
aragon

ARAGON HISTORY

In 1987 the first Aragon amplifier, the 4004, was introduced to the world and the **history of sound** reproduction was changed forever. The **reputation** of Aragon grew rapidly within the industry, particularly among state of the art speaker manufacturers. The only amplifiers that could **properly amplify** speakers of varying impedance loads were very few and very expensive. Most amplifiers could only handle a limited impedance load. Therefore, speaker designs were restricted to the limited loads these amplifiers could handle.

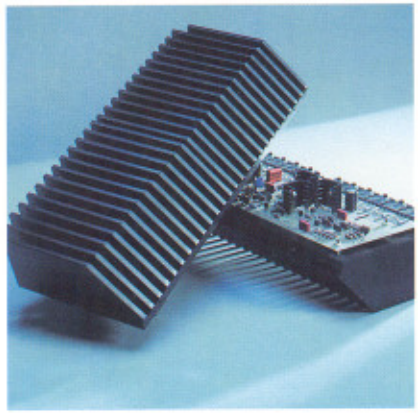
The Aragon 4004 allowed speaker engineers to use any impedance load they wanted. For the **first time in history**, reasonably priced loudspeakers could be created where the only design concern is **quality of sound reproduction**. Speaker manufacturers purchased Aragon amplifiers, designed with a new found freedom and significantly **advanced the art** of sound reproduction.

A few years later, Aragon again took its place in history. Never in history have museums been able to allow visitors the privilege of hearing the precious instruments in their collection. The instruments were **on display** and could be seen, but they could not come alive. **Museum** curators discovered that with an Aragon system consisting of the D2A digital to analog converter, 24k preamplifier and 4004 amplifier the subtle **nuances of the instruments** could be easily discerned.

Now visitors can not only see the differences between the several Stradivarius violins, but actually **hear the differences**. Although we are honored by this distinguished past, it is time for us to proudly move our tradition forward.

Quality—A Part of Our Tradition

In today's world, it appears that 'quality' has become a mere marketing slogan. However, to us, **quality is a way of life**. The new Aragon Collection continues in **our tradition** of quality.



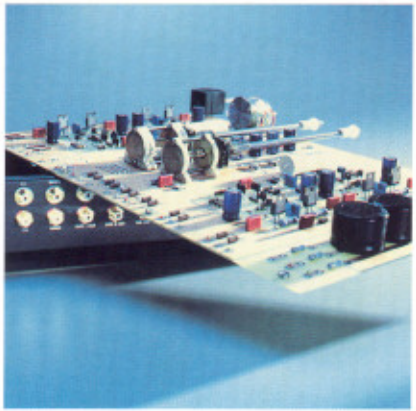
We understand that quality is not based upon a glowing review in a magazine, that is someone's preference not quality. Preferences can change day to day, quality does not. Quality is not based upon an aspect of the design. Every aspect of the design and engineering must be based upon the **commitment to quality**. Even the smallest of parts has the utmost significance. Each part that makes up the whole must share in the commitment or the weakest link will cause the demise of this chain of quality. Without this attention to quality in **every detail** it is impossible to attain the most **accurate reproduction** of the music. Sound quality cannot be achieved without overall quality.

Take the simple resistor. Other companies are content to use 1% metal film resistors. However, the **tight tolerance** of 1% was measured at a particular time and day. The resistor was within 1% tolerance based upon the climactic conditions that existed at that location at that time. Change the amount of humidity in the air and the tolerance of the resistor will change. Aragon utilizes only **epoxy sealed resistors** to insure that they will exhibit the same 1% tolerance under any and all climatic conditions.

QUALITY—A PART OF OUR TRADITION

This insures that every Aragon will **perform at its peak** at any location in the world on any day. This is why military and medical component specifications require the use of these precise epoxy sealed resistors.

Every transistor in every Aragon is **precisely matched**. The matching allows several transistors in the circuit to **act as a single transistor**, increasing the operating precision under even the most strenuous conditions. This matching is also required in many military and medical specifications for the same reason.



All contact points are plated in precious metal to insure the absolute highest conductivity. **Silver, gold** or **palladium** are used at all contact points depending upon the electrical and wear requirements. For example, all the switch contacts that a signal passes through, are plated with silver because of this metal's **high conductivity** and hardness as compared to gold. The switches allow for only ±10% change in resistance after **one million throws** of the switch. As our other parts, these switches conform to military and **medical specifications**.

