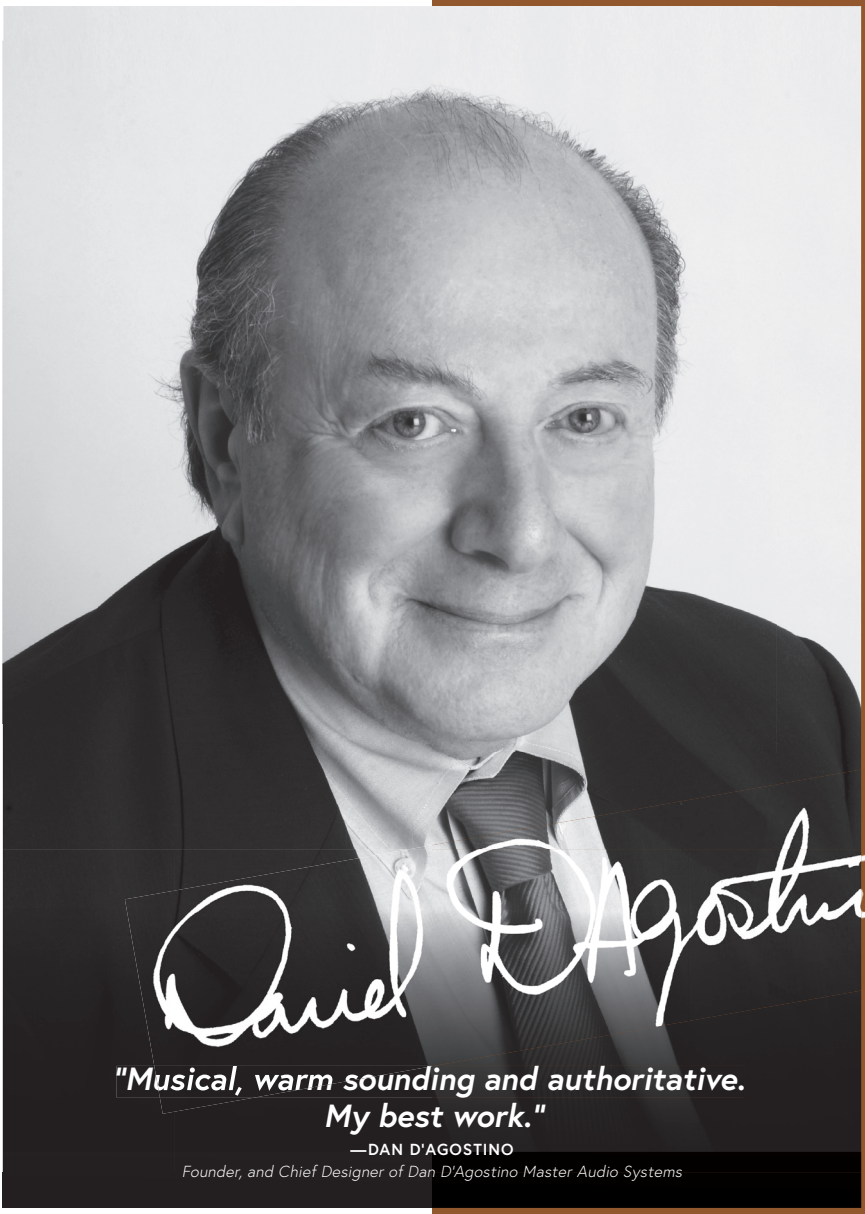
MOMENTUM
M400 MxV MONOBLOCK & S250 MxV STEREO AMPLIFIER

OWNER'S MANUAL

Dan D'Agostino
MASTER AUDIO SYSTEMS



"Musical, warm sounding and authoritative. My best work."

—DAN D'AGOSTINO

Founder, and Chief Designer of Dan D'Agostino Master Audio Systems

Thank you for purchasing the Momentum MxV amplifier. The Momentum amplifiers helped launch our company, and the new MxV models feature new concepts, components, and manufacturing techniques developed and learned throughout the past decade, with new circuits that make these Momentum amplifiers the best sounding ones we have designed and built. As the first products the company developed, the Momentum amplifiers hold a special place in our history. The original versions and the upgrades we released five years later were exceptionally well received by consumers and reviewers alike. However, the nature of our engineering philosophy is to keep pushing forward in an effort to improve our products. The new MxV amplifiers benefit from the work we did for the Relentless Mono Amplifiers. The Relentless Mono Amplifier employs a radically different front-end section in its circuitry, and we have brought this topology to the Momentum MxV amplifiers with amazing results. Those of you with some physics knowledge will recognize that MxV, or Mass times Velocity, is the definition of Momentum.

