

# RELENTLESS 800 MONOBLOCK AMPLIFIER



## AN UNRELENTING STANDARD

Dan D'Agostino Master Audio Systems set the standard for amplifier performance with the Relentless Epic 1600 Monoblock Amplifier. Now, the Relentless Series expands its reach with the Relentless 800 Monoblock Amplifier. Every major section of the Relentless Epic 1600 has been incorporated into the Relentless 800, whose design is further enhanced by new power management topology that isolates the power supply from the entire audio circuitry, providing extra protection from noise generated by the amplifier's massive power transformers.

## ADVANCED TOPOLOGY, UNCOMPROMISING PERFORMANCE

The Relentless 800 Monoblock Amplifier employs all-new, fully complementary topology based around a precision input stage that maintains a perfect balance between the positive and negative components of the signal. Gain circuits operate in the current domain, assuring that performance does not fluctuate, regardless of speaker demand. New input stage devices deliver a 300% increase in current as compared to the devices previously employed. These wider-bandwidth, higher-power components extend low- and high-frequency performance with reduced distortion. Global negative feedback is not required, as the amplifier's open-loop linearity eliminates the need for this performance-robbing technique. Crucial to the new circuit are the bipolar transistors powering the front end. Activating the driver stage is a new bias stability circuit providing a nearly 50% increase in operating bias. Increasing Class A operation directly correlates to better sound quality. The new bias scheme ensures bias consistency, preventing excessive temperatures even under the greatest demand. Additional regulation circuitry prevents any AC power anomalies from upsetting the amplifier's input circuitry.

## STANDARD-SETTING OUTPUT STAGE

A critical element of any amplifier output topology is the driver section, and here, the driver transistor has been upgraded to a new device that handles 33% more power per device. Additionally, the driver transistor count has doubled, minimizing demand on each device and lowering overall amplifier output impedance without resorting to global negative feedback. Individual transistors are used for the positive and negative signal elements, nearly doubling the current drive necessary to maximize the enhanced output stage. The output stage features the same new transistor used in the driver section for sonic and technical consistency. Individual, complementary pairs undergo our transistor matching protocol to ensure that gain linearity is virtually identical from 50mA to 5A. Each of

the 84 high-output transistors, among the fastest available, is mounted 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 guarantees stability, even at high frequencies and with low-impedance speakers. As with all Dan D'Agostino Master Audio Systems components, the Relentless 800 features discrete, direct-coupled, balanced circuitry—the most accurate circuit platform possible.

### IMPOSING POWER AND FORM

With its dual-transformer, dual-rectification transformer arrangement and 400,000  $\mu\text{F}$  capacitance power supply feeding 84 output devices, the Relentless 800 easily delivers 800 watts into  $8\Omega$ —and when connected to a 220-volt outlet, it doubles its output to 1,600 watts into  $4\Omega$  and 3,200 watts into  $2\Omega$ . A special holder mechanically grounds each capacitor, eliminating vibrations. A slow-start circuit activates the power supply in stages, eliminating concerns about capacitive in-rush tripping circuit breakers. D'Agostino's exclusive Super Rail concept employs higher voltage rails in the sections prior to the output stage, effectively "turbocharging" the amplifier and exploiting the full capability of the output voltage rails—which improves dynamics, lowers distortion, and tightens the amplifier's electrical grip on the speaker. The unique heat sink design combines copper and aluminum in a thermal engine that wicks away heat from the connected output devices, ensuring safe and reliable operation even when delivering full-rated power. Thermal, short-circuit, and DC protection are a non-invasive but comprehensive defense against external system faults.

The entire chassis of the Relentless 800 is machined from solid aluminum for superior shielding, thermal stability, and vibration damping. High-precision milling allows the entire chassis to fit together solidly, with no visible fasteners. Each Relentless 800 Mono Amplifier is hand-built and individually tested in D'Agostino's Arizona factory by our team of technicians and craftsmen.

### SPECIFICATIONS

Frequency Response	20 Hz to 20 kHz, $\pm 0.1$ dB
Signal-to-Noise Ratio	113 dB, wideband, unweighted, ref. to full power output 80 dB, A weighted
Input Impedance	120 M $\Omega$
Power Output	800 watts @ $8\Omega$ / 1,600 watts @ $4\Omega$ / 3,200 watts @ $2\Omega$
Distortion	800 watts @ $8\Omega$ 0.1% @ 1 kHz
Inputs	1 balanced XLR
Outputs	1 pr Speaker Binding Post
Dimensions	21.6 x 10.4 x 26.0 in / 54.9 x 26.4 x 66.0 cm
Weight	320 lb / 145 kg
Finish	Silver / Black / Custom finishes

