs, two pairs of balanced analog inputs, a 7.1 set of analog RCA outputs, and two AES/EBU inputs. On the far right, below the AC input connector, are three more tiers of connectors: at the top, USB,

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RS-232, and Ethernet jacks; in the middle, an IR jack and four TosLink jacks; and on the bottom, four trigger connectors.

The logic of this arrangement is that, although the 7.1 sets of RCA and XLR outputs are simultaneously available, most users will choose one or the other; placing one set above the other makes for uncluttered access to all other

connections. The Aux outputs, both for RCA and XLR, support use of an additional subwoofer and center-channel speaker. The digital inputs, HDMI excepted, can be assigned to any input button. In keeping with Bryston's philosophy of minimizing complexity, each analog input is assigned to a particular input button, as are the HDMI inputs.

The front panel is equally logical in layout and functions. On the left, above the Bryston logo, is a relatively large and clearly readable four-line alphanumeric display (this briefly converts to a large numeric display when the volume control is used) and the Standby/On button. Across the top are the familiar four navigation buttons, as well as a button for Display (selects brightness), two for Surround Mode (how nice to be able to step through the choices in either direction), one for Digital (selects S/PDIF or AES/EBU sources), HDMI (selects source), 2 Ch. Bypass (selects the front L/R from whatever analog source is active), and Stereo (conventional stereo, or a mixdown from a multichan-

nel source). Across the bottom are the input selector buttons. HDMI input assignment is fixed for the first eight inputs, but the identically labeled analog audio input can be selected, or a digital audio input for each can be programmed through the menus. Similarly, the USB and 7.1 Bypass buttons are associated with those jacks. To the right are buttons to select Main or Zone, and a headphone jack. At the extreme right is a large knob for volume control and navigation.

Again, the logic of this is that, after programming one's preferences in the user menus, one needs only the input selector buttons and volume control. On the other hand, one can make on-the-fly selections with the upper row of buttons. So easy and intuitive are the control and display arrangements that the lack of an onscreen display is unimportant. The SP-3 lacks a front-panel mute button, but I found that toggling the Main button serves just as well.

The menus, too, show Spock-like logic. The two main sections are System Setup and Source Setup. System Setup settings apply to all sources and include speaker distance, S/PDIF, and TosLink button assignments, display and utility settings, and the pink-noise test signals. Source Setup settings are made on a per-source basis, and include speaker size and crossover, speaker level, subwoofer use, triggers, dts/Dolby options, HDMI and digital outputs, as well as lip-sync adjustment. Most interesting is Auto Save, which permits the system to save all your manipulations as you do them, and revert to these saved preferences on boot-up. This means that the SP-3 can almost program itself as you use it.

The compact metal remote

control provides all necessary controls, and lights up automatically if picked up. All buttons are identical in size and feel and are fairly symmetrically arranged, but the auto-illumination (and the additional rubber foot I added to the back) made it easy to find and use them.

Part One: The SP-3 in NYC

I inserted the Bryston SP-3 in my Manhattan system, and connected the Sony XA-5400ES SACD/CD player and Oppo BDP-95 universal Blu-ray player to the first two HDMI inputs, the two balanced analog inputs, *and* the Oppo to the multichannel RCA analog inputs. My Pioneer FM tuner went into a stereo analog input, while the Squeezebox Touch music server and the coaxial digital feeds from the disc players were connected to S/PDIF inputs. XLR outputs for the left, center, and right channels went to the McIntosh MC303 three-channel amplifier; XLR outputs for the surround left and right channels went to the McCormack DNA-1 Rev.A amplifier, and an RCA subwoofer output went to a JL Audio Fathom f113 sub. Why RCA? Read on.

