

Momentum S250 MxV Amplifier from Dan D'Agostino | Review

November 11, 2022 | Mohammed Samji



Interested in **Dan D'Agostino's** most extensive amplifier upgrade in 11 years? Want to watch a D'Agostino Momentum S250 stereo amplifier get upgraded to the new Momentum S250 MxV? Curious about how well it can ignite our trusted Wilson Audio Alexx V loudspeakers? Keep reading...

Words and Photos by: Mohammed Samji

Eleven years ago, D'Agostino re-entered the hi-fi world with his debut D'Agostino Momentum 300 Mono amplifier. D'Agostino wanted the freedom to do the things he couldn't do in his earlier career at Krell. The early Momentum amplifier prototypes were built using a flexible jig that

allowed him to experiment and try things differently. He didn't stop until his new amplifier design sounded better than anything else he had heard. The result was the Momentum M300 Mono amplifier and the D'Agostino Master Audio Systems launch around 2010.



I will never forget that evening in Seattle when I heard its debut. These relatively small amplifiers packed jewel-like casework, rich-looking copper heat sinks, and power meters inspired by the world's finest watches.

The Momentum M300 Mono was followed by a Momentum S200 stereo amplifier, which has graced my reference room for over nine years. Around five years ago, the M300 and S200 amplifiers were followed up by higher-powered M400 and S250 amplifiers. Customers of the earlier versions could send their amplifiers back to D'Agostino and have them upgraded. The upgrade included a replacement of the amplifier input stage and power supply.

I jumped at upgrading my unit from the original Momentum S200 to the updated S250 in 2017. The improvement was not subtle, and I still remember the sonic improvement when driving my Wilson Audio Alexia Series-2.

Starting in late 2021, the M400 and S250 received an even more significant update and are now referred to as the M400 MxV and S250 MxV. It's almost unfair only to add just MxV to the name of both products since once an amplifier has been upgraded, not a single original part or even wire remains. Everything in the amplifier has changed outside the original case, copper, and transformer.



Introducing the D’Agostino Momentum S250 MxV stereo amplifier

As mentioned earlier, the new Momentum S250 MxV amp (and its M400 MxV Mono siblings) is a new amplifier that shares nothing with its predecessor outside a case and power transformer.

The MxV update includes a new input stage, output stage, protection circuit, power supply board, binding posts, rear panel, transformer, and a new meter. No part is left behind, and every change takes cues from the more extensive D’Agostino Relentless series.

D’Agostino Momentum S250 MxV stereo amplifier inspiration

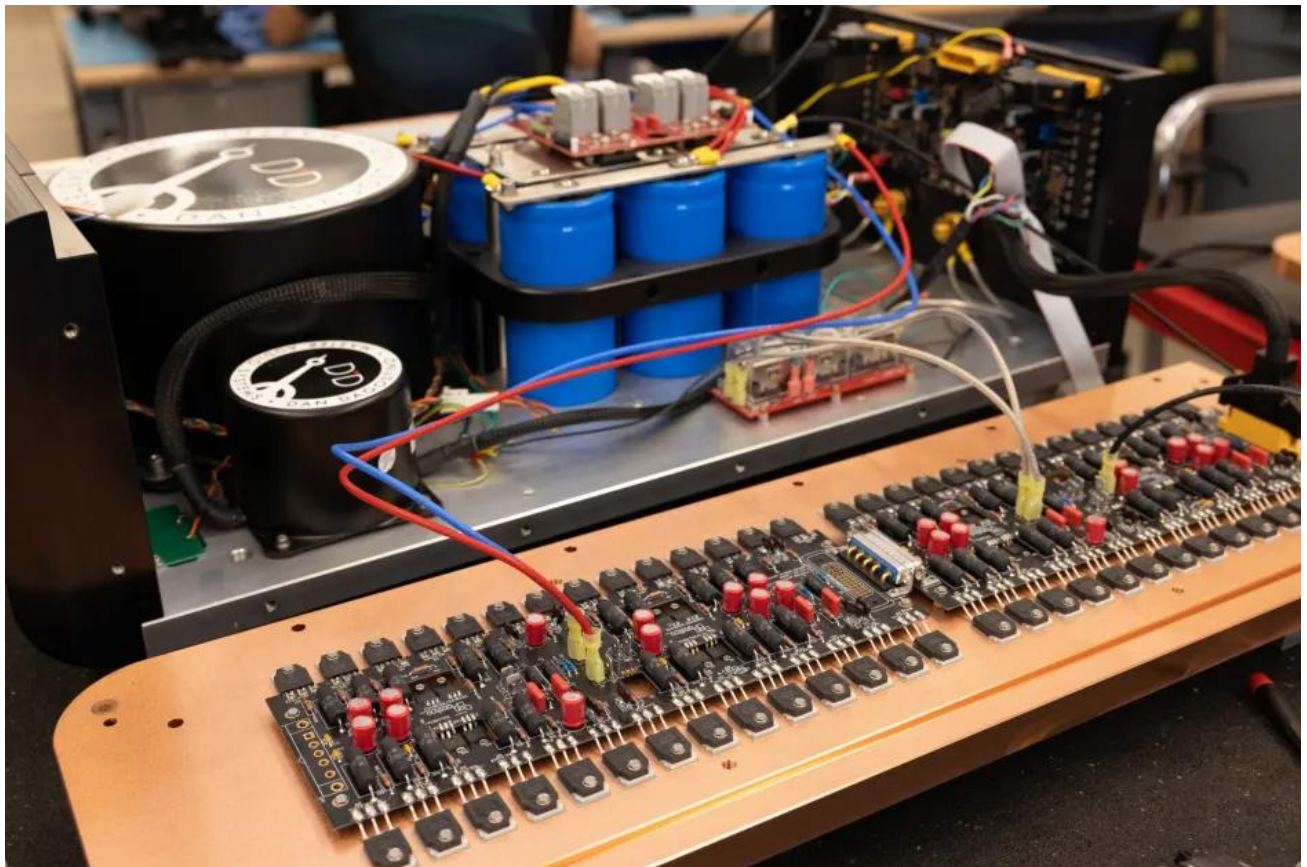
During a visit to the D’Agostino factory in Arizona, I asked Dan for his inspiration for the Momentum MxV amplifier upgrade 11 years after the original Momentum.

Dan explained that it started during the development of the larger Relentless Epic 800. They made several changes to the design of the input and output stage circuitry that reaped significant gains. These were areas where Dan wanted to push the envelope and leverage the additional space available in the larger Relentless chassis. The output stage, in particular, got a complete overhaul.

These changes blew them away, and for a *short* moment, the Relentless 800 might have sounded better than its larger sibling.



Dan D'Agostino and Mohammed Samji holding the Relentless Epic 1600 Output stage



Inside a Relentless Epic 1600 Amplifier

No fear, as D’Agostino always showers these new advancements across his product line. Once he heard it in the 800, similar changes were made to the Momentum M400 and S250 resulting in the MxV update reviewed here. Next, these innovations were also implemented in the top-of-the-line Relentless resulting in the new Relentless Epic 1600 amplifier that will change your perspective on what’s possible.



Relentless Epic 1600 output stage being carefully constructed.

D’Agostino said:

“If I could make a unit for 10,000 work better than a unit I was selling for 50,000, I would do it, and then I would change the 50,000 unit to sound even better.”

Innovation is fantastic, but it’s even sweeter when a product you have purchased in the past can be upgraded to the latest revision, including these changes. We love D’Agostino’s commitment to keeping his creations up to date and bringing innovations down to lower-priced products like the Momentum from learnings from larger Relentless.

Think about it, a customer who purchased an original S200 or M300 over ten years ago can upgrade to the current MxV generation that benefits from R&D across the Relentless Epic 800 and Relentless Epic 1600 amplifiers.