The wire in the signal path of every Aragon is silver composite jacketed with **Teflon**™. Although Teflon is exceptionally difficult to use in manufacturing, it provides the **best dielectric** properties of any material known to man. This is why Teflon jacketed wire is in the most demanding military and medical components.

QUALITY — A PART OF OUR TRADITION

These highly advanced and tight tolerance components are mounted in a **solid glass epoxy circuit board** coated with **oxygen free copper** for both signal path and the ground plane conductors. The copper goes through each hole where the component leads are inserted to **insure positive contact**. The soldering of the components to these boards is done by the **continuous wave process**. Unlike hand soldering, it assures that no part is exposed to excessive heat which would diminish its performance.

The human endeavor, the striving for quality, that is found in the engineering is also found in the fabrication. All Aragon components are **totally handcrafted**. Chassis are finished by hand. The panels are made of aluminum and steel. The aluminum, some **panels 3/4" thick**, is finished by hand then black anodized. The steel panels are **hand painted**. All knobs are machined from bars of **solid aluminum**, polished and anodized. In keeping with the Aragon philosophy, that even the smallest of parts contributes to the **quality of the whole**, only machine screws are used. These are the same type of screws found in the finest of watches. The chassis holes for the screws are machined, not merely punched. This allows them to be counter bored to the exact diameter of the screw heads, allowing the screws to **fit flush** with the chassis panel. Our attention to detail is that complete.

8000 Series Amplifiers

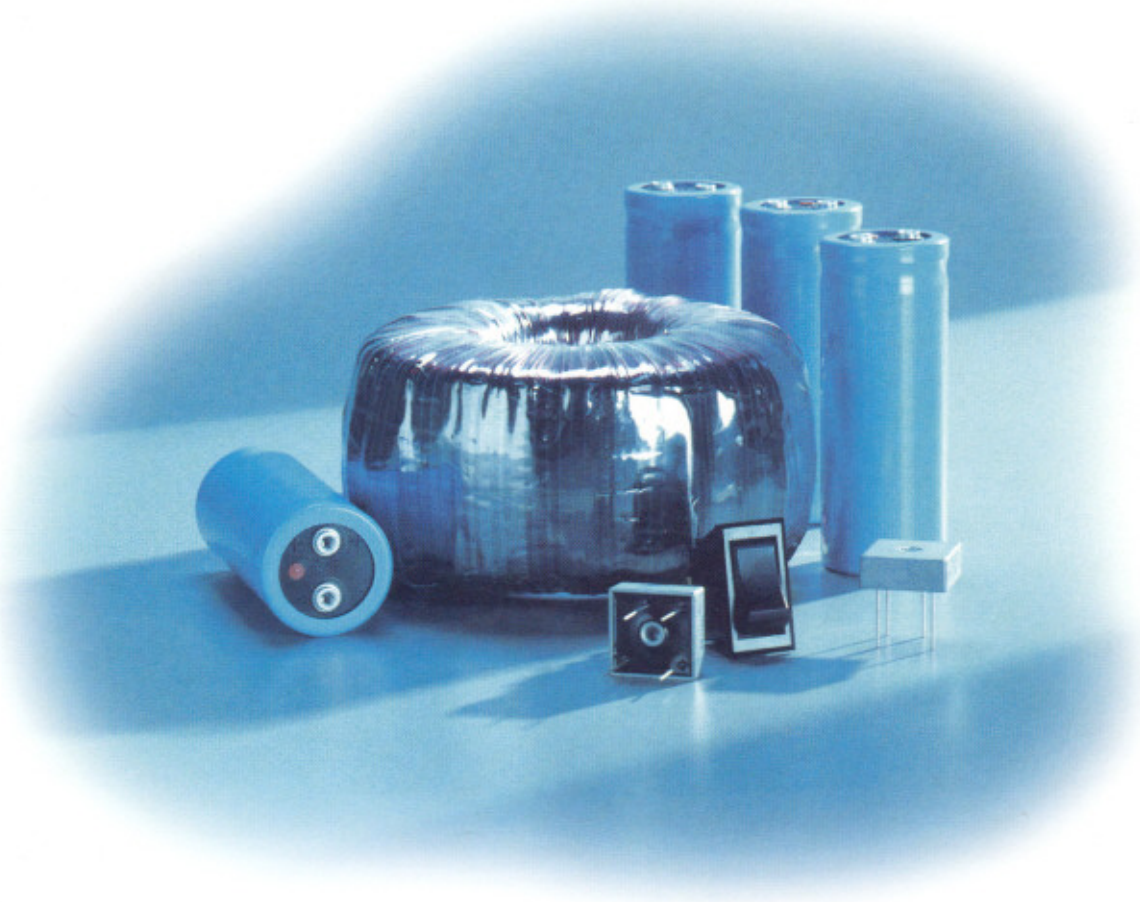
In an industry where product life cycles can be as short as six months, the Aragon 4004 maintained its **leadership position** for over eight years. This **classic of design** and engineering, respected as a milestone in audio, still commands a very high market value. The 8000 series amplifiers bring Aragon's traditional qualities to a **new level of refinement**.