The Momentum amps have been a special labor of love for me, and after we built the Relentless Mono Amplifier, I knew we could bring some of the Relentless concepts to the Momentum amplifiers. Every major section of the amplifier—power supply, input, driver, and output stages—have all been enhanced in the MxV. A new transformer winding pattern provides over 50% more current output from the same transformer footprint. A reenvisioned input stage combines a brand-new circuit topology with advanced components feeding the driver and output stages. Energizing the driver stage is a new bias stability circuit that provides a nearly 50% increase in operating bias. Increasing Class A operation directly correlates to the improved sound quality of the Momentum MxV amplifiers.

The result is amplifiers that deliver something I wasn't sure was possible: The Momentum M400 MxV and Momentum S250 MxV deliver music with more presence, detail, and leading-edge explosiveness than I ever conceptualized for the Momentum amplifier platform. I hope you agree.

As with all our products, the Momentum MxV amplifiers build on decades of experience designing and manufacturing high-performance audio products. Each incorporates a unique blend of the very best and most advanced parts with the same labor-intensive, hand-crafted construction we have used since the company's inception. Our staff of dedicated craftspeople and technicians work diligently to guarantee that every Momentum MxV amplifier tests and meets the stringent specifications my engineering team have set for electrical, mechanical, and finish criteria.

I hope you find that your Momentum MxV amplifier gives you the best sound quality you've ever experienced in your home. And I hope your eyes enjoy its singular, elegant design and impeccable craftsmanship as much as your ears enjoy hearing it. Thank you again for your support, and I hope you enjoy your new amplifier as much as we enjoyed designing it!

Sincerely,

Dan D'Agostino and the Team from Dan D'Agostino Master Audio Systems

LEGAL NOTIFICATIONS

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CAUTION: NO USER SERVICEABLE PARTS INSIDE. Do not open the amplifier's chassis or remove any of its screws. Contact Dan D'Agostino Master Audio Systems or your dealer if you have service needs.

WARNING: Do not expose this amplifier to moisture or excessive humidity, and do not use it outdoors. Fire hazard may result.

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating maintenance (servicing) instructions in the literature accompanying the appliance.

PACKAGE CONTENTS

If any of the following items are missing, please contact your dealer:

- ✔ 1 Momentum M400 MxV or S250 MxV amplifier encased in protective static-cling vinyl
- ✔ 1 AC power cord
- ✔ 1 single-ended (RCA) to balanced (XLR) adapter connections (1 for M400 MxV, 2 for S250 MxV)
- ✔ 1 owner's manual
- ✔ 1 warranty card
- ✔ 1 pair of white lifting gloves
- ✔ 1 microfiber cleaning cloth

UNPACKING AND INSTALLATION

Unpacking the Momentum MxV amplifier from its packaging

Two adults are recommended for lifting the nearly 100-pound amplifier from its packaging. When the amplifier is still in its case, please move it to a location near the place where it will be installed. Remove all jewelry including watches, rings and belts from your person to avoid damage to the exterior of the amplifier during the removal and installation. Put on the included white lifting gloves to avoid leaving fingerprints on the amplifier's chassis.

NOTE: You may see slight blemishes in the machined metal parts of the Momentum amplifier's chassis. This is a normal and unavoidable artifact of the machining process.

Installation requirements

The surface that will support the Momentum MxV amplifier must be capable of safely supporting the nearly 100-pound weight of the amplifier.

Adequate ventilation must be provided for the amplifier. There should be at least 3 inches of clearance on each side of the amplifier and 3 inches of clearance at the top, and the bottom vents of the amplifier must not be obstructed by thick carpet, dust, etc. We recommend that the amplifier be installed in an open equipment rack or on an amplifier stand to assure proper ventilation. The amplifier may be installed in a closed cabinet in an equipment closet, but the cabinet or closet must be designed with substantial ventilation at top and bottom; active ventilation (i.e., powered fans) is preferred. Do not place the amplifier directly on a carpeted floor.

For best possible sound quality and maximum output, we recommend you connect the Momentum MxV amplifier to a dedicated 15-amp or 20-amp outlet.

