

- SMc Audio -

Hand-Tuned Performance by Steve McCormack

McCormack RLD-1 Preamplifier Upgrades

The RLD-1 is a versatile, high-performance preamplifier. It has been well received by users who value its high-resolution volume control system, user-friendly control interface, and useful features like the "Home Theater Bypass" mode. Of course, these people have been pleased with its sonic performance and reasonable price, as well.

At the heart of the RLD-1 is the Crystal Semiconductor CS3310 volume control - a part that has found its way into some very expensive and highly regarded equipment. This part does have some wonderful features, primarily the ability to control volume in .5dB steps across an extremely broad range - from 95.5dB of attenuation to 31.5dB of gain. This makes a very useful volume control, but how does it sound? After all, the quality of the volume control is the key to the performance of every preamplifier. And the answer is that it does provide good performance after taking care to feed it with excellent power supplies and run it into a very transparent JFET buffer stage.

Like all McCormack Audio equipment, the RLD-1 delivers a great design and excellent cost / performance ratio, but certain compromises are made in the interest of keeping the cost down. So the question arises, just how good can it become with no compromise holding it back? The answer, as usual, is very good, indeed!

The compromises in the RLD-1 are not in the design, but rather in the parts complement chosen for production. These parts are excellent by any normal standard, but we audiophiles harbor an abiding love for parts that go *way* beyond any "normal" standard! My starting point for the upgrades was to fully rebuild the preamp with the best parts available: WBT RCA jacks, Van den Hul carbon signal wiring, Wonder Wire, Black Gate and Nichicon Muse electrolytic capacitors, RTI film capacitors, Mills, Vishay, and Caddock precision resistors, International Rectifier HEXFRED soft-recovery diodes, and more. These parts worked a magical transformation on the RLD-1, but the best was yet to come...

As I was contemplating this upgrade, I discovered a new volume control from Burr-Brown - the PGA2310. This part was designed as a higher-performance replacement for the Crystal Semi part, and it delivers on this promise brilliantly. Although this part replaces the CS3310 and uses the same control codes, it does have different power supply requirements. This means that the power supply system of the RLD-1 must be rebuilt to accommodate it, but the results are well worth the effort! The sound of the upgraded RLD-1 with the new PGA2310 is better in every respect. It is far more relaxed, liquid, and involving. Dimensionality and depth are much better, while the individual instrumental lines are more clearly delineated. Dynamic expression is better, so the delicate shadings that add so much richness and life to music come through clearly.

This preamp really connects you with the performers and delivers the emotional message of the music, and the sound is seamless top to bottom - from the most delicate harmonics to the deepest bass.

Finally, the RLD-1 is exceptionally stable and reliable. It consumes only a small amount of power, so it is designed to be on continuously (the "Standby" button simply mutes the output and shuts down the display - power is still fed to the circuit). Its performance will not change or degrade over time, and it will always be ready to deliver beautiful music whenever you wish.

Here are some comments from recent RLD-1 Platinum Edition owners:

"... When people talk about how (SMc Audio) upgraded amplifiers "can compete with amps at any price," the same thing can be applied to the RLD-1 upgrade. The decent-enough preamp to begin with is now startlingly better... You get vastly more resolution, more refinement, and a greater sense of ease and liquidity; bass is deeper and faster, too. The soundstage is incredible. The other aspect of the new presentation that I really like is that it's now receded a bit more. Before, it was a little too forward-sounding for my tastes, and now it's set back beyond the speakers."

"A new (retail) RLD-1 and Platinum Edition upgrade will cost about \$3000. I seriously cannot think of another preamp at that price that can bring this much to the table."

A. L., Austin, TX

"I also recently received the RLD-1 Platinum Edition from Steve McCormack and I'm just as impressed as (A. L.) While I was very happy with the RLD-1 as is, Steve's improvements have elevated it's performance to levels only found on much more expensive units."

"To quote (A. L.): 'You get vastly more resolution, more refinement, and a greater sense of ease and liquidity; bass is deeper and faster, too. The soundstage is incredible. The other aspect of the new presentation that I really like is that it's now receded a bit more.' I heartily second all these improvements."

"If by "receded" he means deeper, I agree, but not by "a bit." My VR-4jr's now nearly disappear, generating not from the speaker itself but well beyond them, more depth than I've ever heard from my system. Almost like you could reach into the music! Now to get my other, already very good, RLD-1 "Platinumized" by Steve McCormack!"

G. M., Reno, NV

The Upgrades

The Platinum Edition RLD-1: The term "Platinum" refers to the best upgrade I can offer. This is a complete rebuild and includes all of the best parts and options, and delivers absolutely the best performance. It includes not only all of the work described above, I also install a custom-made Plitron toroid transformer designed specifically for the RLD-1, and two pairs of WBT RCA jacks. The WBTs are usually fitted in the CD

inputs and one set of main outputs, but you may specify a different location if you wish. (Additional WBT jacks are available if you wish to upgrade other input sets.) Carbon wire is fitted on all of the Cardas and WBT jacks, and is used to couple the output directly from the circuitry to the output jacks, bypassing the circuit board entirely. The Van den Hul carbon wire delivers the highest performance of any wire I have worked with, but is difficult to prepare and terminate. Once in place, it outperforms any metal wire I know of, and is completely stable and inert, ensuring high performance for many years to come.

Wonderfully musical and engaging, the Platinum Edition RLD-1 offers exceptional performance, great flexibility and easy operation, all for a very reasonable price. Could this be the perfect preamp? You be the judge...

The Gold Edition RLD-1: The Gold Edition RLD-1 includes all of the upgrade work done in the Platinum Edition, we just eliminate the Plitron transformer and WBT RCA jack options in the interest of reducing cost while maintaining the essential performance characteristics. This is a great preamplifier that will keep your toes tapping for a long time to come.

The Silver Edition RLD-1: The Silver Edition work is designed to hit the optimum "sweet spot" for price vs. performance. It is well along the curve of diminishing returns, so it delivers a significant fraction of the Gold-level performance at a lower price. I start with the new PGA2310 volume control and the power supply topology changes required to run it properly. Then I focus on upgrading the most critical signal-path parts - the resistors and capacitors that have the most influence on the sound. Finally, short runs of carbon wire to the CD input and Main Outputs add an important touch of liquidity and transparency. Seldom has a preamplifier delivered so much quality performance for such a modest investment.

Call today to discuss any questions you may have and to schedule your upgrade.

- SMc Audio -

929 El Pajodo Place

Vista, CA 92084

phone: 760-732-0352 fax: 760-732-3209

e-mail: SMcAudio@cox.net web: www.SMcAudio.com