

Rotel Power Amplifier Model RB1090

Source: Equity International

Price: \$2,999.00 Cdn & \$1,999.00 US

Rating: ♪♪♪



Appearance:

This amplifier looks like so many other black-chassied designs, but differs in the way one can handle this rather large and heavy object. It weighs a hefty 85 pounds, stands 9.5 inches high, 15.75 inches deep and 17.35 inches wide. To make things easier when placing the amp, Rotel provided small casters on the bottom rear of the unit. Legs allow positioning the unit on its rear to allow better handling. Balanced and unbalanced inputs and a dual set of five-way speaker binding posts on the rear of the unit make bi-wiring a breeze. A switch allows selecting the RCA or XLR inputs. The front panel accommodates the on/off switch and a couple of indicator lights along with the logo. This is a massive component and, though not much different from other power amplifiers in appearance, manages the look of understated elegance.

Technology:

The RB1090 is practically two totally separate power amplifiers which share a single chassis and a (detachable) power cord. It's based on what the company calls the "Balanced Design Philosophy" which describes their careful attention to the essential parts combined with diligent listening to evaluate every consequential component.

The design incorporates two totally independent power supplies which are based on a large (>125 kVA) custom made, multiple-secondary toroidal transformer.

It has been years since we looked at a Rotel product. The last time we reviewed a Rotel power amp and preamp was back in 1991. However, since *TIER's* humble beginning, back in 1986, we have reviewed many of the company's components—and they always impressed us with build and sound quality at a price that doesn't warrant mortgaging the home. Rotel's strength is designing electronics and building them as cost efficiently as possible without deteriorating quality. Here is a little company history: in business for about thirty years, Rotel's design team operates out of the UK. Parts are chosen from manufacturers in Japan, Germany, the US and the UK. Manufacturing takes place in at least three countries, chosen for their manufacturing expertise, available manpower and strategic locations. Now to the unit under review.

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Four 18,000 µf British-made BHC Slit Foil storage capacitors are used. Each power supply's reserve capacity allows unlimited output of the corresponding channel thus preventing "sagging" power supply rails. Each output stage consists of four pairs of high current transistors, rated at 200 watts and 1.7 amps current capability. This results in an enormous output and enables the RB1090 to meet even the worst speaker-induced torture tests. The amplifier will deliver 380 watts/channel into 8 ohms, 700 watts/channel into 4 ohm loads and is stable down to 2 ohms where it delivers peak power in excess of 1,000 watts per channel. This exceptionally low impedance stability allows the RB1090 to drive two pairs of 4 ohm speakers simultaneously. An "over current" protection circuit safeguards the amp, should dangerous operating conditions occur. Special current absorbers minimize turn-on surges to prevent circuit breakers from being tripped.

The RB1090's frequency response is from 10Hz to 100kHz; total harmonic distortion is <0.03% (20Hz to 20kHz); signal to noise ratio is 125dB; damping factor is 1000 (20Hz to 20kHz); input sensitivity is 33k ohms.

The Sound:

We used the JMLab Mezzo Utopia and the Ambience loudspeakers (reviewed in this issue) for our listening tests. Nordost SPM speaker cables and Quattro Fil interconnects was used for all wiring. The Wyetech Lab Opal and the McIntosh C100 preamplifiers, as well as the in-house Elite transport/Audio Alchemy DAC/DTI Pro made up the balance of the system(s). Thus, our panelists were intimately familiar with all but the Rotel component.

Our listeners' overall impressions were that the amplifier sounds extremely smooth across its frequency range, almost delivering what is often referred to as "tube-like" information. This amp never sounds hard or clinical—as in sterile. Rather, it sounds rich, full-bodied and melodious. With the Ambience loudspeakers—a ribbon design—the high frequencies, upper and lower midrange information literally sparkled, resulting in

very illustrative voices, instrumental detail and conspicuous time/space coherency. Bass was in line with the loudspeakers' capability and, though lush and textured, didn't quite manage deep pedal-note resolution (below about 35Hz). The RB1090 accomplishes imaging in line with some of the industry's leading, mostly expensive, designs. Each note has its very own space on a soundstage, four feet off the floor with appropriate (and accurate) dimensions, focus and front to back reach.

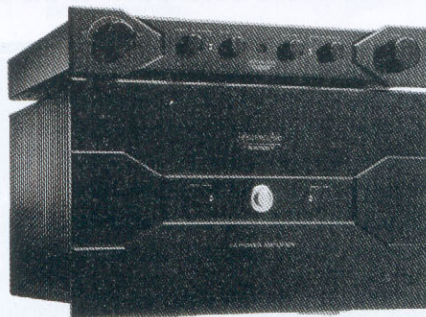
As expected, the Mezzos in this system disclosed more of the amplifier's personality and allowed us to more precisely pinpoint its sonic temperament. At listening sessions with the Mezzos connected, we noticed that the high frequency culmination was exemplary, without a hint of hardness—very close to a good single-ended vacuum tube design. The mid-range, however, though smooth and blos-

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soming quite luminously, now exhibited a slightly tenebrous attribute, not unpleasant to the ear, but not entirely appropriate either. Upper bass and lower midrange was similarly affected, but managed to convey the essence of musical program material nonetheless. Deep bass—the Mezzos' forté—came across powerfully, but didn't mangle the pinnacle of resolution. The Rotel's forté, however, was clearly audible and is its capacity to deliver a most astounding sound-stage. As described above, the amp takes the music up off the floor, sets up the musicians as a conductor sets up his orchestra and allows plenty of space for each instrument/musician. Listening to large orchestral works with the RB1090 is like listening to a live event. Front-to-back reach is deeper than most amps manage and allows listeners to count the rows of performers. Left-to-right dimensions allow identification of realistically depicted boundaries. It's almost like listening to music floating in the air. All in all, the amplifier is a noteworthy component which performs well under the most critical listening conditions. The unit combines the sonic refinement of a low-powered upscale amplifier with the power to drive a wide range of even finicky loudspeakers.

Synopsis & Commentary:

The above description of the unit's per-

formance under controlled conditions doesn't take the many system variables into account. We feel that some loudspeakers one might use with the Rotel will sound more revealing than others. You may have noticed that the Ambience speakers (ribbon designs) actually sounded more linear, offering a better tonal equilibrium across the audible frequency range. These speakers have a tendency to sound very revealing in the midrange areas—or one could say they sound a bit more forward, thereby offering a fine complement to the Rotel's full-bodied quality. As many loudspeakers feature somewhat harder and more forward sound, it stands to reason that the RB1090 will provide an excellent match. Very high-end speakers such as the JMLabs, with immaculate tonal characteristics and deep bass resolution may benefit to a lesser extent, though the sound of the system is not poor by any standards. It is wise, however, to audition the amplifier with speakers of your choice to achieve the kind of sound with which you, the listener, might be happy. We can tell you that the RB1090 is a very cost-efficient design that belongs in the upper echelon in this business. We feel that the unit provides more sound—good sound—than its relatively low price may suggest. You know what they say—hearing is believing; and there is a dealer out there somewhere who will be happy to show and sell. :|

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