

- SMc Audio -

Hand-Tuned Performance by *Steve McCormack*

McCormack DNA-125 & 225 Amplifier Upgrades

The DNA-125 & 225 amplifiers were the first designs I created for the new McCormack Audio Company after its move to Virginia. These new amps replaced the original DNA-0.5 and DNA-1 models, which enjoyed an unusually long and successful life in the high-end marketplace. At SMc Audio, I had already developed a variety of upgrades for the DNA-1 and DNA-0.5, taking their performance to higher levels. Many ideas that shaped those upgrades were integrated into the DNA-125 & 225 amplifiers, enhancing the sonic performance of the new DNA amplifier series.

The DNA-125 & 225 have now become success stories in their own right. They deliver what I have always worked hard to achieve in my commercial designs - top-notch performance at a relatively modest price. Both are very capable amplifiers, and even the smaller DNA-125 boasts enough muscle to handle some very difficult speakers with ease. Both deliver more than a glimpse of true state-of-the-art performance, which is a remarkable achievement considering their price. This has naturally lead to some speculation about what might happen if these amps were upgraded in a no-holds-barred effort to deliver the best-possible performance. What lofty heights might these amps aspire to if they were really pushed? Well, let's find out...

Please note: with the upgrades detailed below, I am introducing a new naming system for SMc Audio's high-performance revisions:

Platinum Edition: The Best of the Best - the top revision level, including all available options.

Gold Edition: The same overall upgrade as Platinum, excluding some options.

Silver Edition: The "point of diminishing returns" upgrade, including all essential circuit revisions, premium parts, and performance enhancements. Silver Edition work provides considerable performance improvement at an optimum cost vs. performance tradeoff.

The *Platinum Edition* Upgrade

Development work is finished and results are in. In a word, Spectacular! The original DNA-1 and DNA-0.5 Revision A Gold are already extraordinary (attested to by dozens of owners), but the new DNA-125 & 225 Platinum Edition amplifiers are better yet: even more neutral tonally, more transparent, and with greater front-to back depth. These revisions allow the amps to "disappear" completely, leaving you with an incredible sense that there is nothing between you and your music. These upgrades create a sense of liquid sonic ease and smoothness with no trace of grain or harshness. Extreme dynamic

contrasts are reproduced effortlessly. Subtle, dynamic shadings that breathe life into a performance emerge completely. Each instrument and each musical line stands out individually while forming an organic musical whole that draws you into the performance. Bass dynamics and resolution are subterranean and powerful, with taut control and slam. Music emerges from a velvet black background so that the subtlest nuances are clear and decay within three-dimensional space. These revised amplifiers produce music in a way that very few components approach, at any price.

Platinum Edition DNA-125 & 225 amplifiers incorporate every upgrade element that I have developed to date. Only the finest parts are selected, chosen for their superb audio characteristics - Mills, Vishay, and Caddock resistors; Black Gate, TRT DynamiCap, RTI, Nichicon Gold Tune and Muse capacitors; Harris and International Rectifier soft-recovery diodes; Van den Hul, Siltech, and Shunyata wire. The Platinum Edition also includes all of the elements previously offered as separate options, such as WBT RCA jacks, Cardas Deluxe binding posts, Black Gate bypass caps, High-Current Soft Recovery Diodes, Plitron Toroid transformer, Balanced inputs, MusiCoat treatment, and the new Carbon/Siltech Wire Transformation. (For further information about the Carbon/Siltech wire upgrade, please click on that literature link on our website at www.SMcAudio.com.)

Each amplifier is carefully checked for proper operation before disassembly and upgrade work begins. Original parts are removed as necessary and new parts are carefully installed by hand. Wonder Solder is used throughout. Special crimping tools are used to ensure a gas-tight seal with soft copper crimp lugs where required. New soft-recovery diode bridges are fabricated to our specifications from individual high-performance parts. All new parts are checked for proper mechanical and electrical connection. Your new amplifier begins to take shape, born again from the combined elements of the upgrade and the original. After final assembly, the amp is tested thoroughly on the bench and moved into our reference system for listening tests and final adjustment. When we are satisfied that it meets our high standards, and only then, return shipment delivers it back to you.

Platinum Edition amplifiers provide both balanced and unbalanced inputs. My input circuit design delivers enhanced performance for both inputs by processing both types of signal identically. This system blocks DC and RFI (Radio Frequency Interference) and provides the best-possible common-mode noise rejection (CMRR approaches -130dB), and allows a simplified input stage circuit topology for better sonics. Common-mode noise rejection is normally associated only with balanced inputs, but my input circuit provides substantial noise rejection for unbalanced signals as well (this is dependent on the type of interconnect cable used, but it works very well with twisted-pair or equivalent cable designs).