I programmed in the measured speaker distances and set the speakers to Small, crossing over to the subwoofer my three B&W 800 Diamond front speakers (at 45Hz) and two B&W 804 surrounds (at 80Hz). I used the Bryston's built-in pink-noise generator to set speaker levels, using XTZ's new Room Analyzer II Pro (see below). I considered running the front three speakers full range, but my room has some low-end problems that add muddiness; as the SP-3 lacks EQ, I thought it best to divert the very low end to the subwoofer, where it could be dealt with by the

Automatic Room Optimization (ARO) system in the Fathom f113 (see this column, November 2006; www.stereophile.com/musicintheround/1106mitr/index.html). However, I prefer using DSPeaker's multiband Anti-Mode 8033 bass equalizer (see this column, January 2009; www.stereophile.com/content/music-round-34-page-2), which has only RCA outputs, not XLR. The success of the 8033's EQ was confirmed by ear and by measurement with the XTZ, which found no residual modal behavior in the passbands of the subwoofer or the main channels.

Through the Bryston's analog stereo inputs the sound was absolutely pristine, powerful, and a breath of fresh air. My regular reference discs provided a spacious and stable soundstage with good depth and balance. The SP-3 sounded full and rich, while imposing no undue warmth on the music. I had expected otherwise—my memory and notes told me that the SP2 had a clean but moderately lean tonal balance—so I was greatly surprised and pleased. Indeed, although I did no direct A/B comparisons between the SP-3 and the Parasound Halo JC 2, which sat below it on the rack, my overall impression was that the SP-3 was as transparent as any analog stereo preamp I have used. The sound via balanced XLR links was slightly but consistently quieter and more open than from the RCAs. I also made use of the JC 2's ability to add a subwoofer bass to the analog-bypass stereo analog signals, and found that set-up utterly identical to the direct bypass, except for the improved clarity in the really low, powerful bass. Clearly, a win-win for the Bryston SP-3.

With digital S/PDIF or TosLink datastreams, there was no

doubt that Bryston had applied their considerable experience in D/A conversion to the SP-3. I've been out of the mainstream of the standalone DAC business for a little while, but Bryston's 24-bit/192kHz DACs drew finer detail from the music, especially in the treble, than I got from the analog outs of either the Sony or the Oppo player. This was true even when I compared the Oppo's 24/88.2 PCM output from SACDs with the analog output of the Oppo's vaunted 32-bit ESS Sabre DACs directly converting the DSD signal.

Switching to multichannel, as fed from the analog outputs of the Oppo BDP-95, meant using the Oppo's crossover and distance settings, although the external EQ of the subwoofer was retained. I found this sound utterly amazing. It retained all those characteristics that had so impressed me with two-channel

signals, now enhanced and expanded into the three dimensions of surround sound. This was the first time in a very long time that I had enjoyed convincing multichannel high-resolution sound without a digital processor. Chalk it up to the excellent analog signals provided by the Oppo, but also, in no small measure, to the Bryston SP-3's utterly transparent sound.

Indeed, moving on to the more standard digital connection between the player and the SP-3, there was still something to be gained, but nothing was lost. The integration of the subwoofer's output was improved by the Bryston's use of second-order high-pass and fourth-order low-pass filters at 45Hz. (The Oppo's only relevant options were at 40 or 60Hz.) This contributed to the overall illusion—even powerful low bass had unequivocally specific imaging at all levels.

And all this in only my first two weeks with the Bryston SP-3! At this point, my preliminary verdict is clear: The SP-3 is an uncompromisedly superb analog preamp that also includes Bryston's excellent 24/192 DACs. In that sense, it can be regarded as Bryston's ultimate stereo component. I need and want to spend more time listening to the SP-3's multichannel performance via HDMI in my Manhattan system, as well as in my Connecticut system, where the supporting cast is so different. Those results, in detail, will appear in my next column. I have very high expectations.

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PART 2

Bryston's SP-3 pre/pro are given a workout

In my review of Bryston Ltd.'s SP-3 preamplifier-processor (\$9500) in my May 2012 column, I found that it sounded outstandingly open and dynamic when used as an analog stereo or multichannel preamp. This was evident regardless of the rest of the system, which began

with a McIntosh Labs MC303 three-channel power amplifier driving B&W 800 Diamond speakers, but eventually included Bel Canto REF1000M and Anthem Statement M-1 amps, as well as Adam Audio's Classic Column Mk.3 speakers. Didn't matter. The Bryston's transparency allowed each component

to perform as well as I'd ever heard it. After that, I disconnected the SP-3 from my Manhattan system, tossed it (figuratively!) in the car, and took it out for a weekend in the country.