To achieve this goal, the **heat sinks** needed to be dramatically increased. The custom extruded heat sinks, which dissipate the heat of the circuitry, were **increased by over 300%** in surface area. This required a **total redesign** of the chassis and its monocoque structure. In the 8008 amplifiers, the massive and solid heat sinks form the flying buttress backbone support of the chassis. Our new heat sink designs do more than just dissipate the heat. One of the key elements to sonic improvement was to push the envelope further by making several transistors **act as a single transistor**.

Matching the transistors can only take you so far. The mechanics of how the output transistors **dissipate heat** through aluminum causes their temperature coefficient to vary from one another. To maintain the intrinsic benefits of **matched transistors**, their temperatures need to be as close as possible. In creating this even temperature heat sink to transistor interface, new output devices were chosen which allowed for closer coupling. In addition, Aragon's ability to **drive very low impedance loads**, with **tremendous stability**, is greatly improved by this technology. Our mechanical engineering thereby improves sound quality.

These and other refinements combine to take this next generation of Aragon amplifiers a **significant step forward** in the evolution of sound reproduction.


aragon8008



8008 AMPLIFIERS

When it comes to amplifiers, our goal is to not only provide the ultimate in sound quality, but the **ultimate in power** as well.

The **8008 delivers** all the power your AC line can provide. This places it in a very rare and elite group of amplifiers. It is capable of converting, to the most **refined amplification**, the entire 15 amps and 120 volts of your standard AC power line.

Wattage specifications do not really determine how well an amplifier can power and control a real loudspeaker. Unlike test bench loads used to measure amplifier power, loudspeakers vary in impedance and inductance. Since amplifiers need to have a power rating, we very conservatively rate the 8008 at 200 watts of **continuous power** per channel. The notch carved into the top of the chassis insures that the heat generated by all this power will be properly dissipated even if a shelf or another component is placed immediately above the amplifier.

There are **two versions of the 8008**, the ST and the BB. The **8008ST** converts the AC line to useable power via a massive **2,000va toroidial** transformer. This custom made transformer has dual windings of copper wire wrapped around a steel core providing **dual mono operation**.

Each channel has its own separate rectification. This ensures the channel's independent operation. In addition, each channel has its own separate bank of storage capacitors thereby guaranteeing proper power delivery upon demand. This configuration creates one of the **world's largest power supplies**.

The fully discrete Class A, single ended inputs are properly isolated from the high voltage, high current output stages. Each channel is isolated on its own circuit board to prevent any possible interaction.

Wherever possible, we **design upgradeability** into Aragon components. Due to this, the 8008ST can be upgraded to the BB.

8002 AMPLIFIER

The decision to acquire an 8002 is based on power not compromise because the 8002 offers **all the quality** and **refinement** of the Aragon 8008. It utilizes the quality circuit board and components of all 8000 series amplifiers. The dual wound toroidial transformer and twin rectifiers maintain the channel separation and sound stage specificity possible only with **dual mono operation**.

Due to the size of these power supplies, a **3/4 horsepower** switch turns the amplifier on and off. Even with a switch of this magnitude, the amount of inrush current required to feed the **enormous power supply** would eventually cause the switch to weld itself. To prevent this, a slow start circuit is employed which trickle charges the supply at turn on. The slow start not only protects the on-off switch, but also **protects all the circuits** from the electrical shock encountered at turn on.

The **massive heat sinks** provide the cooling required for continuous power into the lowest impedance loads. Unlike other amplifier manufacturers which make wild claims about peak amperage, the 8002 provides the **continuous amperage** and voltage that is needed to properly drive and control low impedance loads. Peak power or transient power, whether stated as peak amps, volts or watts cannot accommodate the **sustained power** requirements needed to generate low frequencies and sustained notes. An amplifier can provide the equivalent peak power from continuous power, but cannot provide the equivalent continuous power from transient power.

