

Your Sound, Your Way

The Rotel RSP-976 surround processor is so simple, even an audiophile can use it.

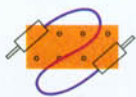
by Steve Guttenberg

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- Rotel RSP-976 Surround Processor
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- PMC FB1 Speaker System
- Princeton Graphics HDT2000 and Samsung SIR-T150 Terrestrial HDTV Tuners
- Cambridge SoundWorks Newton Theater MC300 Speaker System
- Philips DSR6000 DirecTV Receiver/TiVo PVR

I messed up. I sold my stereo tube preamp, a Cary SLP-98L, *before* I had its replacement, an Ayre Audio K-3x, in place. The prospect of going without tunes for a couple of weeks put me in a funk—until I remembered that I had a Rotel RSP-976 surround processor buried in my To Be Reviewed pile. So, my introduction to this processor was with my two-channel system: JMLab Mini Utopia speakers, a Wadia 860 CD player, and a Musical Fidelity A3^{CR} amplifier. Sure, most of today's home theater electronics can deliver more-than-passable sonics, but only the best ones have soul. That's what separates the run-of-the-mill components from the great ones. Well, right from the get-go, the RSP-976 boogied. I happily dawdled with the Rotel in 2.0 mode for a couple of weeks before I gave it a chance to demonstrate its considerable home theater moxie.





Rotel RSP-976 Surround Processor

I shouldn't have been surprised. After all, Rotel is a 40-year-old audio company that first earned a reputation with budget-conscious audiophiles. The company has a utilitarian design ethic and forgoes the use of frivolous features and slick cosmetics in favor of engineering solutions that provide improved sonics. Clearly, they've made the transition from pure

a pair of stereo inputs, and one tape loop. While the RSP-985 gets by sans component-video-switching facilities, the RSP-976 offers two sets of component video inputs and one set of outputs. The RSP-976's digital-connectivity quotient is fairly generous: three coax and two Toslink digital inputs and a pair of outputs, one coax and one Toslink. Of course, the 5.1 analog inputs bypass the analog-to-digital and digital-to-analog converters. Rotel

of the front panel's controls are duplicated on the backlit Rotel RR-969 universal learning remote, which can also operate up to nine other components. I'm normally a remote-challenged guy, and I had this thing punched-up within a few minutes, so you can, too. The remote's layout is only so-so, but I found the processor's ergonomics to be very intuitive for everyday use. Pretty much everything worked as I expected it to; you could (almost) get by without consulting the manual.

The RSP-976 can accommodate all but the most complex home theaters. It has dual 12-volt trigger outputs and an RS-232 interface that opens the door to a number of control choices, including touch-screen operation. A fully independent second-zone output (in stereo) permits second-source operation in another room.



A. The RSP-976's utilitarian design is classic Rotel.

B. The back panel has enough connections to handle most home theater setups, including two sets of component video inputs, but there is no phono input.

audio to the more-competitive home theater arena with beguiling ease. Rotel is based in Tokyo, but they did most of the research and design work for the RSP-976 in the United States.

Superficially, the RSP-976 is the near-identical twin of the upmarket RSP-985 pre/pro (July 2000). The new model doesn't attempt to compete with the RSP-985's first-class sonics, and it lacks its big brother's THX certification; but hey, it's also \$800 cheaper. The RSP-976's jack-packed rear panel can accommodate five A/V sources with composite or S-video connections,

opted for AKM AK4325 24-bit/96-kilohertz converters, and Crystal chipsets handle the Dolby Digital and DTS

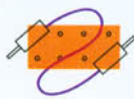
decoding, plus the DSP and bass-management duties.

The RSP-976's cleanly executed faceplate wouldn't be out of place on a minimalist stereo preamp. Let's see, it's got a velvety-smooth volume control, rotary bass and treble controls, and a smattering of source-selection buttons (CD, tuner, video 1, etc.). Another row of buttons handles mode variations (two-channel, three-channel stereo, Pro Logic, DSP, 5.1, dynamic range, zone, and recording functions). Source selection is plenty legible, thanks to the main display's cool blue LED, but the 5.1 and DSP fonts are too damned small to be read from across the room. Most

HIGHLIGHTS

- Clean, uncluttered appearance
- Clean, sophisticated sound
- Clean, well-thought-out ergonomics

Rotel crammed a ton of cool features into this processor, but they left out some important doodads. Sorry, Charlie, but the EX and ES formats didn't make the cut. Rotel also omitted rudimentary items like a balance control, a headphone jack, and a phono input. Oh well; if you're phonographically inclined, you can add a separate phono preamp, but be aware that the RSP-976 digitizes the phono along with the other analog inputs. Digitized analog—that strikes me as more than a little perverse.



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I was curious about the effects of this digitization, so I compared the sound of a digitized CD input with that of the 5.1 inputs. Yessiree, the all-analog, all-the-time 5.1 connections clearly sounded better. When I routed my Wadia CD player through the digitized inputs, it sounded noticeably grainier, it lost bass definition, and its top-end detail fell off. Switching back to the 5.1 inputs restored its transparency. So, even if you haven't moved up to a DVD-Audio or SACD player, try running the stereo analog output of your high-end CD player, DVD player, or phono preamp through the RSP-976's 5.1 inputs. These analog-to-digital/digital-to-analog conversion losses aren't subtle, and the RSP-976 isn't the only processor set up this way. Just remember, the 5.1 inputs circumvent bass-management functionality. That won't be a problem if you use large settings (i.e., full-range left/right speakers), but the

direct input won't sound so hot if you use small sats.