D'Agostino Momentum S250 MxV changes & upgrade process

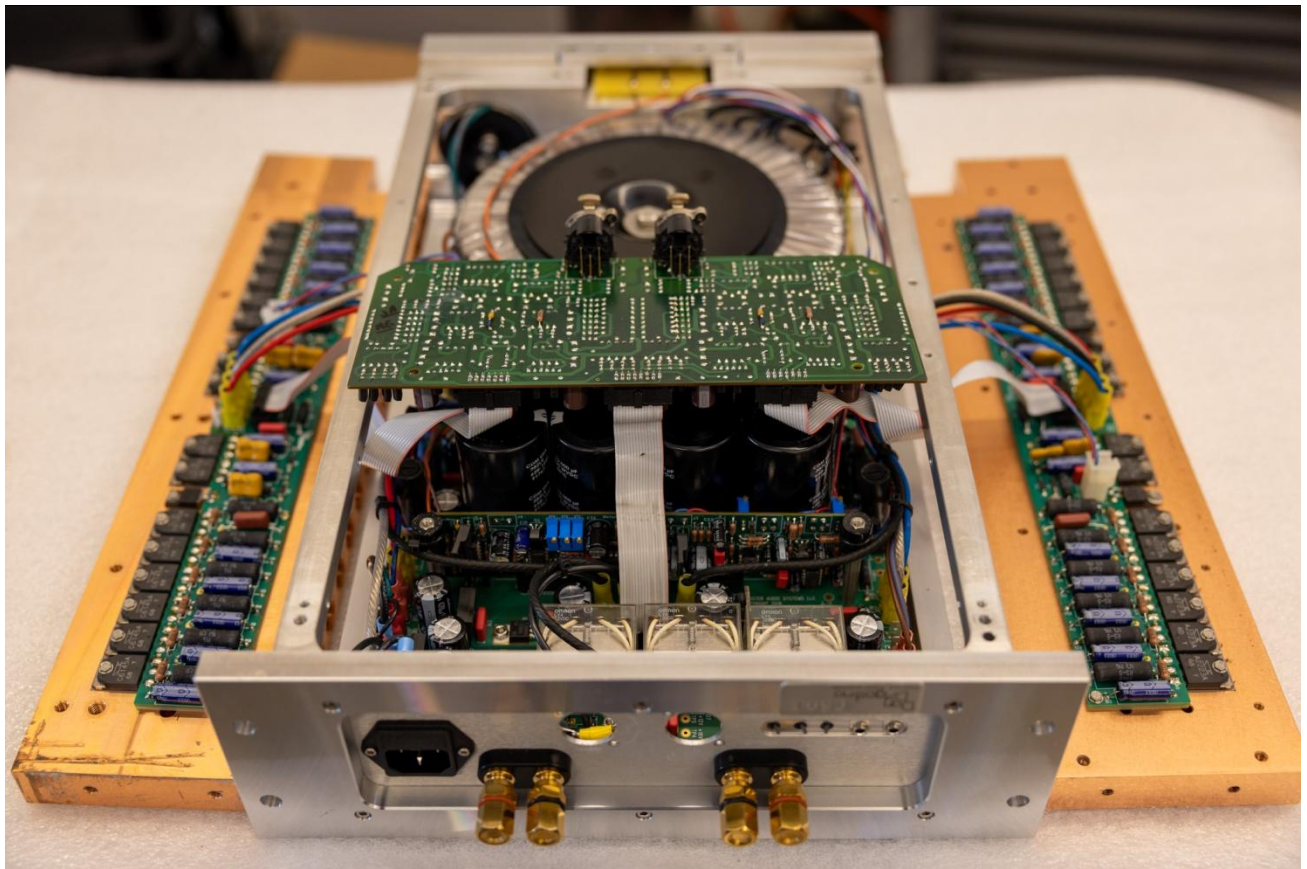
After waiting many months for my turn, my S250 amplifier was sent to Scottsdale to upgrade to the new Momentum S250 MxV. I jumped at the opportunity to fly to the D'Agostino factory to learn more and to watch firsthand my amplifier getting the full MxV update.

The first thing I discovered when I arrived at D'Agostino is there is no specific service department. It is the same craftsman who builds every new unit and who also does the updates! The update is more demanding than a new build since you will see the time required to disassemble existing products before these upgrades. The result is that an upgraded S250 MxV is indistinguishable from a brand-new S250 MxV. I'll caveat that this isn't 100% true for my unit. I started with the original S200, and cosmetically the original S200 has a slightly different copper shape at the top front corner.



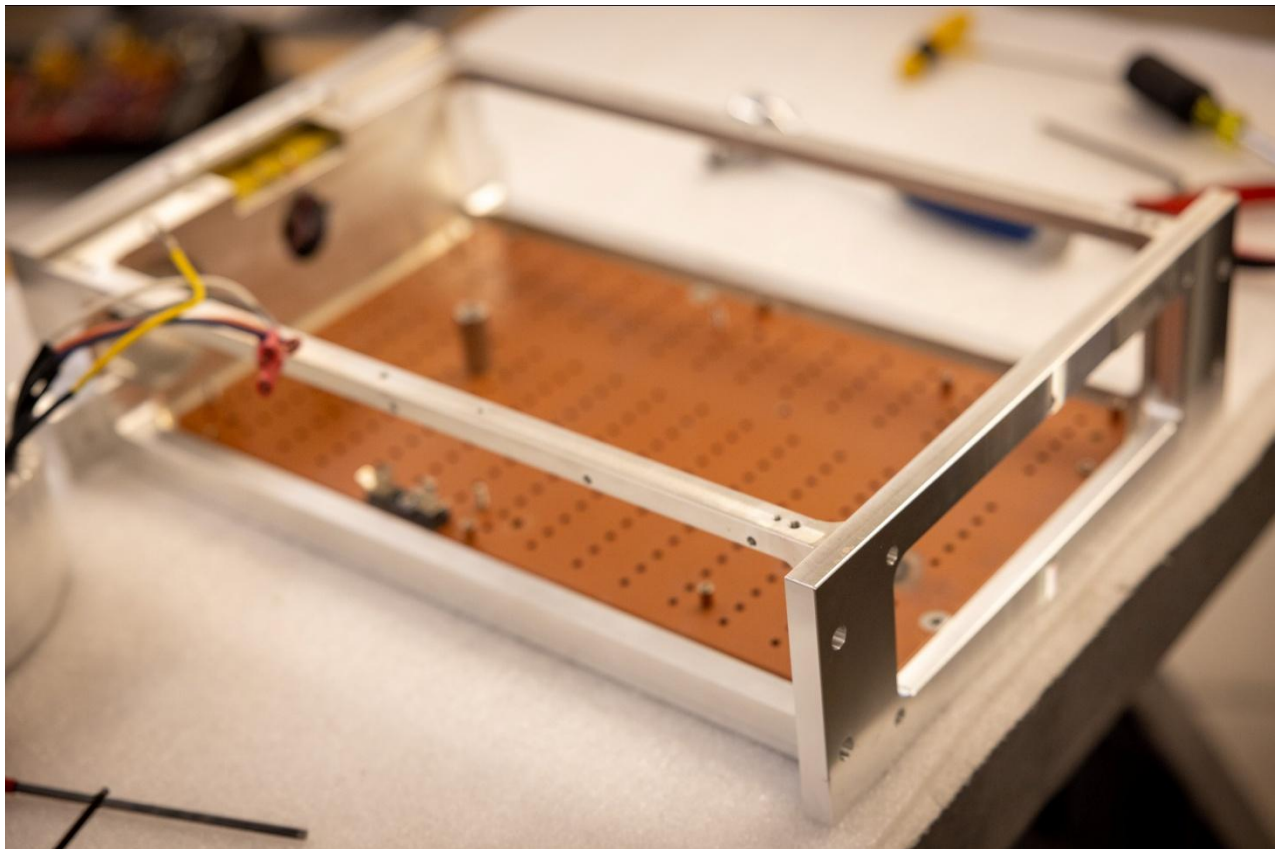
Momentum S250 MxV disassembly

If this is an upgrade, the first step is to disassemble the amplifier completely.



Mohammed's D'Agostino Momentum S250 amplifier is getting ready to be upgraded.

Everything is removed from the unit.



Next, the rear plate is replaced with a new version that hosts the Momentum S250 MxV branding, recent binding posts, and a more straightforward switch design. The toggle for the meters is no longer needed in the latest design.