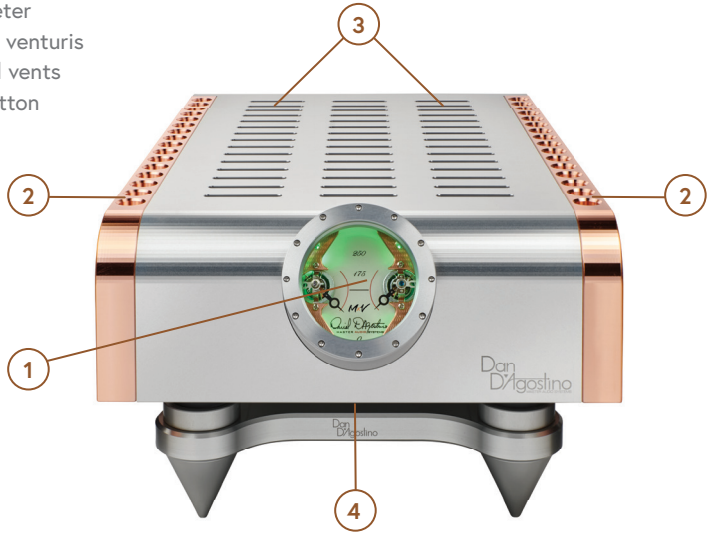
If you need to return the amplifier for service

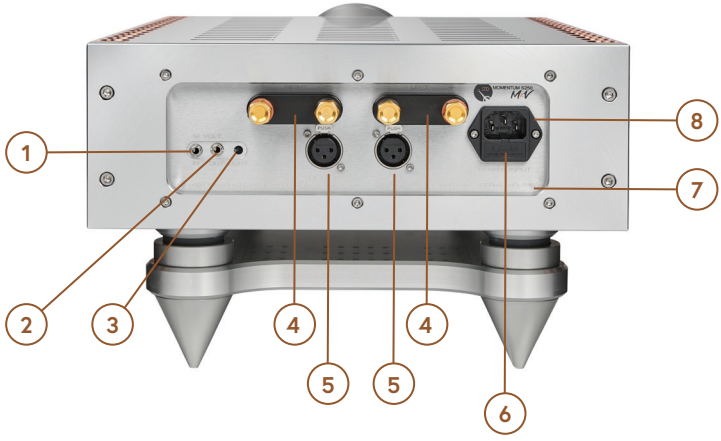
If you should need to send the Momentum MxV amplifier back to us for service, be sure to use the original box and materials for shipment.

Before you ship the amplifier, unplug it from the wall and let it cool down for 6 hours. To protect the finish during shipping, rewrap the amplifier in the vinyl covering it came in. Make sure the amp is completely cool and has not been plugged in for 6 hours before you do this. Wrapping the amplifier when it is warm will cause the vinyl to leech into the amplifier's surface and will permanently damage the finish.

FRONT PANEL

1. Power meter
2. Heat sink venturis
3. Top panel vents
4. Power button





REAR PANEL

1. 12-volt on/off trigger input
2. 12-volt trigger output
3. Three-position toggle switch for power meter brightness
4. Speaker cable binding posts (1 pr for M400 MxV Monoblock)
5. XLR audio inputs (1 for M400 MxV Monoblock)
6. Fuse holder drawer
7. Serial number
8. IEC AC power connector

Momentum S250 MxV Stereo shown with optional amplifier stand

MAKING CONNECTIONS TO THE MOMENTUM MxV AMPLIFIER

Speaker cables

Install the speaker cables first. We recommend the use of high-quality cables terminated with spade or ring lugs that will fit the Momentum MxV amplifier's binding posts. We advise against the use of pin connectors, banana plugs, or bare-wire connections.

Note that the positive (+) binding post has a red ring and the negative (–) binding post has a black ring. Double check to confirm that you are connecting your speaker cable's conductors to the appropriate binding posts—red to positive, black to negative. If your cables are marked to show desired signal flow, orient the cable so that the installation conforms to the cable manufacturer's instructions.

To install speaker cables tipped with spade lugs or rings, carefully loosen each speaker binding post. Turn counter-clockwise to loosen. If using spade lugs, insert each spade lug so that its two tines straddle the binding post, then tighten the binding post nut. If using rings, remove the binding post nut, place the ring on the binding post, then replace the nut and tighten it securely.

