

# Dynamic Duo



The **Rotel RSP-985** pre/pro and **RB-985MkII** power amplifier are a big step up from the receiver lifestyle.

by Michael Trei

I HAVE OFTEN SUGGESTED that a receiver is usually the best option for most people trying to set up a home theater for the first time. If your budget is limited, a receiver will usually give you better performance than separates because the manufacturer can use the money saved by building the electronics into one box to supply better parts. Another big advantage of a receiver is simplicity. By eliminating a bunch of the cables that normally sit behind a system of separates, you considerably reduce the chance of connecting something incorrectly. Ultimately, though, the performance potential of separates is higher than that of a receiver.

Rotel seems to have considered this dilemma and has decided that we can have our cake and eat it, too. By providing an umbilical cable to send all five channels between the two pieces, they have considerably reduced the confusion of installing a separates system. Each of the power amp's speaker binding posts is clearly marked

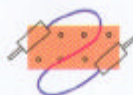


according to which processor channel it receives via the umbilical cable, making hookup a snap and greatly reducing the chances of screwing something up.

It still costs more to make two pieces of equipment instead of one. However, for decades, good value has been a key goal for Rotel. About 20 years ago, they decided

## Inside Gear Guide:

- Rotel RSP-985 Pre/Pro and RB-985MkII Power Amp
- Definitive Technology SPVX/P Surround Speaker



## Rotel RSP-985 Pre/Pro and RB-985MkII Power Amp

to make a definite break from the "more bells and whistles" school of design that had dominated Japanese audio-equipment design in the '70s. They found that, by



- A.** At \$2,000, the RSP-985 is one of the least expensive THX-certified pre/pros.
- B.** Rotel has taken the unusual but cool approach of making the RB-985's front panel the heatsink.
- C.** If DVD-Audio or SACD ever take off, the RSP-985 is prepared, with a 5.1-channel input.
- D.** A DB25 multipin input connector links the RB-985 to the RSP-985.

sticking in all of those unnecessary gizmos, they were adding too much to the cost of the equipment. Starting with the semilegendary RA-820 integrated amplifier, they took a simpler approach, leaving off the unnecessary doodads. They made equipment with only the features that were really necessary for getting great sound.

### RSP-985 Preamp/Processor

At \$2,000, this is one of the least expensive THX-certified preamp/processors on the market. With Dolby Digital, Dolby Pro Logic,

DTS, and dual-zone capability, it's hard to see how they could have included more at this price.

Handling six audio/video inputs (all with S-video), an audio-only tape loop, and five digital inputs (four coaxial and one optical), the RSP-985 can work as the centerpiece for all but the most complex home theater systems. Nice touches include a 5.1-channel input, which is useful if DVD-Audio or SACD multichannel ever take off, and three A/V record outputs with S-video.

In order to keep things simple without unnecessary frills, the RSP-985's front panel features a large, centrally mounted volume control, with three rows of buttons that allow you to perform basic functions like selecting the input and changing the surround mode. Most of the more-elaborate features are relegated to the remote, a variation of the popular Home Theater Master.

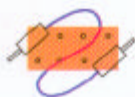
Although it's reliable and versatile, I do wish Rotel could've come up with a layout that was a bit easier to understand. Operating the menu system is frustrating until you get used to it. The enter and back buttons are buried at the bottom of the numeric keypad, and the buttons to move the onscreen cursor are labeled backwards. Luckily, the most confusing functions are only needed during setup. Once everything's programmed, the remote works well enough for normal use.

After you've poked around enough to figure out the remote, you'll find that this is really a very flexible processor. There's an

extensive onscreen menu system, with the first menu showing most of the current settings superimposed over the picture from the selected source. When you decide to get serious and move from there into the main setup menu, it changes to a solid background for easier viewing. This menu allows you to select from several submenus, in which you can adjust the digital audio status, individual input setup, subwoofer characteristics, and speaker type, balance, and delay. Bass management is fairly flexible and does allow you to send a signal to the subwoofer from two-channel sources, even if the front channels are set to large. You can also change the LFE signal level for each mode from the standard THX settings, if you wish.

Second-zone connection is fairly simple and is controlled via an infrared port on the back panel. This zone is completely independent from the main zone and can be switched on or off regardless of the status of the main zone. Curiously, the tape-monitor input can't be routed to the second zone.