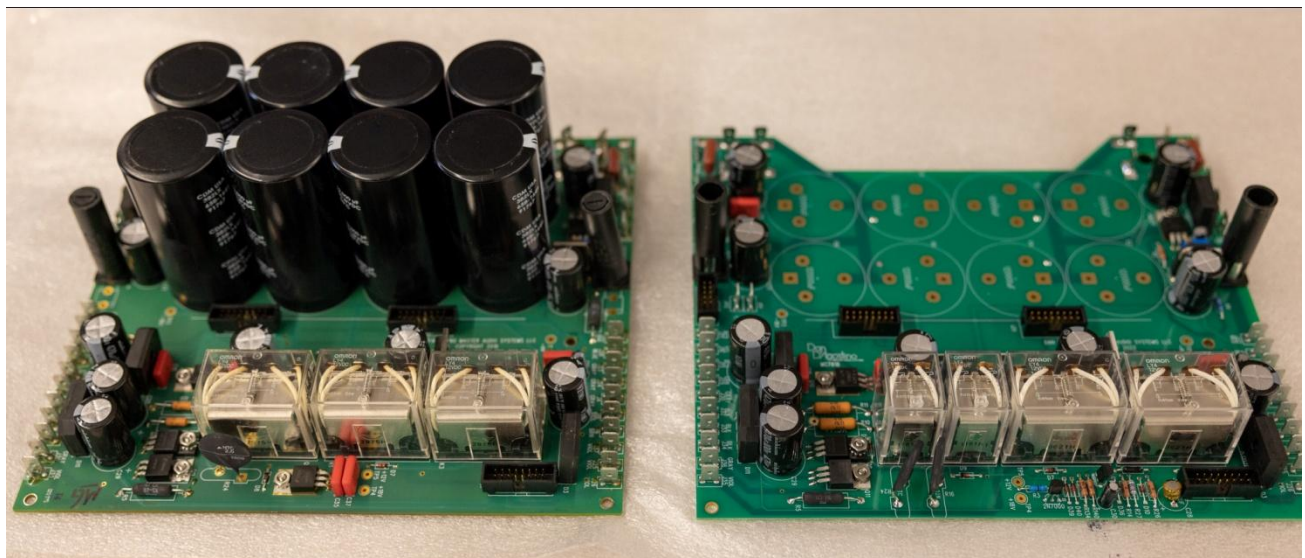


Momentum S250 MXV Power Supply

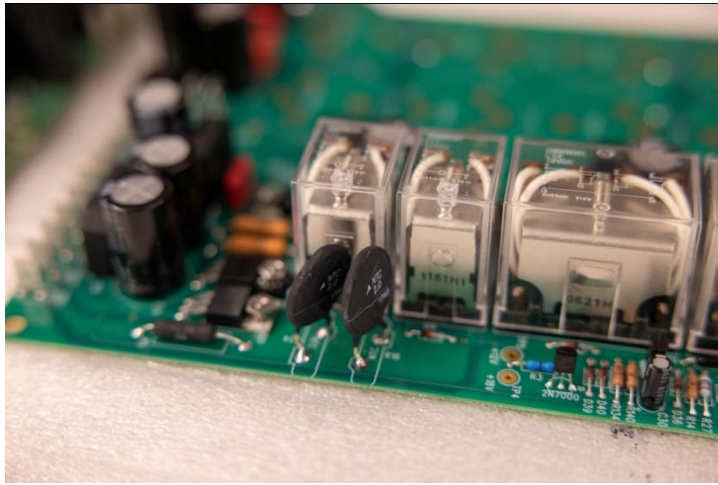
The first thing that goes back in is the updated power supply.

The original Momentum has a thermistor in the power supply for a soft start. In the initial S250 design, the thermistor is in the current path to support a soft start. When you initially turn on your unit, instead of popping your electrical breaker, the thermistor has high resistance. It starts to get hot but quickly reduces resistance as the amplifier powers on. Once the amp runs, resistance is meager, but it's still in the path.

In the updated MXV series, that thermistor is gone and has been removed from the circuit. You get that small amount of missing current back with the thermistor removed. We know how vital every ounce of current is to help generate those massive transients in the music we love.



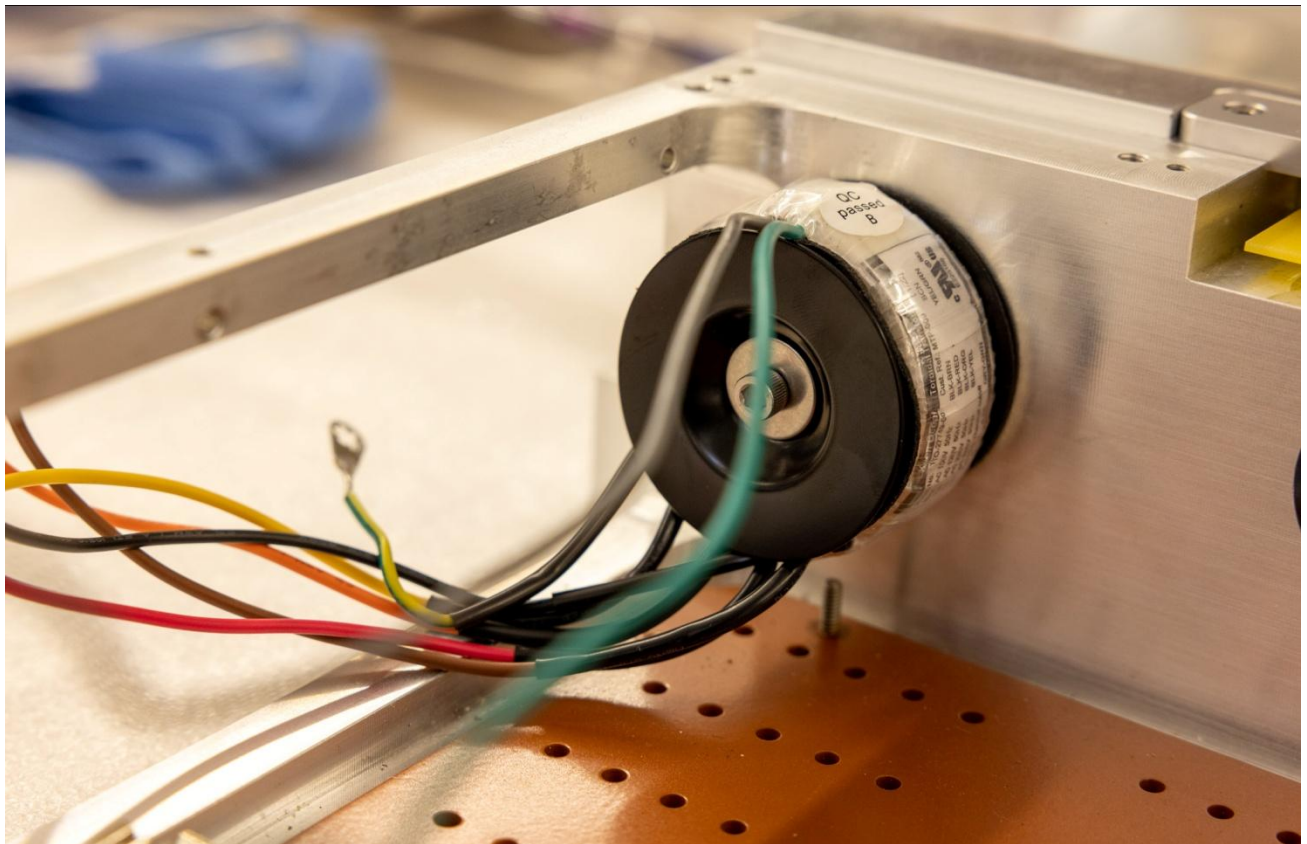
To achieve this, the new power supply uses two relays to handle the current rush when the amplifier is turned on. During power on, the current will rush in, and after a second, the two relays are short and, therefore, no longer exist in the circuit. This allows no additional resistance to be added and provides for an excellent soft start.



Additionally, the protection circuit is more sophisticated and will ensure that the amplifier will shut off if there are any problems. I have never had my Momentum power off for reference in my nine years.