A firm connection, tight enough that the spade lug or ring cannot move, is all that's needed. Overtightening could damage the binding posts. Do not use a conventional wrench to tighten the binding posts. Be sure the wires are not in contact with one another.

Interconnect cables

We recommend the use of high-quality balanced XLR audio interconnect cables with the Momentum MxV amplifier. If your preamp does not offer XLR output, use the high-quality RCA-to-XLR adapters provided with the Momentum MxV amplifier.

Connect the XLR cables to the inputs by pushing the cables onto the jacks. To release the XLR cable, push on the small tab on the end of the jack then grasp the cable by the plug and gently pull it out. Never grasp interconnect cables by the cable itself—you could damage the cable.

AC cord

The Momentum MxV amplifier is supplied with a high-quality AC cord tipped with a 15-amp IEC connector at the amplifier end and a three-conductor AC plug at the other end. You may use a different power cord with the Momentum MxV amplifier if you wish, as long as it is tipped with a 15-amp IEC connector and a three-conductor AC plug.

After the speaker and interconnect cables are connected, push the IEC connector on the power cord into the IEC jack on the Momentum MxV amplifier.

250
175
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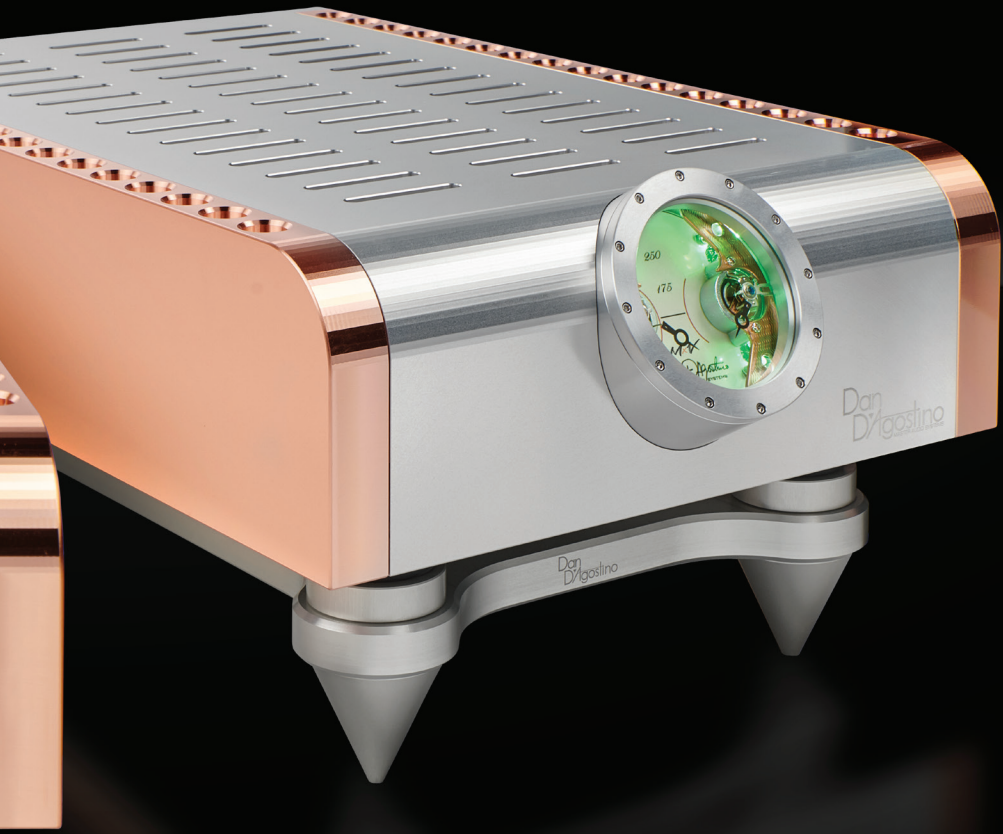

Momentum S250 MxV Stereo
shown with optional amplifier stand

OPERATION

Initial power-up of the amplifier

The power button is located on the front underside edge of the amplifier. Pressing the button will power up the amplifier and illuminate the power meter.

After power is switched on, the Momentum MxV amplifier requires approximately 30 minutes to reach optimal operating temperature. Although the amplifier will sound excellent upon initial listening, the sound quality will improve as it warms up, much as the flavor of a fine red wine improves if it is allowed to breathe for a few minutes.