As is often the case, there are several music modes, with names like party, club, hall, and natural, in addition to Dolby and DTS. I guess I'm a dweeby audio purist, but I tend to prefer listening to two-channel music as originally intended—with two speakers. Other audio dweebs should note that the processing is digital all the way. If you connect the analog output of your big-ticket CD player, digital-to-analog converter, or even an analog source, the RSP-985



# Rotel RSP-985 Pre/Pro and RB-985MkII Power Amp

will convert that signal to digital for processing and then back to analog before the output, regardless of the setting. There's no analog-bypass mode.

All of these connectivity and setup issues are of little consequence if the result is something other than great sound. Luckily, this isn't a problem. I used the RSP-985 frequently over the course of several months, with many different amplifiers and speakers, and I never felt that it was letting down the team. The sound was consistently enjoyable and smooth, and the unit performed flawlessly. Big, slammin' Hollywood stuff like *Clear*

*and Present Danger* and *The Hunt for Red October* always sounded clear and smooth, and the THX enhancements were just that—enhancements that open up the sound in a way that's difficult to achieve with unenhanced Dolby Digital.

I did compare the Rotel with the ADA Cinema Rhapsody, which is a bit unfair when you consider

that you could buy two Rotels for the price of the ADA. Sure enough, the Rhapsody did sound a bit more dynamic, with more-vivid tonal contrasts, but the Rotel certainly wasn't embarrassed by it. Unless you did a side-by-side

comparison, you'd probably never be left feeling deprived. Pro Logic decoding from two-channel laserdisc sources was

also good, with the THX Adaptive Decorrelation circuits adding a spaciousness not normally heard from the mono surround channel.

The RSP-985 has very little competition in its price range, as almost every other THX processor available is considerably more than Rotel's \$1,999 asking price.

At one time, I was a bit ambivalent about the real benefits of THX circuitry; however, with a good processor like this one, those benefits are impossible to ignore. Rotel's tradition of offering great sound for the buck continues, and it's hard to see how you could do better at this price.

## Rotel RB-985MkII Power Amp

Conforming to the original THX specification, the RB-985MkII is pretty much your basic five-channel home theater amp, with 110 watts per channel (10 wpc more than the original version). Rather than building just a basic black box, Rotel has taken the unusual approach of making the front panel the heatsink. Apart from looking cool, this really makes a lot of sense because, when a component is put in a cabinet, the front panel is the only surface left out in the open with free air circulation.

To match it with the RSP-985 processor, the amp's back panel has a DB25 multipin input connector, as well as the usual RCA

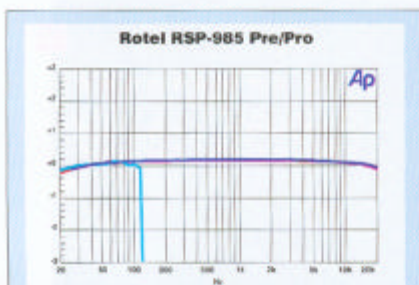
jacks. Speaker outputs are via good-quality, color-coded binding posts. The only omission is the lack of any provision to turn on the amp by a remote control or low-voltage trigger. That's right, you actually have to get up out of your easy chair to push the power button on the front panel.

One particularly neat (and fairly obvious) solution would have been to include a turn-on signal with the multipin cable—there are 25 connectors, after all. But alas, it's not to be. Then again, you could just connect the power cord to the switched outlet of any decent power line conditioner.

Naturally, I used this amp with the RSP-985 processor, but I also tried it with other more-exotic processors like the ADA to get a better feel for

how it performs independently. The MkII really seems to belie its power rating, sounding more powerful than some of the higher-rated amps I've used recently. Even when driving my jumbo-sized Snell Type A speakers without filtering the bass, I never felt any real sense that the amp was reaching its limit. I tossed in several DVDs that other amps have had a hard time with (like the Martian-landing scene in *Mars Attacks!*), and the Rotel always pumped it