Momentum S250 Transformers

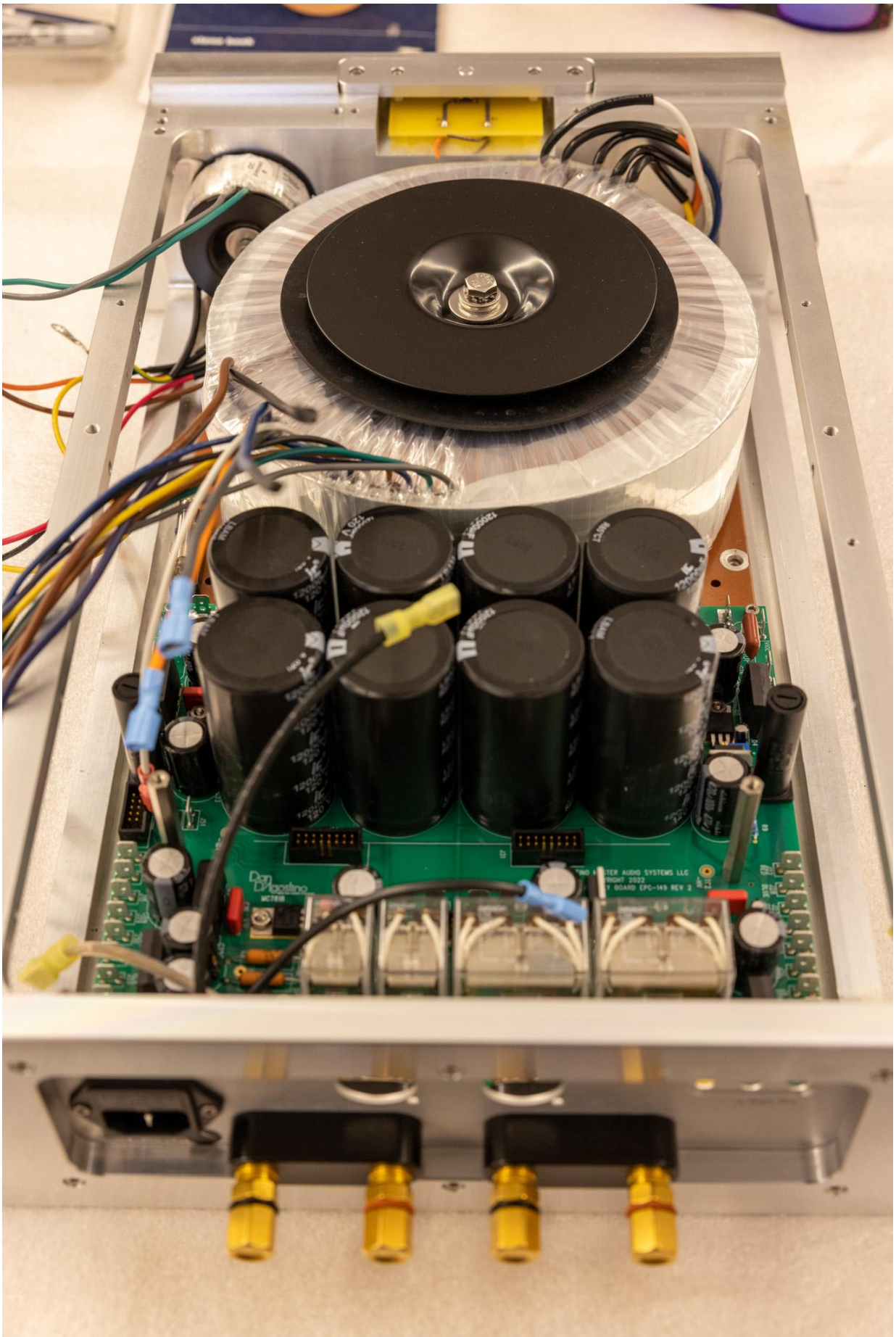
A new main power transformer and the original standby transformer are installed in the unit.



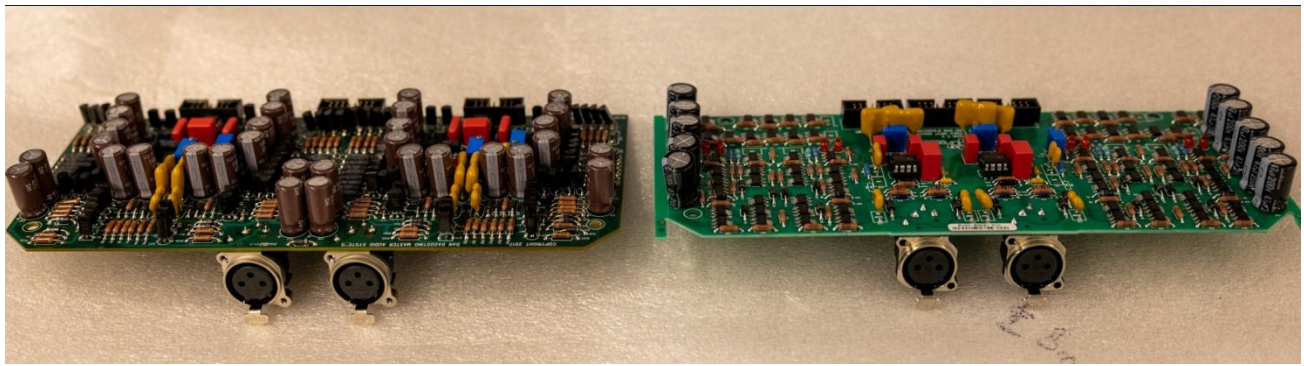
Momentum S250 MXV Input Stage

The updated MXV input cards take cues from the advancements made from the development of the larger Relentless. It sports a new simplified, optimized design requiring fewer parts and an optimized circuit topology like the design used in the Relentless input stage.

Some of the removed components were moved over to the output stage, and introduced some new specialized devices, which are RF transistors working in an audio stage.



Updated Momentum S250 MxV Transformer



Original S250 input stage vs. S250 MxV simplified input stage

Momentum S250 MXV Output Stage & Heatsinks

The output stage is probably the area of most significant innovation in the MxV, as well as the updated Relentless Epic 800 and Relentless Epic 1600.

The new output stage starts with a 4-layer circuit board, a new introduction across the Momentum and Relentless series.



When I asked about the changes to the output stage, Dan explained that some of them are proprietary and he couldn't share too much. He did tell me:

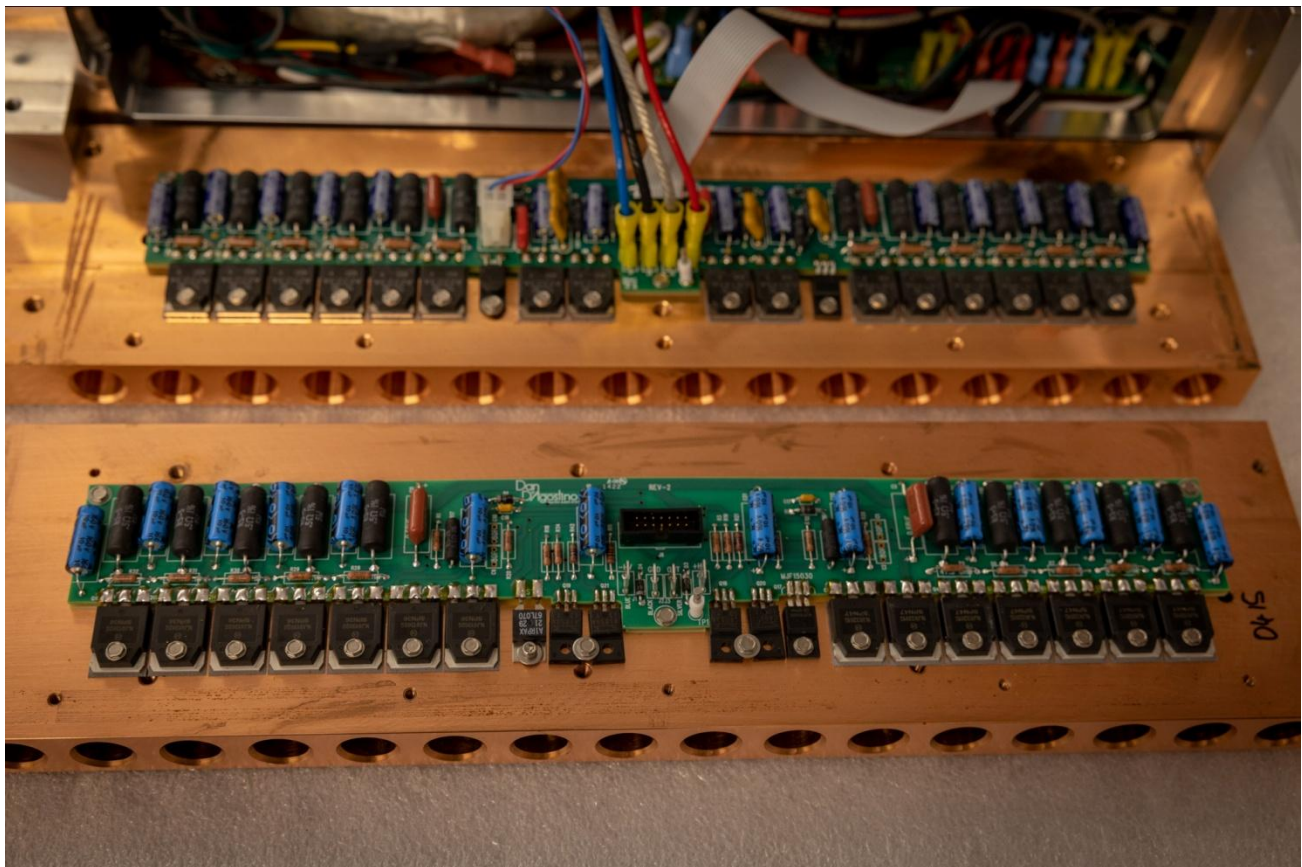
"In terms of the new output stage, let's just say that we have increased to more drivers, faster recovery times, and more control over the output transistors over what we have traditionally done in the past."