Hooking up the SP-3 to my Connecticut system was easy, and I transferred to it the settings for speaker

distance, delay, and crossover I've long used there. Because the SP-3's country visit would be brief, I connected only one subwoofer, a Paradigm Sub-15, which, using its Perfect Bass Kit, I'd already equalized for its location in the room.¹ The only critical adjustment needed was to balance the output levels of the sub and main speakers, handily accomplished with the dandy sound-pressure-level and RTA functions of an XTZ II Pro analyzer. The total time I spent on the SP-3's installation and setup was well under an hour, aided by the use of HDMI connections for all inputs.

Not only are my Connecticut and Manhattan rooms and setups quite different, but for some years now I've been using Audyssey and other EQ softwares in my New England system. In fact, I haven't lived with an unprocessed signal there, except when making A/B comparisons to assess the effectiveness of an EQ. Since my vote has almost always been strongly in favor of the EQ'd sound, the Bryston faced the daunting challenge of my own expectations.

My main reason for taking the Bryston on this trip was to feed it a rich diet of high-resolution, music-only recordings on Blu-ray and SACD, but I soon learned that it had some dietary restrictions. In New York, via HDMI, I was able to feed the SP-3 only up to a 24-bit/88.2kHz PCM signal from my Sony SCD-XA5400ES SACD/CD player. That's the same sample rate I'd gotten, and was happy to use, with either the Meridian 621/861 combination or the Classé SSP-800—but the Bryston is *supposed* to accept signals of up to 192kHz, including full 24/176.4 from transcoded SACDs. None of the three preamp/processors will directly accept DSD datastreams.

While the Sony's HDMI output is determined entirely by HDMI handshaking, the Yamaha BD-A1000 Blu-ray player does let the user choose between PCM and DSD output, and it can output 176.4 LPCM. Still, all I got was 88.2 PCM. I then tried a few of the Blu-ray Audio discs from Norwegian label 2L, which offer a selection of hi-rez formats, and found that the SP-3 did a first-rate job of decoding and playing bitstreamed dts-MA and DolbyHD tracks of up to 5.1 channels and 24/192kHz resolution. Ah, but when I told the Yamaha or the Oppo BDP-83SE universal Blu-ray player to convert those same tracks to PCM, the Bryston's input, according to its own display, was limited to 96kHz.

I exchanged e-mails with Bryston about this, and even installed new firmware in the SP-3, an easy task that requires a PC and an Ethernet link. Still, I was never able to get more than a 96kHz signal from either disc player via HDMI. Bryston tells me that this is unexpected and will be resolved. By contrast, I was able to play 24/192 stereo files through the Oppo via the Bryston's S/PDIF input.

Despite all this, the bottom line was that my Connecticut rig had never sounded better than when the Bryston was running things. Even with noncritical sources such as cable TV or Internet radio, the difference the SP-3 made in the sound of this relatively modest system was immediately audible. There was an overall ease and smoothness in the midrange that, by contrast, made the Integra DHC-80.2 and Rotel RSP-1572 pre-pros I'd previously used sound somewhat pinched. The effect seemed analogous to comparing signals



A nice perspective on the Bryston SP-3, in silver with black printing. The review sample came in black with white printing.

with an irregular midrange frequency response to those with a flat response, even though those other pre-pros undoubtedly *measure* flat as a ruler. A corollary of this was better imaging; I found myself less aware of the speaker cabinets being the sources of the sound.

Most striking and addictive was that the SP-3 opened up the lower midrange and upper bass of my Paradigm Studio 60/v3 speakers: lower strings and male voices revealed felicitous details, and a richness that I hadn't believed they were capable of. This was apparent whether I used the Paradigms as full-range two-channel speakers, or with the Sub-15 for stereo or multichannel recordings.