**E. The RSP-985's remote, a version of the popular Home Theater Master, is a little difficult to use.**



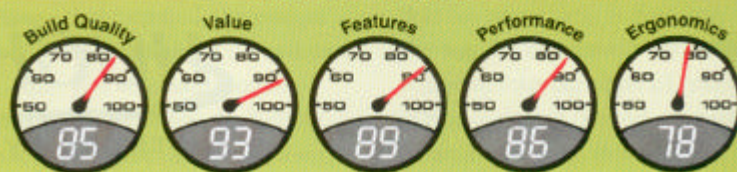
### HT Labs Measures: Rotel RSP-985 Pre/Pro

The above chart shows the frequency response of the left (yellow), center (magenta), LFE (low-frequency-effects or subwoofer—red) and left surround (blue) channels at the preamp outputs of the Dolby Digital decoder. The left, center, and surround channels are all flat,  $\pm 0.24$  decibels from 20 hertz to 20 kilohertz. The LFE channel, normalized to 40 Hz, is  $-0.16$  dB at 20 Hz and reaches the upper  $-3$ dB point at 120 Hz. The analog frequency response of the left channel is  $-0.40$  dB at 20 Hz and  $-0.37$  dB at 20 kHz. The response drops to  $-1.9$  dB at 10 Hz and  $-39.9$  dB at 50 kHz. The analog THD+N was less than 0.008% at 1 kHz—MW

## HIGHLIGHTS

- THX at a very reasonable price
- Smooth, confident sound
- Needs a better remote layout

### Rotel RSP-985 Pre/Pro





## Rotel RSP-985 Pre/Pro and RB-985MkII Power Amp

out and behaved as it should, without distress.

Just as a well-set-up video projector will give you a vivid color palette with a greater range and depth of hues, good-sounding equipment will have a wide range of sonic timbres, adding life and vividness to the sound. The MkII excels in this area, and the character of individual sounds—from the clink of a wine glass in *GoldenEye* to the swish of the helicopter blades in *Contact*—made watching the movies engaging and interesting.

Listening to the subtler and more-musical side of things also proved to be rewarding, and the nuances I heard in Lyle Lovett's

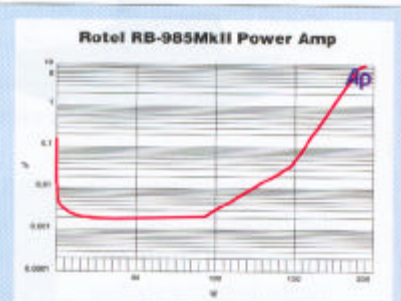
### HIGHLIGHTS

- Great-sounding amp with good power
- Multipin input for easy and neat connections
- Lacks a low-voltage trigger input

singing on "Baltimore" from *Joshua Judges Ruth* would put to shame many two-channel high-end amps designed solely for music. With denser, more-complex recordings like the album *Steve McQueen* by Prefab Sprout, the Rotel was able to delineate the individual elements of the mix in a clear and coherent manner that made the music easier to understand. Dialogue clarity was also impressive, even when all of the other channels were going

full-tilt, like in the opening of *Saving Private Ryan*.

The RB-985MkII is one of those products that, somehow, always



HT Labs Measures: Rotel RB-985MkII Amp

The above measurement shows that the RB-985MkII's left amplifier channel, with two channels driving 8-ohm loads, began clipping at 0.038% distortion and 148.2 watts. The amp reaches 0.1% distortion at 156.2 watts and 1% distortion at 174.3 watts, as shown above. Into 4 ohms, the amp begins clipping at 180.5 watts and reaches 0.1% distortion at 220.7 watts and 1% distortion at 256.6 watts.

With all channels driven into 8-ohm loads, the left channel began clipping at 92.6 watts. The amp reaches 0.1% distortion at 120.2 watts and 1% distortion at 138.2 watts.

The amplifier's frequency response was  $\pm 0.13$  dB from 20 Hz to 20 kHz. The response dropped to  $-0.36$  dB at 10 Hz and to  $-0.71$  dB at 50 kHz. THD+N from the amplifier was less than 0.0051% at 1 kHz.—MW

manages to sound right—even if others are able to offer improved performance in specific areas. No, the amp's not perfect, and it's not likely to give companies like Krell or Conrad-Johnson any

RSP-985 Pre/Pro	\$1,999
RB-985MkII Power Amp	\$999

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sleepless nights. However, for \$1,000, this amp should give the makers of big-ticket receivers plenty to contemplate. ⚡