D'Agostino also noted:

“The high-output transistors used on the Momentum S250 MxV are among the fastest available. Using 26 on the Momentum S250 MxV amplifiers, they run at a blistering 69 MHz, permitting the Momentum S250 MxV to achieve incredible bandwidth. Each transistor mounts with two stainless steel fasteners—a rarity among flat-package transistors—for maximum thermal transfer to the copper heat sinks. A capacitor/resistor network connected to the base of each transistor ensures stability even at high frequencies and with low-impedance speakers. Additionally, every output transistor is measured, and only devices that match the required performance specifications are included in the production of Momentum S250 MxV amplifiers.”

Lastly, D’Agostino explained that with these changes, thermal tracking is also better in the MxV vs. the original S250.

All these changes result in significant power increases. Although their literature still lists the amplifier at 250 watts at 8 ohms, I think it is safe to say the actual power is closer to 300 watts at 8 ohms.



S250 output stage (top) vs. S250 MxV output stage (bottom)

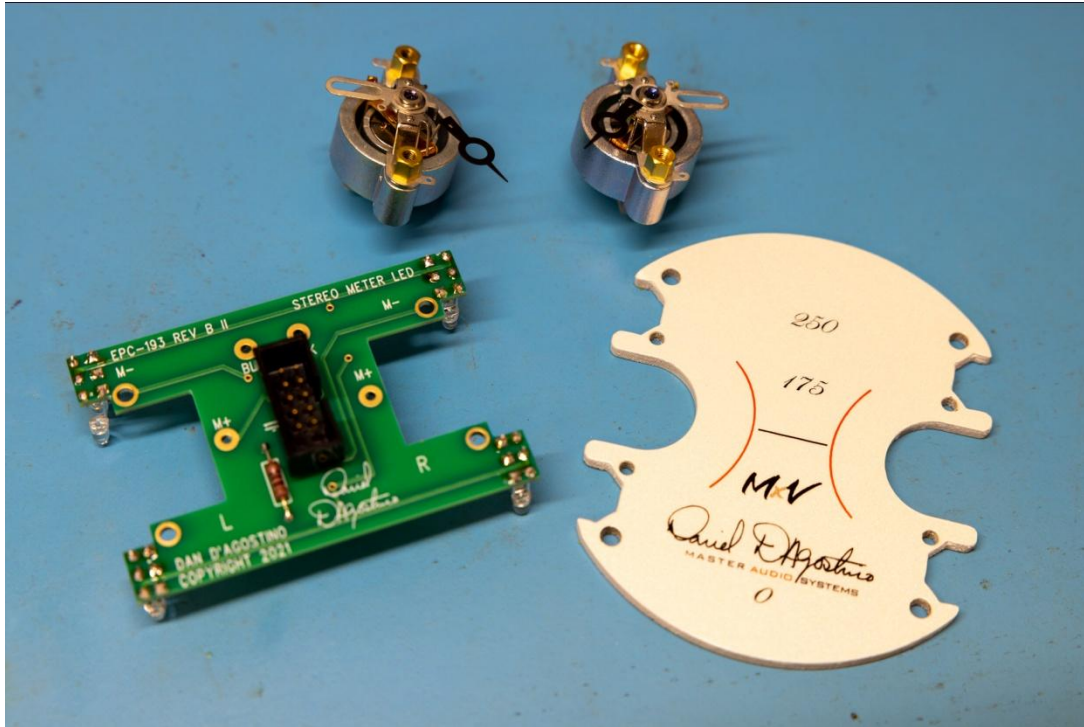
Another online publication measured the M400 MxV Mono could reach 3000 watts into 1 ohm, which is pretty insane. We didn’t participate in that test, so we can’t confirm the results. Testing aside, the S250 MxV generates more power than I could ever consume dancing with my Wilson Audio Alexx V speakers.

Momentum S250 MxV Meters

Who doesn’t love watching the power meter on a piece of equipment swing back and forth as we get gobsmacked with musical energy?

The D'Agostino meters have always looked gorgeous, but my Momentum amplifier never worked as well as I would have enjoyed. Before the new MxV update, the S250 included a sensitivity switch for the front panel meter. It, unfortunately, resulted in the sensitivity being either too low or too high.

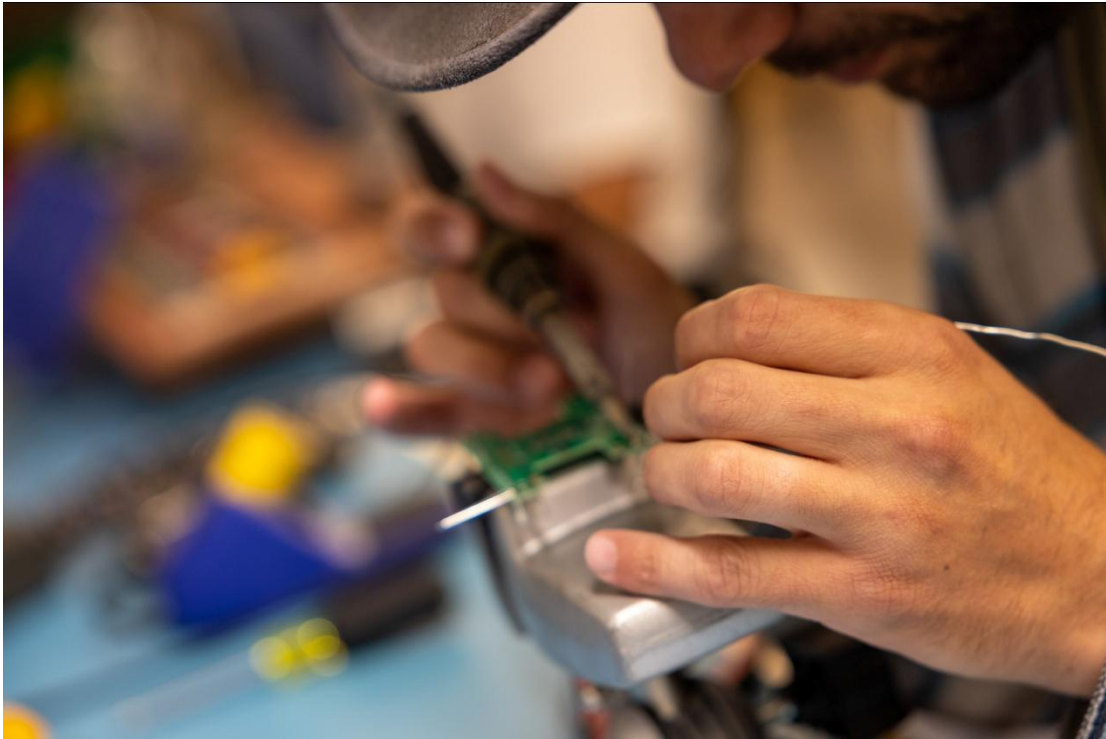
With the MxV update, that sensitivity switch has been removed. Instead, the meter control board here has a new logarithmic-based circuit, resulting in the meters always working no matter the input signal. This is how the meters are also built on the more extensive Relentless series.