As a technical aside, most specifications for my upgraded amplifiers - including the power rating - change very little. However, adding the large Plitron toroid transformer increases the available current, and rather dramatically in the case of the DNA-125. The Platinum Edition DNA-125 delivers precisely the same sense of effortless command and authority produced by the DNA-225. It drives difficult speakers with an ease that far exceeds its relatively modest power rating. Hearing it, many believe they are listening to a much higher-powered amplifier. Bass performance has rock-solid authority, enormous slam, and a sense of magical pace and rhythm. Best of all, bass instruments truly sound like instruments - not muddy and indistinct. With the Platinum upgrade, you hear each individual musical line with ease, all the way into the deepest bass registers.

For those looking for the absolute ultimate in performance, both the DNA-125 and 225 Platinum Edition amplifiers are available as monoblock pairs at no additional cost (when done as part of the original upgrade). The monoblock DNA-125 will deliver 400 Watts into an 8-ohm load, and the DNA-225 will deliver 800 Watts. Both maintain the ability to drive difficult loads with ease, without excessive heat. These monoblocks are “true balanced,” fully differential amplifiers that drive your speakers in “push-pull” mode, providing the best-possible control of the speakers.

With the Platinum Edition, I have made every effort to deliver the finest-possible amplifiers. The results are extraordinary. These amplifiers perform alongside the best amps available today, regardless of price. Many of my customers believe that their revised DNA amplifier is the best amplifier that they have ever heard, period. I deeply appreciate such evaluations because I strive for an absolute sonic outcome with this upgrade work. Not “good,” or “better,” or “almost amazing,” but “The Best That Can Be Accomplished.” While I'm well aware that there is no definitive answer regarding which amplifier is THE best, Platinum and Gold Edition amps provide performance second to none, at a price well below comparable units. I have spent a lot of years in this business honing my craft, and I take great pride in offering this work to you. One of my recent customers may have summarized it best, referring to his DNA-2 Rev A: “This ain't a product; it's art.”

The Platinum Edition offers the following:

- **Full product rebuild with the finest available parts**
- **Hand craftsmanship and expert attention to detail**
- **Mills, Vishay, and Caddock resistors**
- **Black Gate, Gold Tune, Muse, DynamiCap, and RTI capacitors**
- **Neutrik balanced XLR inputs**
- **WBT unbalanced RCA inputs**
- **Cardas Deluxe binding posts**
- **Carbon / Siltech wire matrix for ultimate transparency, detail, and smoothness**
- **Plitron Toroid Transformer**
- **Harris and IR Soft-Recovery Diodes for both input and output stages**
- **Black Gate Bypass Caps on the output stages**
- **Shunyata AC wiring**
- **MusiCoat Treatment**

The Gold Edition Upgrade

The Gold Edition upgrade is designed to offer performance very close to the Platinum Edition, at a substantially reduced cost. This is accomplished by eliminating certain upgrade elements - in this case, the Plitron transformer and the balanced inputs. This reduces the cost considerably while still delivering outstanding performance. When considered in absolute terms, the Plitron transformer and balanced input circuit are certainly desirable, which is why they are part of the Platinum Edition upgrade. However, when looked at from a cost / benefit standpoint, it is possible to significantly reduce the cost of the Gold Edition by eliminating them, still achieving truly outstanding performance. All other aspects of the Gold Edition upgrade are identical to the Platinum model.

The Gold Edition offers the following:

- **Full product rebuild with the finest available parts**
- **Hand craftsmanship and expert attention to detail**
- **Mills, Vishay, and Caddock resistors**
- **Black Gate, Gold Tune, Muse, DynamiCap, and RTI capacitors**
- **WBT Unbalanced RCA inputs**
- **Cardas Deluxe binding posts**
- **Carbon / Siltech wire matrix for ultimate transparency, detail, and smoothness**
- **Harris and IR Soft-Recovery Diodes for both input and output stages**
- **Black Gate Bypass Caps on the output stages**
- **Shunyata AC wiring**
- **MusiCoat Treatment**