I partnered the RSP-976 with two different amps: my B&K AV6125 and a Rotel RB-976 Mk II. I preferred the 125-watt-per-channel B&K, maybe just because it was more than twice as powerful and I do like to play my DVDs as loudly as I can get away with. The Rotel amp was no slouch, either; it mirrored the RSP-976's seductive sound. My old reliable NHT speaker ensemble (SuperTwos up front, a SuperCenter, and SuperOnes in the rear) never sounded better. Oh, and my REL Storm III subwoofer explored the depths with unusual dexterity.

The RSP-976 produces vivid sound, so it let even the most subtle musical nuances shine through. The strings on the *I Am Shelby Lynne* CD sounded like the real thing—stringed instruments, not swishy synth pads wafting around under the real instruments. And Lynne's sexy, soulful voice got me goin' in ways I can't discuss in a family magazine. Radiohead's *Kid A* CD tossed out an immense holographic soundstage, as well as tantalizingly taut and deep bass. As I expected, none of the four DSP ambience modes did much for me; I prefer my stereo sound au naturel, thank you very much.

Finally, moving on to the home theater portion of the audition, I found the speaker-setup chores to be refreshingly straightforward, the onscreen menus easy to navigate

and use, and the subwoofer-setup options individually tweakable for Dolby Digital, DTS, and music sources. For example, you can preset a bass boost for your flicks and leave it flat for music. I just wish Rotel had offered a range of sub/sat crossover frequencies, but

the RSP-976's crossover is fixed at 80 hertz.

I never experienced any muting or weird sounds when I accessed DVD special features, jumped back and forth between Dolby Digital and DTS, and skipped tracks or chapters; however, the RSP-976 occasionally lopped off the first fraction of a second of sound on DVDs and CDs. Yes, you can always back up and start over again, but why should you have to?

What Lies Beneath, a blatant Hitchcock-wannabe thriller, didn't totally win me over, but I'm a sucker for

scary movies. This DVD is loaded with creepy bathroom scenes à la *Psycho*, but Michelle Pfeiffer falling on her face after yanking down the shower curtain wasn't nearly as satisfying as Janet Leigh's legendary turn. The RSP-976 rendered the difficult-to-reproduce running-and-splashing-water sounds with aplomb. High-frequency extension was effortless and delicate. Even at high levels, I never experienced listening fatigue. Alan Silvestri's string-driven score shrieked and swooned all right, but his attempts to keep the tension high weren't altogether successful. He too often

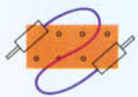
C. Rotel's RR-969 learning remote is easy to program, but its layout isn't terribly intuitive.



HT Labs Measures: Rotel RSP-976 Surround Processor

The above chart shows the frequency response of the left (purple), center (green), LFE (red), and left-surround (blue) channels at the preamp outputs of the Dolby Digital decoder. The left, center, and surround channels are all flat, +0.31/-0.29 decibels from 20 hertz to 20 kilohertz. The LFE channel, normalized to the level at 40 Hz, is +0.01 dB at 20 Hz, reaches the upper -3dB point at 110 Hz, and reaches the upper -6dB point at 117 Hz.

The analog frequency response of the left channel is +0.22 dB at 20 Hz and -0.50 dB at 20 kHz. The response dropped to -0.16 dB at 10 Hz and to -49.70 dB at 50 kHz. The analog THD+N is less than 0.053% at 1 kHz with a 100-millivolt input and the volume control set to 74, which produces an output level of 104.2 mV. Crosstalk with a 100-mV input was -75.49 dB left to right and -79.18 dB right to left. The signal-to-noise ratio with a 100-mV input from 10 Hz to 24 kHz with "A" weighting was -83.60 dBra.—AJ



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crossed the line and merely parodied the master of the form, Bernard Herrmann.


Call me weird, but I'm no fan of everybody's favorite LFE workout disc, *Saving Private Ryan*. I much prefer Terrence Malick's surreal war epic *The Thin Red Line*. The RSP-976 dredged up gobs of new details and textures from *TTRL*'s dense soundtrack. The sound was wonderfully open, and my REL subwoofer packed quite a wallop. OK, maybe the artillery blasts' dynamic contrasts weren't as powerful as I've heard them, but they still rattled my eardrums. The *Bram Stoker's Dracula* DVD's wraparound soundstage of unsettling effects sounded especially coherent. The RSP-976 displayed the sort of exquisite layering and

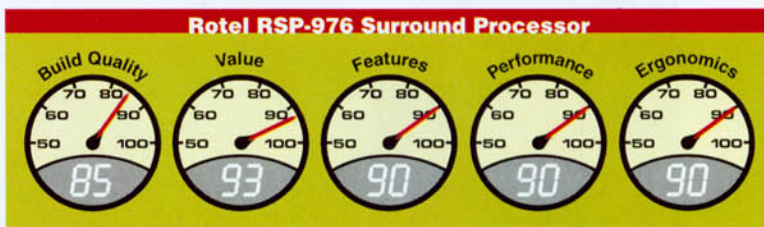
tactile qualities that make the experience real.

Where does the \$1,199 RSP-976 fit in the scheme of things? Add Rotel's \$700 six-channel 60-watt amp, the RB-976 Mk II, and you've got something that sounds a lot better than most \$2,000 receivers. Let's face it: Cramming the beefy power supply of a multichannel amp and all of the guts of a processor into a receiver-sized package is impossible—design compromises are inevitable. You could splurge a

little more and team the RSP-976 with a heavyweight amp: maybe Rotel's 200-watt five-channel amp, the RMB-1095, or maybe a badass

RSP-976 Surround Processor	\$1,199
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B&K or Parasound. That's exactly the point of going the separates route. You'll wind up with not just better sound, but *your* sound. You can have it your way. 



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