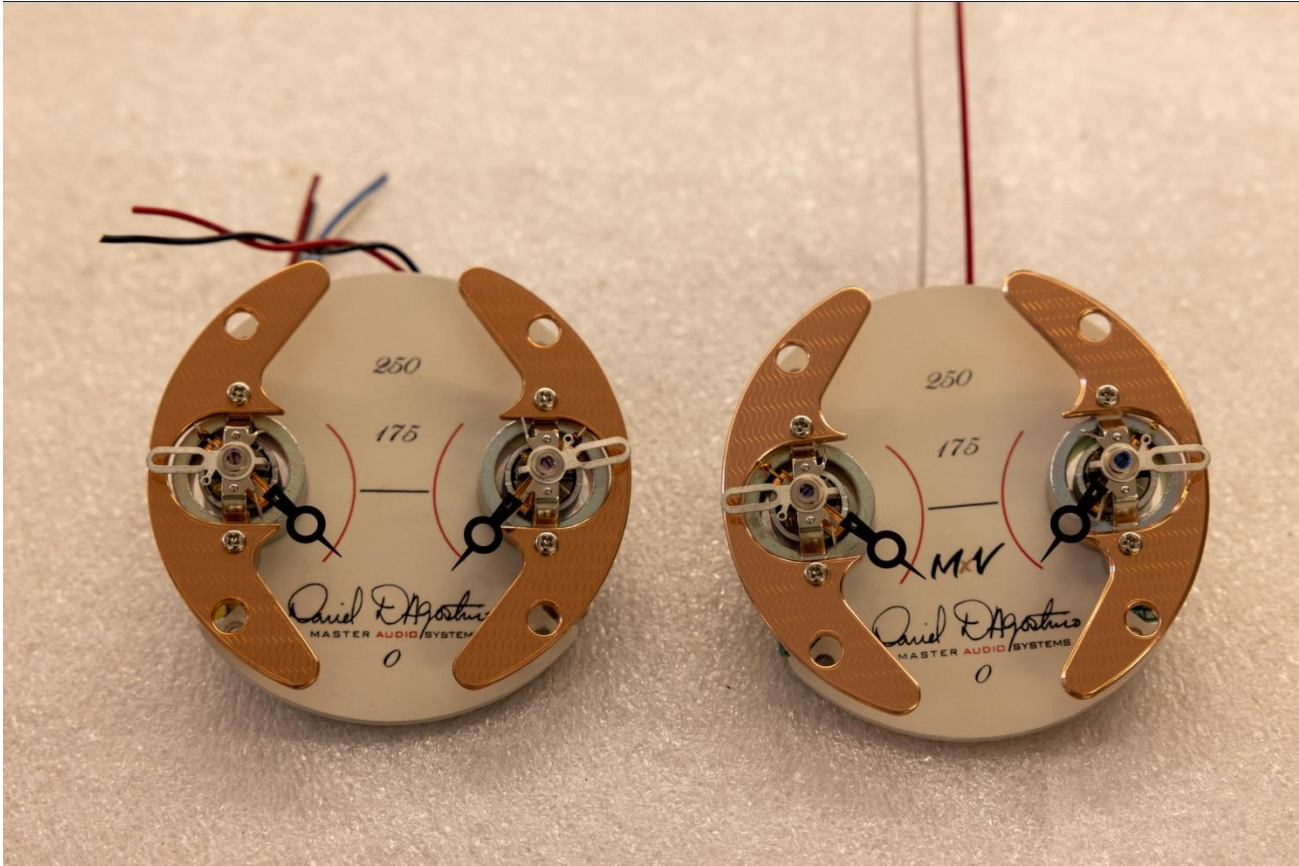
I was hypnotized as we observed them assemble the new MxV meter for my unit.

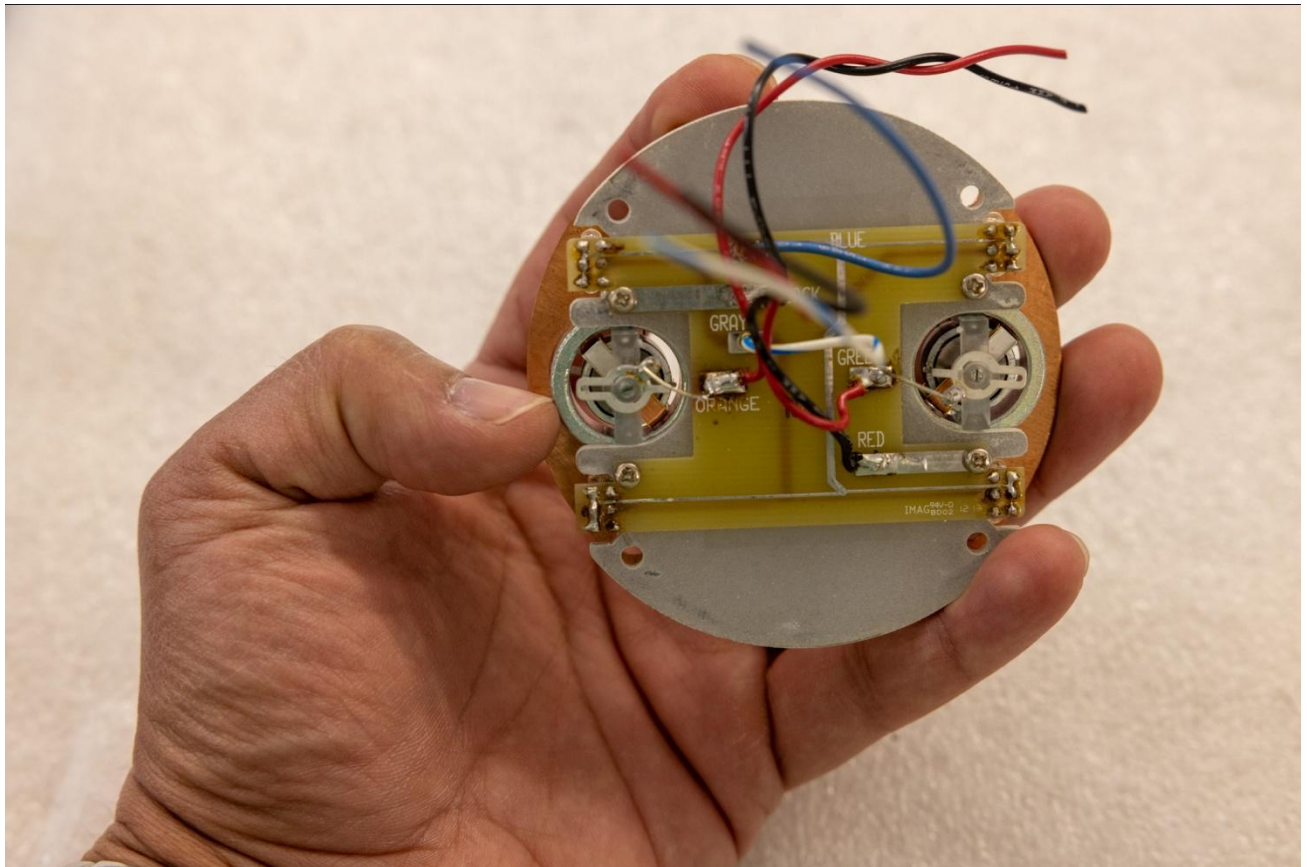
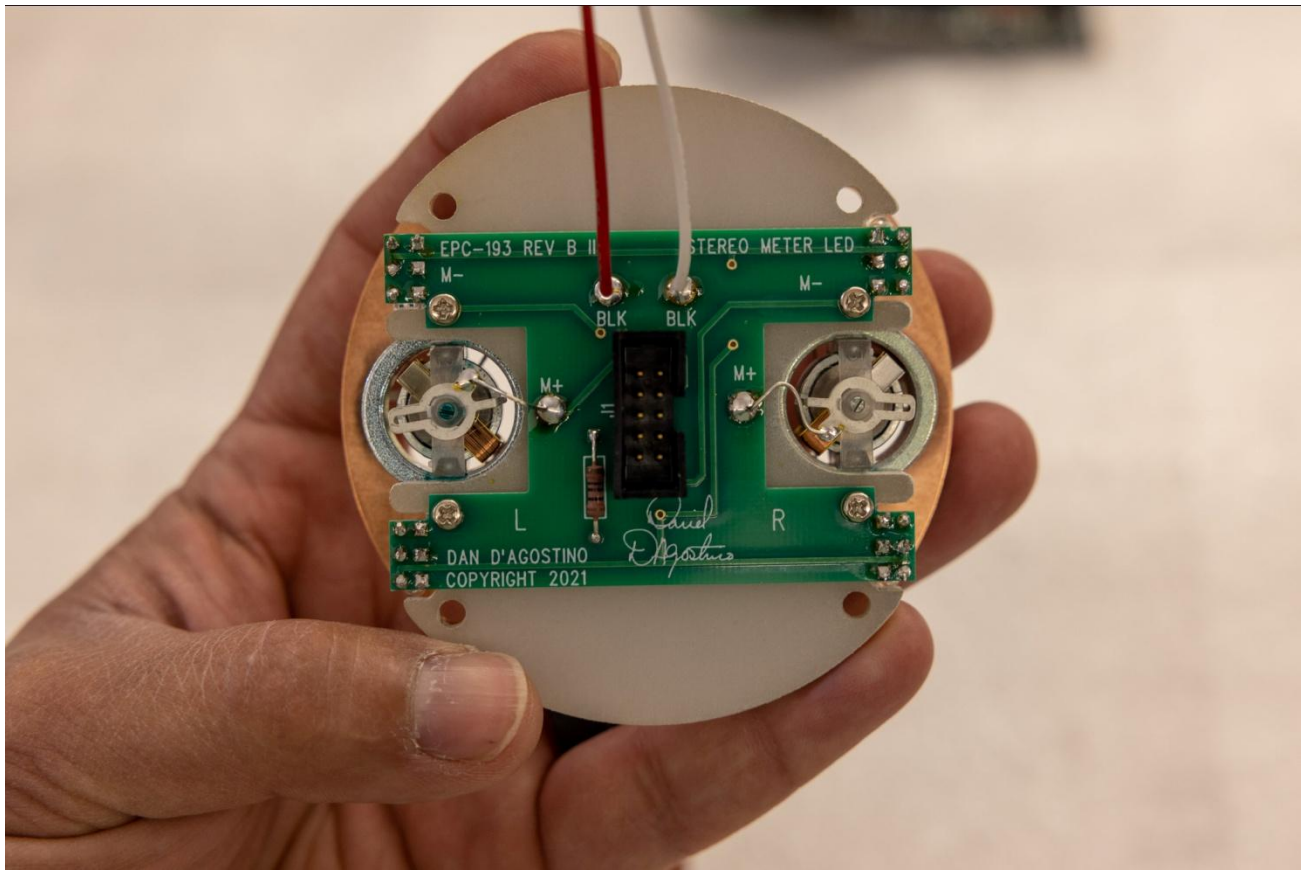


The 12 backlighting LEDs (eight white and four green) were carefully soldered onto the circuit board.