The Silver Edition Upgrade

The Silver Edition upgrade is designed to strike a balance between price and performance. It employs a carefully selected set of parts to deliver significant performance improvement, well along the curve of diminishing returns. Without reservation, this is a superb upgrade for an already excellent amplifier. While Platinum and Gold Edition upgrades seek to establish absolute performance goals without regard for cost, the Silver Edition delivers outstanding performance at a relatively modest cost. A select subset of parts used in the Gold Edition are installed in the most critical circuit locations, delivering a wonderfully cost-effective performance enhancement. Sonic improvements will be found in greater textural richness and a fuller tonal palette, improved transient detail and ambience retrieval, as well as much more vivid dynamic contrast. Like its higher-priced cousins, the Silver Edition upgrade delivers the liquid, relaxed musical signature that my work is well-known for. This amp “gets out of the way” and lets your music shine through with emotional impact and involvement. It invites you to listen hour after hour, disc after disc, as you rediscover your music collection.

The Silver Edition offers the following:

- Select product rebuild with the finest available parts
- Hand craftsmanship and expert attention to detail
- Mills, Vishay, and Caddock resistors (selected locations)
- Black Gate, Gold Tune, Muse, and RTI capacitors (selected locations)
- Van den Hul and Shunyata wiring
- Harris Soft-Recovery Diodes for the input stage
- Cardas RCA jacks
- Cardas HCBP binding posts

All upgrade work is performed at the SMC Audio shop in California. No kits or plans are available.

Scheduling and Turnaround Time: Our goal is to complete your upgrade as soon as possible, consistent with our quality requirements. Many of the upgrades are very labor-intensive and time consuming, so completion times vary. Ten days to 2 weeks is typical, but we may occasionally need more time to finish your work. We ask for your patience and understanding. We typically operate with a work backlog of several weeks. Give us a call when you are ready to schedule an appointment and we will go over the details. We will discuss any questions you may have and give you a date when we expect to start your work. Your amplifier is not shipped until about a week ahead of that date. We will also go over your shipping requirements and give you the total for your work, including shipping and handling. Please note that you may make changes to the specifics of your upgrade up to the time that we start the work.

Shipping Policy: The customer provides shipping both to and from SMC Audio. We work with both UPS and FedEx but we suggest using FedEx Air Service, especially for amplifiers larger than the DNA-0.5 or DNA-125. We strongly recommend that you fully insure your amplifier enroute to us, and we will properly insure it for the return trip.

Packaging: It is very important that your amplifier be shipped in the original packaging whenever possible. In addition, we strongly recommend double-boxing with an outside box approximately 2 inches larger all the way around, with the gap filled with packing foam, bubble pack, or something similar. Protect your amplifier's finish by placing it in a plastic bag. Please keep your manual and power cord. If your packaging is incomplete, or you are not sure of the correct method of re-packing, **please discuss these details with us before you ship.** It is easy to damage heavy amplifiers if they are not packaged

properly! It is well worth the time, effort, and even a few extra dollars to ensure that your amplifier is properly protected. We will double-box your amplifier for return shipment.

Payment: Full payment by check or money order should accompany your amplifier along with a note detailing your contact information, return shipping address, and any other pertinent information. Please make your check payable to **SMc Audio**.

California Residents are subject to applicable sales tax.

The Fine Print: Our upgrades are handcrafted using the finest parts available, and we expect them to last for a very long time. We will repair any defects in materials we have used or in the work that we have done for a period of three (3) years from the date of sale, including parts and labor. You pay the freight to us, and we will cover return shipping via surface UPS within the continental U.S.

We reserve the right to determine if any failures are the result of our upgrades, or caused by other problems. (In other words, if you decide to move your speakers late one night and happen to cross the wires... hey, it's not our fault.) Repair work outside of warranty will be billed at \$40 per hour, plus parts. But, if you promise to be careful, we promise to be liberal in our judgement. We plan to be in this business for a long time, and we want you to be a happy SMc owner.

Custom Work: We like to stick to "The Plan" as much as possible, but if you have a special requirement or variation in mind, feel free to discuss it with us. We may not be able to service every request, but we will do our best.

Recommended Accessories: We continue to experiment with various accessories to help extract every last bit of the performance these designs are capable of. We feel that certain types of AC power cords and isolation bases do offer legitimate improvements and may have a place in your system. Ask us about the latest results of our ongoing research, and be sure to check the FAQ page on our website at www.SMcAudio.com.

Other Available Upgrades: Upgrades are available for a number of McCormack Audio products, but we only work on McCormack equipment. Please contact us at (760) 732-0352 for additional information or to discuss your requirements.

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