

# Perreaux Radiance R200i Integrated Amplifier Review

by Robert van Waes



Hi-fi and music: it is a great hobby! Apart from all kinds of equipment one also gets to meet many passionate people, every one of them with their own view on audio reproduction. For example, I recently had the pleasure to meet the owner annex business manager of High-end Chile, Omar Gonzales and his charming wife Melanie (from Chile). This was a very warm meeting indeed; those people became friends for life. Another great thing was the new review candidate I picked up there, the Perreaux Radiance R200i integrated amplifier.

Omar was so incredibly convinced by this little body builder and its performance that he wanted me to hear it in my own listening room, using my own set-up. Accompanied by some nice Chilean presents the friendly importer for the Benelux, Electric Audio from the Dutch town of Apeldoorn, gave me a Radiance 200i to review. Perreaux, housed in Mosgiel close to Otago's provincial capital Dunedin in southern New Zealand, was founded in 1974. Their first commercial product was the GS2002 integrated amplifier, an amplifier that delivered an amazing 22 Wrms per channel. In 1976 Perreaux produced New Zealand's first 'home-made' PA system used by the locally famous rock band Ragnarok. The sound system weighed three tons, delivered 900Wrms per channel and led to some world fame for the brand name Perreaux since a few Australian export orders were placed as well. During the years 1977-1978 Perreaux discovered the MOSFET as an end transistor, an end transistor that combines the sound advantages of tube amplification with the physical advantages of the classic bipolar transistor amplification. In 1979 the first Perreaux MOSFET amplifier was released, leading to the fact that the company kept on expanding during the eighties. Very remarkable is that, according to Perreaux, despite thousands of units warranty claims have been virtually non-existent in all of Perreaux' history.



Currently Perreaux has an extensive assortment of integrated amplifiers, pre-amplifiers, amplifiers, phono amplifiers, DACs etc... arranged in three product ranges. There is the basic, budget-orientated 'Silhouette' range, the 'Reference' range which is based on professional techniques, and the 'Radiance' range which is meant to set a new hi-fi standard. According to Perreaux, this last range should result in sound reproduction of unprecedented integrity because of their design experience of more than a quarter century and the exclusive selection of components. We need not mention bold statements like these create great expectations...

A very elegant product arises from the stylish double packaging full of company logos. The excellent build quality and finish of this little New-Zealand amplifier strike you immediately. Although the R200i is rather small (430 w x 105 h x 340 d) it is quite heavy: 13.5 kilos! The front panel consists of a 10mm-thick, (in this case) black anodized aluminum panel that has a centrally-placed, ellipse-shaped gap housing the blue alpha-numeric vacuum fluorescent display and five miniature buttons. The brand name Perreaux is engraved bottom-left on the front panel. The left- and right side of the casing is completely occupied by the cooling elements of the end stage. The top plate is made of black, high-shining acryl. Because of the lack of buttons on the front panel and the minimalist design of the rest of the casing the Radiance 200i looks very trendy.



All functions are controlled and driven by a microprocessor and are operated by three miniature buttons to left, and two miniature buttons right of the display. Partly due to the Microprocessor control the R200i can be used in all kinds of situations: as an integrated amplifier, a pre-amplifier or an amplifier. Left of the display we find the stand-by button and two scroll buttons that allow you to scroll through the menus. Right of the display we find the menu/enter and the mute/exit button. All advanced functions can be accessed using the supplied remote control that has 36 buttons emitting blue light for some seconds after they have been pushed. The remote control, made from a heavy zinc injection-moulded frame, an acryl plate and silicone rubber buttons, is ergonomically designed and very pleasant to operate despite (or due to?) its heavy weight.

The rear traditionally houses all the in- and out connectors: two pairs of smart WBT loudspeaker-clamps that can be used to connect loose wires, forks and banana plugs, one pair of balanced in-connectors and four pairs of single ended RCA in-connectors. Via two pair of pre-outs, one without volume control before and one with volume control after the pre-amplifier you can involve an extra amplifier into reproducing music.



A USB-port allows for future software-updates to be carried out. Furthermore, one trigger input and two trigger outputs allow you to switch a complete Perreaux set in or out of stand-by. An IEC-power connector with built-in fuse holder allows the user to use a power cord as he chooses and pleases. Because of the fact that the product is quite small the loudspeaker clamps are rather close to the balanced in-clamps on the one side and to the IEC-power connector on the other. It took some rearranging of my Kimber Select cables before the WBT cable forks could be properly connected.