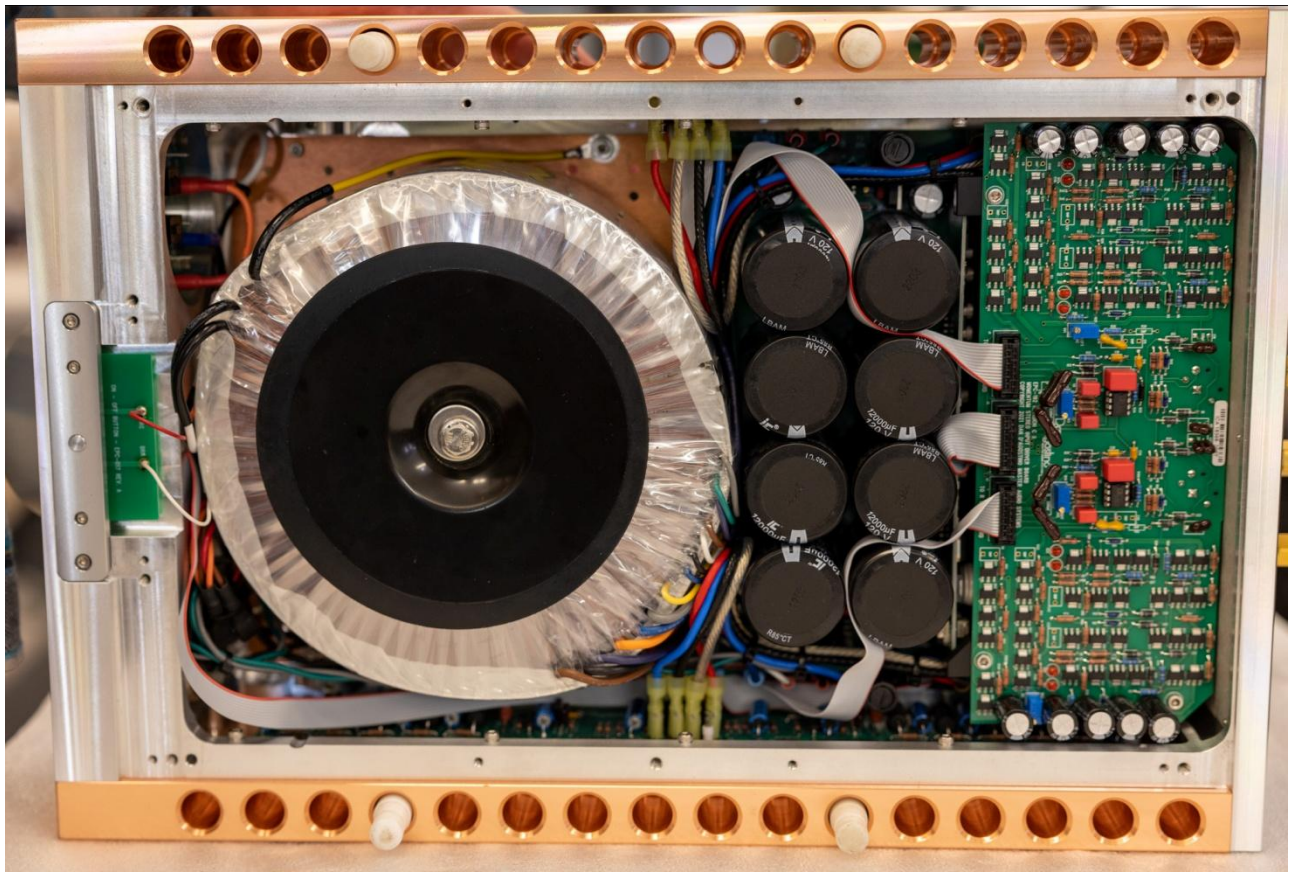


Watching the meter mechanism installed was like following the construction of a beautiful timepiece. The entire process of building the meters for my amplifier was close to an hour.



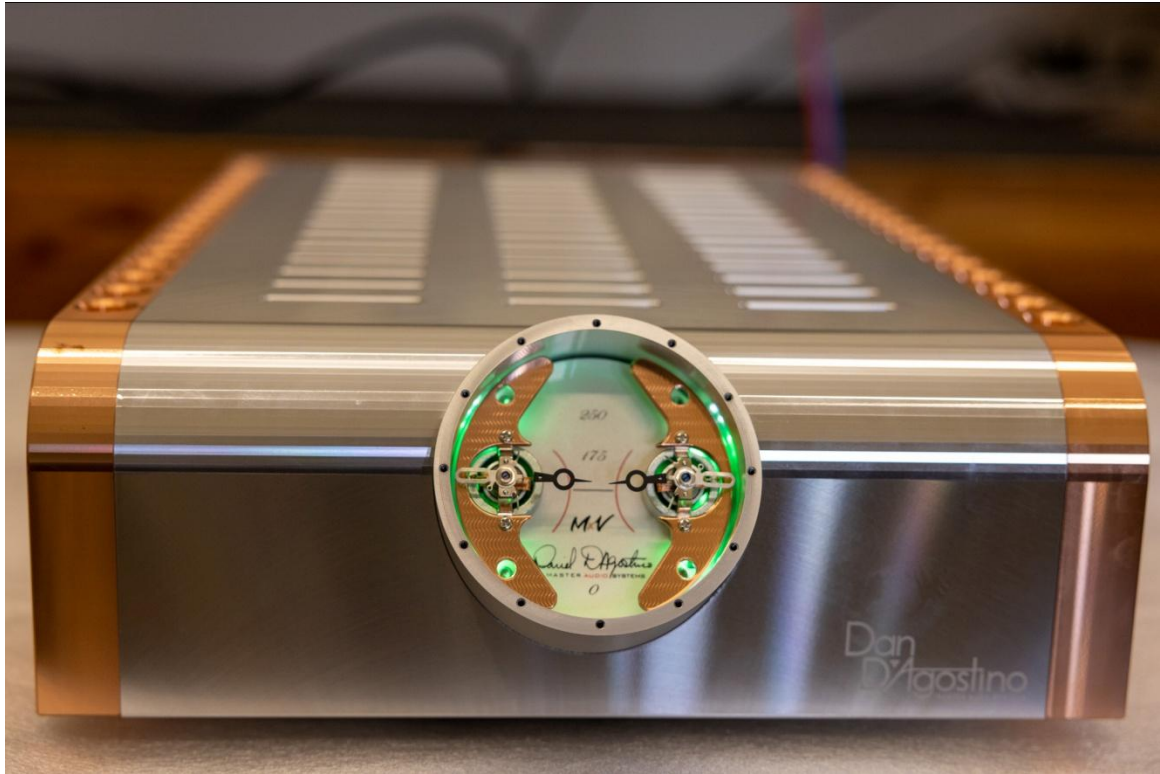


Once the meters are installed, the unit is completely assembled.



Momentum S250 MXV initial turn-on and biasing.

The unit was now ready for its initial turn-on and biasing and was moved to another station where the next craftsman took over. Several tests are run to confirm the unit is working as expected, and biasing is also completed.



From here, the units are moved to another rack and left there for an extended period (days) to burn in.



From here, the unit is moved to a bench connected to a pair of Wilson Audio Sasha speakers for listening tests. These can be run for ½ a day or more to ensure the amplifier is ready to roll.



Final Testing

At this point, the unit is almost done. It moves to the last bench in the factory, where the final testing will be applied, and a final test report will be generated.