During operation

The Momentum MxV amplifier requires no adjustments during normal operation. If there is no sound or the sound quality is in some way impaired, consult the "Troubleshooting" section.

Power meter setting

Brightness switch: This switch has three positions. Move it to the left (when looking at the amp from the rear) for high brightness and to the right for low brightness. In the center position the light is off.

MAINTENANCE

The Momentum MxV amplifier requires no user maintenance other than to keep it clean and ensure that the vents remain unobstructed.

To clean the amplifier, first disconnect the AC plug. Do not use polish or cleaners on the Momentum MxV chassis. Use the supplied high-performance 3M microfiber cloth and gently wipe the amplifier's surface to remove dust. Do not use a circular motion. You can lightly moisten the cloth with distilled water if necessary to remove fingerprints. A normal dusting cloth will not scratch the surface, but any stitching on the edges of the cloth could scratch the surface of you apply strong pressure.

If dust or other contaminants or objects collect around the heat sink venturis or the vents at the top and bottom of the amplifier, remove small objects by hand and use a shop vacuum or hand vacuum to remove the dust. Use a brush attachment on the vacuum to avoid scratching the amplifier's surface.

TROUBLESHOOTING

Amplifier will not power up

If the front meter is not illuminated, follow the procedure outlined below. If one step succeeds in activating the power, stop there and ignore the other steps.

1. Push the power switch on the front underside edge of the amplifier.
2. Check to make sure the AC cord is plugged into the wall outlet.
3. Check at the back of the amplifier to make sure the 15-amp IEC connector is pushed all the way into the jack on the back of the amplifier.
4. Check to see that the fuse is blown. Replace with same type and rating only. (In the U.S., use only a 10 amp, slow-blow fuse.)
5. Check your household electrical box to make sure the circuit breaker has not been tripped. If it has, flip the breaker back on.
6. If the breaker trips again, check the speaker cable connection on the amplifier and the speaker to make sure that the terminals are not shorted, and check the entire length of the cable to ensure there has been no damage to it.
7. If all of these steps fail to return power to the amplifier, consult your dealer for service.

Front meter is illuminated but you hear no sound

Follow these steps in order. If one step succeeds in restoring the sound, stop there and ignore the other steps.

1. Check your preamp and source device to make sure they are both turned on.
2. Check the source device to make sure it is playing, i.e., if it's a record player, make sure it's spinning and the tonearm is lowered, or if it's a CD player, make sure it's in play mode and not in pause.
3. Make sure your preamp is not muted and that the desired source is selected.
4. Check the line-level connections between the source device and the preamp, and between the preamp and the amplifier. Reconnect any cables that may have become disconnected.
5. Check the cables between the amplifier and the speakers to make sure they are properly connected and that the cables have not become damaged.
6. If you have a spare pair of interconnect cables (even cheap ones will work temporarily), try using them instead of the interconnect cables between the source device and the preamp and between the preamp and the amplifier. If this restores sound, replace the defective cables.
7. If all of these steps fail to restore sound, consult your dealer for service.

Sound comes from only one channel

Follow the below steps in order. If one of these fixes the problem, stop there and ignore the others.

1. Check to make sure the power meter on the amplifier is illuminated. If the amplifier's meter is not illuminated, follow the troubleshooting steps under "Amplifier will not power up" to restore power to that amplifier.
2. Check speaker cable connections for the malfunctioning channel. Reconnect any cables that may have become disconnected. Inspect the cable to make sure it has not been damaged. If it has been damaged, replace it.
3. Swap the left-channel interconnect cable from the preamp to the amplifier with the right-channel interconnect cable. If the malfunctioning channel now works but the other channel does not, replace the defective interconnect cable with one of the exact same type. You may have to replace both cables to make sure they match.
4. Swap the left-channel interconnect cable from the source device to the preamp with the right-channel interconnect cable. If the malfunctioning channel now works but the other channel does not, replace the defective interconnect cable with one of the exact same type. You may have to replace both cables to make sure they match.
5. Try using a different source device. If the alternate source device delivers sound in both channels, it is likely the original source device is defective. Consult the manufacturer of that source device or your dealer for further information.
6. If possible, try using a different preamp. If the alternate preamp delivers sound in both channels, it is likely the original preamp is defective. Consult the manufacturer of the preamp or your dealer for further information.
7. If all of these steps fail to restore sound, consult your dealer for service.

Sound seems unclear or unfocused

Follow the below steps in order. If one of these fixes the problem, stop there and ignore the others.