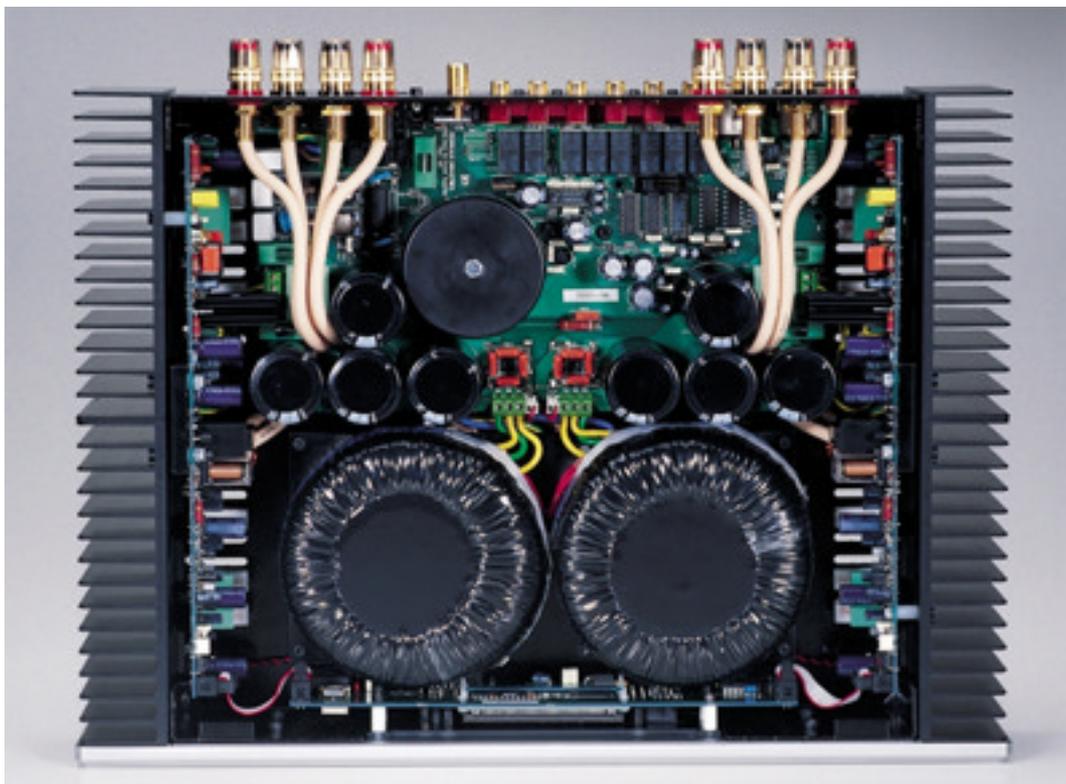
### Inside

What strikes you inside is the purist way in which the dual mono construction of the R200i has been carried out; one integrates as if it were two complete mono amplifiers into one casing here. By applying two qualitatively high-power power circuits and strictly separated alignment and flattening of the pre- and end-amplifier currents you get maximum channel separation. Using six very high current Toshiba MOSFETs end transistors, a capacitor battery of 40.000 microfarad per channel and a maximum power capacity of 60 Ampere channel, the Radiance 200i can keep its head cool, no matter what loudspeaker is connected.

The low internal electrical resistance in conductor-state of the Toshiba MOSFETs takes care of a lot less heat thus creating high thermal stability. Some top-class components made by celebrated manufacturers such as Burr Brown and Crystal are used in the pre-amplifier section. The microprocessor-controlled volume control is constructed around a double resistor-ladder network built up of precision resistors. A remarkable characteristic in this price class! According to Perreaux all of these aspects should guarantee an effortless reproduction of an extremely stable and detailed soundstage with a maximum of dynamic contrasts.

All this musical violence is continually and accurately monitored by the (again) microprocessor-controlled security circuit. External power supply, internal power supply, clipping, over-current protection, over-temperature protection, current temperature of the end-stage, DC offset, etc...: all of these are closely controlled by the microprocessor. In addition to all this, the security circuit also takes care of the 'soft start' when switching the R200i on and off. You can access the most important diagnostic data via the menu and see it on the display. Via this menu you can even program a maximum volume setting: an extra certainty for the survival of your set during teenage-parties taking place in your absence.

By themselves, numbers prove nothing. They do however say a lot about the components used, and the care the manufacturer put in the construction of its product. Remarkable is that every product is delivered with a bundle of measurement reports. The things promised in the brochure are actually proven. The following specifications are quite extraordinary in the integrated amplifier-class:



### Technical specifications

- Preamplifier Section
  - Frequency Response: 0Hz–100kHz,  $\pm 0.25$ dB
  - Total Harmonic Distortion (THD+N):  
Typically 0.003% @ 1kHz
  - 20Hz to 20kHz <0.005%
- Power Amplifier Section
  - Continuous Power Output (per channel): 200Wrms into 80
  - 360Wrms into 40
  - Voltage Swing:  $\pm 80$ Vp-p
  - Damping Factor: >2000 into 8  $\Omega$
  - Maximum Current Output: 60A per channel
  - Smoothing Capacitance: 80,000 $\mu$ F (40,000 $\mu$ F per channel)
  - Driver Stage: Class A
  - Output Stage: Class A/AB

### Let's listen!

100 Kg Sushi power versus 13.5 Kg Kiwi power! My Sony E1-N1 pre-and end combination has to make room for an opponent from New Zealand. The necessary cables are connected and soon the first sounds enter the listening room.