D'Agostino's HR Director, Mia keeping a close eye

D'Agostino Momentum S250 MxV vs M400 MxV differences

For customers who decide to purchase the M400 MxV Mono amplifier, everything above is the same, with a small set of exceptions.

The M400 MXV is, first and foremost, a monoblock amplifier, so you have two of everything, including two separate complete chassis.

This results in better separation and additional space that D'Agostino got to take advantage of. The M400 MXV includes a more sophisticated input stage with the availability of some extra space to work with since it only supports a mono channel.

D'Agostino Momentum M250 MxV Listening

I waited anxiously for the Momentum M250 MxV to arrive in Washington. Finally, the call came from FedEx freight, and my unit was dropped off in my garage, securely strapped to a pallet.



Opening the pelican case feels like you are opening your favorite jewelry box. My S250 MxV was back and was ready to be racked again.

Once installed back in my audio rack, my goal was to keep things consistent between the original Momentum S250 and the updated Momentum S250 MxV. To support this, all cabling was kept constant and comprised of an AudioQuest Dragon High Current power cord, and Transparent Reference Opus Generation 6 interconnects. The Speaker cable was a Transparent Reference XL Gen 5.



First Listen

Back in the listening room, I knew what I wanted to hear first.

The listening started around 6 pm, just after dinner. I was in the zone, the eye's closed, and jumping around my favorite Roon playlists like a drunken sailor excited to hear what was different. My wife joined me for portions and concurred with what I listened to that first night as the amplifier broke in.

Connected as before with my Wilson Audio Alexx V loudspeakers, the sound stage grew and was more detailed. It generated a quieter background bringing forward a level of detail I had not heard in my room. One of my favorite attributes of the Wilson Audio Alexx V loudspeaker is that get can rock out at high volume but also draw you in and hold you at low intimate volume levels. I have changed my listening habits to listen at lower volume levels with the Alexx since it can be very engaging. The MxV update seemed to further support this with its dead silent background and ability to extract even more detail. Recordings that I knew well quickly demonstrated the increased sound stage and dynamics.

The improved resolution, dynamics, and perceived improvements to tonality had me wanting to re-listen to tracks that have moved me in the past.

Listening Notes

As I reviewed the Momentum S250 MxV, my dCS Vivaldi was upgraded to the Apex edition. To keep details clear, my listening notes here will be limited to vinyl playback, so the only change in my system being considered is the Momentum S250 MxV.

Playback Source:

Vinyl playback was provided from an **AMG** Viella Forte turntable with a **Lyra** Atlas λ Lambda SL cartridge and Momentum HD Pre-amplifier. This insanely good vinyl reproduction setup has been my mainstay over the last three years.

Platforms and accessory feet:

The S250 MxV was placed on the same **HRS** M3X isolation platform I had used previously. Everything was kept the same.

I kept things this way for about two months and decided to make one change. I found the S250 MxV always sounded better directly on the M3X isolation base, with the previously used HRS Vortex feet to be removed. I loved the Vortex feet on the S250 but didn't feel as excited about them after the upgrade. They seemed to improve some qualities of the S250 but made others worse.

Upon further testing over a long weekend of heavy vinyl rotation, I found that the combination of four **Wilson** Pedestal Feet (heavy ring version) paired with the HRS M3X isolation base brought out the best of the S250 MxV.

I did a blind test with my wife and my daughter of the three combinations: HRS base by itself, HRS Base + Vortex, and HRS Base + Pedestals. I didn't explain what I was changing in the other room and just had them listen. Both preferred the HRS + Pedestal configuration by a long shot.

Esperanza Spalding's "Little Fly" on the Chamber Music Society album



I love this album Esperanza Spalding, released in 2010 as her third solo album. Its dynamic range and detail will crush your tonearm tracking if not correctly set up. The first track, "Little Fly," written by the English poet, William Blake, is a surefire way to get goosebumps. With the addition of the S250 MxV, I felt more detail and the air around Esperanza's smooth voice emanating from the Alexx V's.

It was a perfect summation of the quieter backdrop and extended resolution that the S250 MxV unveiled with so many recordings.

Ray LaMontagne and the Pariah Dogs, "The Love is over" on God Willin' & the Creek Don't Rise album.



The introduction of the Alexx V in my room a few months ago has gotten me to listen at lower levels, relaxed, and yearning to hear little details on a black background. I'll even turn off my HVAC and house fan to make it as quiet as possible. These experiences pull me in and have me yearning to feel like the musicians are in my room, feet away from me. I can sense their heads turning as they sweep across the microphone.

My experience with the S250 MxV upgrade is that it simply supercharges this. Its ability to provide immense detail and tremendous dynamics seems to be a perfect match with the Alexx V. I am sure you would get a similar experience with an Alexia V or even Sasha DAW loudspeakers.

Ray Lamontagne's "Like Rock & Roll and Radio" always puts me at ease. I've listened to it numerous times early in the day with a cup of coffee. I've been listening to it recently and wanted to see how it would change with the introduction of the S250 MxV. As the needle dropped and I sat down, the opening harmonica brought a smile to my face. I was immediately swept away by the tonality of

Ray's voice with the resolution I had not heard previously. Ray was with us, and I could feel every ounce of emotion... as he sang from his heart and chest. Prior experiences were excellent; with the S250 MxV, it was spectacular.

Summary

The Momentum S250 MxV shares minimal with its predecessor. It is an entirely new product inspired by the magnificent Relentless Epic amplifier series.

From the first night of listening to today, I still smile from check to check. My goosebumps are more common, and tears are shed frequently as I remember special memories of the past.

Sometimes upgrades impact certain areas of a product. I can safely say that the scope of the MxV changes has certainly moved all core areas to music reproduction.

The sound stage was tremendous; the unveiling of detail and associated dynamics will ignite and bring out the best in your loudspeakers. Instead of a symphony of audiophile words, I will summarize it as everything, and I mean everything got better. It brings so much of what inspired me in the larger Relentless Epic 800 and Relentless Epic 1600 to a smaller form factor and price point that matched my needs.

Outside of my loudspeaker changes, the Momentum S250 MxV stereo amplifier has had the most significant and profound impact on music reproduction in my room. The combination of Momentum HD Pre-amplifier + Momentum HD Pre-amplifier + Momentum S250 MxV + Wilson Audio Alexx V has created the time machine I yearn for. Drop the needle, close your eyes, and be whisked away to that moment, that venue where the recording happened.

All of this was possible starting with my original investment in the Momentum S200 which was perfectly updated to the latest S250 MxV with no compromises.

If you own a Momentum S250 or M400, run to get your unit in the upgrade queue. If you are considering an amplifier at these price points, this one should be on your shortlist.

The Momentum S250 MxV earns my Review's Choice Award and a spot in Amplifier Buyers Guide.

We aspire to review a Relentless Epic 800 in 2023!

-Mohammed





Pricing

- Momentum S250 MxV Stereo Amplifier – USD 44,950
- Momentum M400 MxV Mono Amplifier – USD 79,950
- Upgrade existing S250 to S250 MXV – USD 10,000
- Upgrade existing M400 to M400 MXV – USD 20,000



Associated Components

- **Wilson Audio** Alexx V Loudspeakers
- **Dan D'Agostino** Momentum Phono Pre-amplifier
- Dan D'Agostino Momentum HD Pre-Amplifier
- Dan D'Agostino Momentum S250 MxV Stereo Amplifier
- dCS Vivaldi APEX DAC, Master Clock & Up sampler
- AMG Viella Forte Turntable with two AMG 12JT Turbo Arms
- Lyra Atlas Lambda SL & Lyra Atlas Lambda Mono cartridges
- HRS M3X Isolation Bases, nimbus couplers, and damping plates
- **Wilson Audio** Pedestals (under all sources, amplifiers, and outboard power supplies)
- **McIntosh** MX100 AV Surround Processor
- Transparent Audio Opus and Magnum Opus Gen 6 Interconnect Cables
- Transparent Audio Gen 5 Reference XL Speaker Cable
- Transparent Audio Opus Gen 6 Balanced Phono cable (Atlas SL)
- AnalogMagik Balanced Phono cable (Atlas Mono)
- **AudioQuest** Niagara 7000 Power Conditioner
- AudioQuest Dragon Power cables
- AudioQuest Ethernet & HDMI cables (Cinnamon and Dragon)
- Nordost QKore 1 & 3 grounding blocks
- Roon Nucleus+ with Synergistic Research Linear Power Supply
- Synergistic Research HFTs in various locations around the room
- **Audio Desk** Systeme Vinyl Cleaner Pro