1. Play a CD (not a record) of a vocalist and sit in your usual listening position, which should be equidistant from each speaker and typically 8 to 15 feet away from them. If the vocal image appears centered between the speakers, they are connected correctly and your system is probably operating properly.
2. If the vocal image is unfocused and seems to come from all over the room, your speakers are probably wired out of phase. Make sure that the speaker cables are connected correctly. The cable connector marked + or colored red should be connected to the speaker binding post with the red ring. The cable connector marked – or colored black should be connected to the speaker binding post with the black ring.
3. If the sound is still unclear or unfocused, consult your dealer. Your system may have a setup problem outside the scope of this manual.

Momentum M400 MxV Monoblock shown with optional amplifier stand

MOMENTUM MxV AMPLIFIER LIMITED WARRANTY

D'Agostino LLC warrants the Momentum MxV amplifier against manufacturing defects and defects in materials for five years from the date of retail purchase or six years from the original date of manufacture from an authorized Dan D'Agostino Master Audio Systems dealer, subject to the conditions listed below:

1. The warranty covers only new products purchased from an authorized D'Agostino LLC dealer.
2. The warranty is non-transferable and is valid only for the original purchaser.
3. The warranty is valid only if the product has been used according to the instructions in the owner's manual. Damage due to accidents or owner abuse or neglect is not covered under this warranty.
4. All service must be performed by an authorized Dan D'Agostino Master Audio Systems dealer. Damage resulting from service by other parties is not covered under this warranty.
5. All products returned for service must be packaged in the original container and must include a photocopy of the original purchase receipt. If the original container has been lost or discarded, contact D'Agostino LLC for a replacement.
6. If the product must be shipped back to D'Agostino LLC for warranty service, the customer shall pay shipping costs. D'Agostino LLC will pay for return shipping.
7. Before shipping the product to D'Agostino LLC for service, the customer must first obtain a Return Authorization (RA) number by calling D'Agostino LLC. The RA number must be marked clearly on the side of the package.
8. This warranty covers only defects in products made by D'Agostino LLC. It does not cover incidental or consequential damages, or damages to other products resulting from defects in D'Agostino LLC products.
9. Metal and metal finishing have natural variations in color, gloss, and texture. Variations in these characteristics are not considered defects and are not covered by warranty.
10. U.S. residents: Depending on which state you live in, you may have other rights not elaborated in this document. For further information, contact D'Agostino LLC.
11. Residents of other countries: Your authorized importer or dealer bears the direct responsibility for warranty coverage of your amplifier. Please contact your importer or dealer with requests for service under warranty. D'Agostino LLC will work with your importer or dealer to assure that the terms of the warranty are fulfilled.

It is important that you register your Momentum MxV amplifier with us online.

Please visit www.dandagostino.com to register your product. For questions on warranty and service matters, contact Dan D'Agostino Master Audio Systems at: +1.480.575.3069 or service@dandagostino.com

SPECIFICATIONS

	M400 MxV Monoblock	S250 MxV Stereo
Finish	Silver Black Custom finishes available upon request	Silver Black Custom finishes available upon request
Power Output	400 watts @ 8Ω 800 watts @ 4Ω 1,600 watts @ 2Ω	250 watts @ 8Ω 500 watts @ 4Ω 1,000 watts @ 2Ω
Frequency Response	1 Hz to 200 kHz, -1 dB 20Hz to 20 kHz, ±0.1 dB	1 Hz to 200 kHz, -1 dB 20Hz to 20 kHz, ±0.1 dB
Distortion	400 watts @ 8Ω 0.1% @ 1 kHz	250 watts @ 8Ω 0.1% @ 1 kHz
Signal-to-Noise Ratio	105 dB, unweighted	105 dB, unweighted
Input	1 balanced XLR	1 pr balanced XLR
Input Impedance	1 MΩ	1 MΩ
Output Impedance	0.12Ω	0.12Ω
Dimensions (WxHxD)	12.5 x 5.25 x 21.5 in 31.75 x 13.3 x 53.5 cm	12.5 x 5.25 x 21.5 in 31.75 x 13.3 x 53.5 cm
Weight	95 lbs / 43 kg	95 lbs / 43 kg

Handmade and built by hand in the USA using USA machinists, vendors and parts procurement.

For more information about Dan D'Agostino Master Audio Systems,
please visit: www.dandagostino.com

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