Had the SP-3's magic comparably transformed the Paradigms' treble, I might never have considered updating them—but the Bryston was only too willing to expose the inherent glint of the Studio 60s' metal tweeters, which is usually tamed by the soft rolloff of Audyssey EQ. One result of this was to decrease my tolerance for some of the SACDs from the LSO Live and Mariinsky labels, which before had seemed to have central imaging that was only slightly unstable. My ears and brain now found it impossible to integrate the somewhat disembodied sound of Denis Matsuev's piano with that of Valery Gergiev's St. Petersburg Mariinsky Theater Orchestra, in their recording of Rachmaninoff's *Rhapsody on a Theme of Paganini* (SACD/CD, Mariinsky MAR0505). Conversely, and despite the outsized piano image, I had no trouble conjuring the event with Lang Lang performing the same work, also with Gergiev and the Mariinsky (SACD/CD, Deutsche Grammophon 477 549-9).

Overall, though, I was astonished by the SP-3's ability to transform and upgrade the sound of my system without the assistance of any EQ (except for the subwoofer). I listened to Mahler's Symphony 6, with Claudio Abbado and the Lucerne Festival Orchestra (BD, Euroarts 2055644); Wagner's *Die Walküre*, with Zubin Mehta and the Valencia Community Orchestra (BD, C Major 700804); Mozart's *Requiem* (SACD/CD, Linn CKD 211) and Symphonies 38–41 (SACD/CD, Linn CKD 308), both with Sir Charles Mackerras and the Scottish Chamber Orchestra; Sara K.'s *Hell or High Water* (SACD/CD, Stockfisch SFR 357.4039.2); and the three-channel edition of the Oscar Peterson Trio's *We Get Requests* (SACD/CD, Verve/Analogue Productions CVRI 8606 SA). In every case, the sound had levels of detail, presence, spaciousness, and a natural, relaxed quality, that one would expect from a much better setup in a much better room.

All that made me a bit reluctant to schlep the Bryston back to Manhattan, but I had to have it with me in my main

¹ There was an error in my May column, on p.59. When I said that I "made use of the JC 2's ability to add a subwoofer bass to the analog-bypass stereo analog signals," I should have said that it was the Bryston SP-3 that has this important facility.

system. Here, too, the multichannel sound was excellent via HDMI. I spent more time with the same set of recordings, and while the bigger B&W 800 Diamond speakers were, as expected, more authoritative in the low end and more smoothly balanced at the top, the Bryston's influence was as apparent here as it had been in Connecticut. Listen to the bass drum in Ole Kristian Ruud and the Norwegian Radio Orchestra's recording of Ole Borneman Bull's *La Verbena de San Juan* (BD-A/SACD/CD, 2L 2L-067-SABD). It had always been powerful and deep, but now, as the upper bass was stripped of masking boom, it had tauter definition and, properly, a less defined pitch. Similarly, the rich male voices whose "oohm-ma" and repetitions of the refrain of "No Sanctuary Here," from the late Chris Jones's *Roadhouses & Automobiles*, make this song such a

popular audiophile demo (CD, Stockfisch SFR 35760272), were now discrete and close at hand but no less imposing.

I think the Bryston SP-3's analog performance is the secret sauce of this wonderful pre-pro—its qualities shone through regardless of whether I used digital or analog sources, and whether or not they were processed. (What else, besides the analog outputs, is common to all the SP-3's functions?) In addition, by including absolutely no video processing save for stripping the audio signal from the HDMI input, the Bryston SP-3 avoids having the added noise from those higher-frequency processes bouncing around inside the chassis. As a byproduct of not having any video processing, the Bryston's HDMI input switching was swift and silent when I changed discs, tracks, or channels.

Altogether, I think the Bryston SP-3 is the first great audiophile preamplifier-processor. Sure, it will also work superbly for home-theater fans, but its combination of features, controls, and purity of sound make the SP-3 especially appealing to those who love to listen to music, regardless of the number of channels, and whether or not accompanied by images.

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