What does this little body builder sound like? Often an amplifier has the tendency to tend to either the 'warm' musical side, or the 'cold' analytical side. Only a few white ravens, for example Spectral or the top of the digital amplifiers like the Lyngdorf Millennium, are blessed with absolute neutrality, complete transparency and no trace of coloring in the entire frequency spectrum whatsoever. The R200i can definitely join this elite! This member of the Perreux family seems to combine the best of both worlds in one compact casing. Not only is the R200i very quick and open, it is also completely transparent and has natural, musical, light feet.



These characteristics, combined with absolute control and authority, make every listening session a true pleasure. Perreaux has succeeded in a quasi-perfect symbiosis between two audio components, namely speed and musicality. Grandiose, quick, powerful, authoritarian and with an amount of control you would only expect from a heavy pre- and end combination, but also equipped with speed, subtlety, refinement and compression less transparency. All this on a level you would not expect from an integrated amplifier. The soundstage presented to us by the R200i is open, wide and deep; you almost think there is 3D holographic reproduction instead of a stereo system. Because of this almost entirely transparent character the amplifier is very revealing, both towards the recordings and to the components around the amplifier. The R200i hides nothing from and adds nothing to the real tonal color of the recording, source or loudspeaker. The resolution of the reproduction is so high the instruments and voices become, as if it were, physically touchable, they become completely disconnected from the soundstage. Despite the very open, precise and detailed soundstage the reproduction never gets thin, tenuous or fatiguing analytical.

The speed is presented to the listener in such a fluent way that I would sooner name the reproduction to be absolutely neutral and musical, than I would name it purely analytical. An aside: personally I think there is a great difference between a very detailed and a truly cold analytical reproduction. A healthy dose of detail and transient reproduction give the musical restitution just a bit more realism, whereas a purely analyzing product usually completely destroys the coherence thus losing a lot of musicality. The reproduction by the R200i is solid as a rock and has a very natural presence. Another striking aspect is the formidable control exercised by this giant over the loudspeakers. The double woofers of my Amati's are kept firmly in line by the R200i. Amplifiers that have no sufficient control are often responsible for a too large amount of bass in our not-quite-finished (mostly where dampening is concerned) listening room. However, this is not the case with this Radiance R200i, the dampening factor of more than 2000 is clearly accountable for this. This results in a formidable bass control; not only is the reproduction deep to the subsonic level, it is also tight, controlled and layered.

A wonderful recording to demonstrate this is the hybrid SACD "Far More Drums" by the Robert Hohner Percussion Ensemble (DMP SACD-10). The stage is enormously wide and deep, a stage

that as if it were completely dissolves the speakers. On the field of 'peace and rhythm' the R200i convinces again. The silences turn seamlessly into super fast, fierce and incredibly loud attacks on the drums. Every touch is perfectly traceable with the tones slowly dying out as an addition to the expression of the music. The wood percussion sounds pointy, accurate and convincingly life-like. As a whole it is extremely convincing: quick, grand and pressure-full; but very light as well. All the nuances in the bouquet of the different types of percussion are depicted magnificently and create a swift, uncolored and no-compromise soundstage.

### **Assessment**

Pros:

- + Build quality and finish
- + Top-class audiophile components and construction
- + No-compromise quick reproduction without any coloring

Cons:

- Perhaps the (for now) limited brand awareness in Belgium, as far as that is of any importance to you



### **Conclusion**

A perfect build quality combined with excellent design, components of the highest quality and a tight, stylish design. Build-technically speaking this is a top product; this is (unfortunately?) reflected in the price tag. The reproduction far exceeds the level of the average amplifier. In my opinion the Radiance 200i deserves the tag "Reference" within the integrated amplifier segment... and out of that segment as well! Strongly recommended!!

### **Software List**

Robert Hohner Percussion Ensemble – Far More Drums – Hybrid SACD – DMP SACD-10  
Jeremy Monteiro – A Song For You Karen - Hybrid SACD – FIM SACD 036  
Gary Karr – Adagio d' Albinoni – LP – Cisco Music USA – Firebird super analogue disc KIJC 9125.  
Louis Armstrong Plays W.C. Handy – LP - Pure pleasure vinyl - Columbia CL591  
Mstislav Rostropovich – Vivaldi Cello Concertos – LP – DG – 2530 974.  
Jackson Browne – Solo acoustic vol.1 - CD – EMI – LC03098.  
Best Audiophile Voices – Best Audiophile Voices – XRCD2 – JVC – XRCDPR 27901.  
And many more...

## **Review Setup**

Sony SCD-1 SACD player  
Perreaux CD1 Prisma CD player  
Clearaudio Champion Limited Turntable t Clearaudio Symphony MC element  
Clearaudio Symmetry Phono preamplifier  
Sonus Faber Amati Hommage speakers  
Kimber Select KS3033 speaker cables  
Kimber Select KS1130 and KS1111 interlinks  
Lapp power cables met Wattgate sukho en IEC pluggen  
Customized Hifi rack based on Tabula Rasa's Low Board

## **Useful Information**

Manufacturer: <http://www.perreaux.com/>  
Benelux importer: <http://www.e-audiobenelux.com/>  
Highend Chile: <http://www.highend.cl/>

## **Credits**

Written by: Robert van Waes  
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Many thanks to Omar Gonzales of Highend Chile and Benelux importer Electric Audio for supplying the components.