Although the 8002 is very **conservatively rated** at 125 watts per channel, it is capable of **more power** into varying impedance loads than most supposedly 'high power' amplifiers. It can therefore provide **Aragon sound quality** to the majority of loudspeakers.


aragon8002

PREAMPLIFIERS

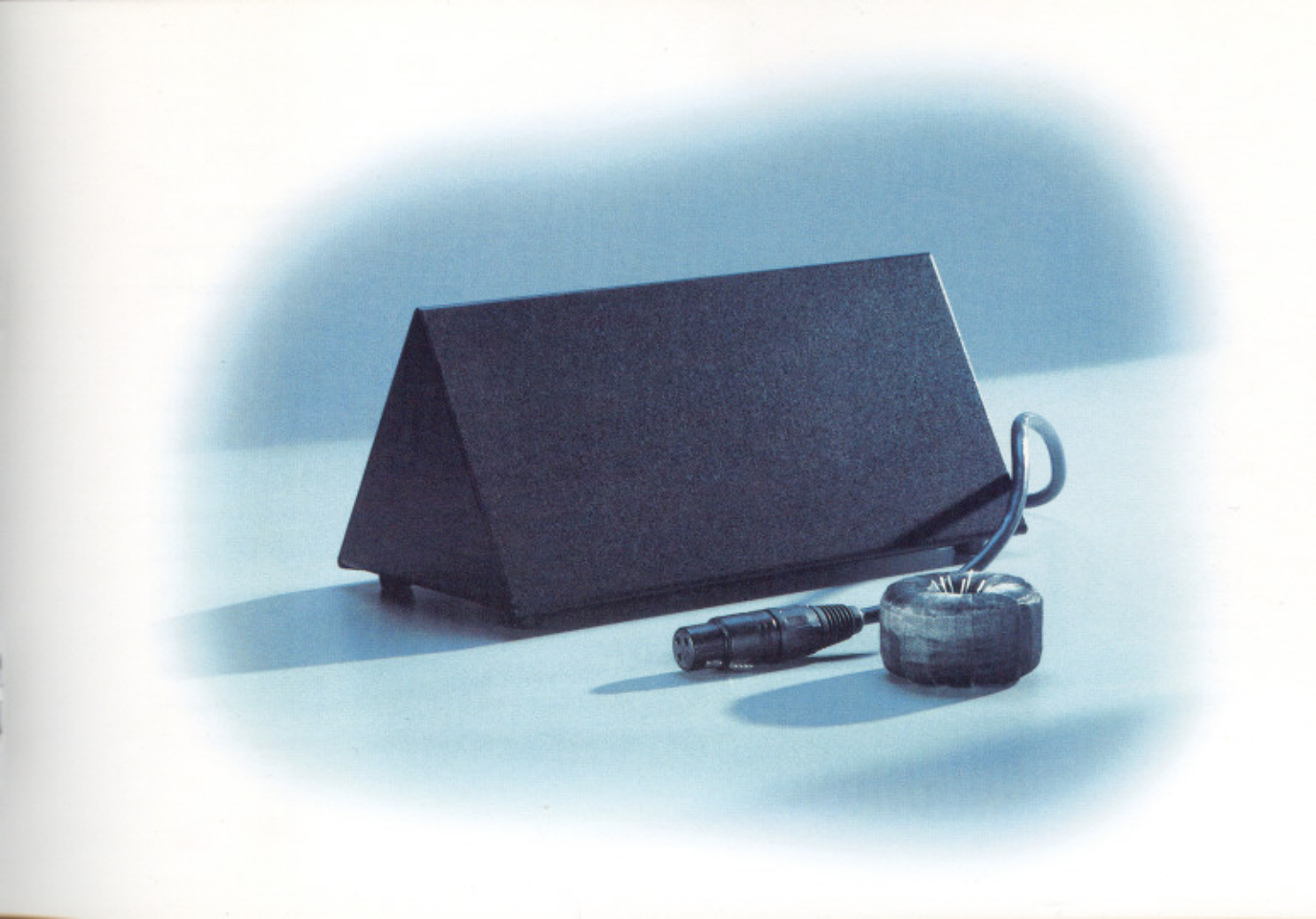
Aragon preamplifiers are designed to provide the power amplifier with the **purest possible signal**. This trait distinguishes Aragon preamplifiers from all others. While other preamps are engineered to have a particular sound, Aragon preamplifiers are engineered to have no sound. They are engineered to transmit this purest of signals under the greatest number of possible circumstances.

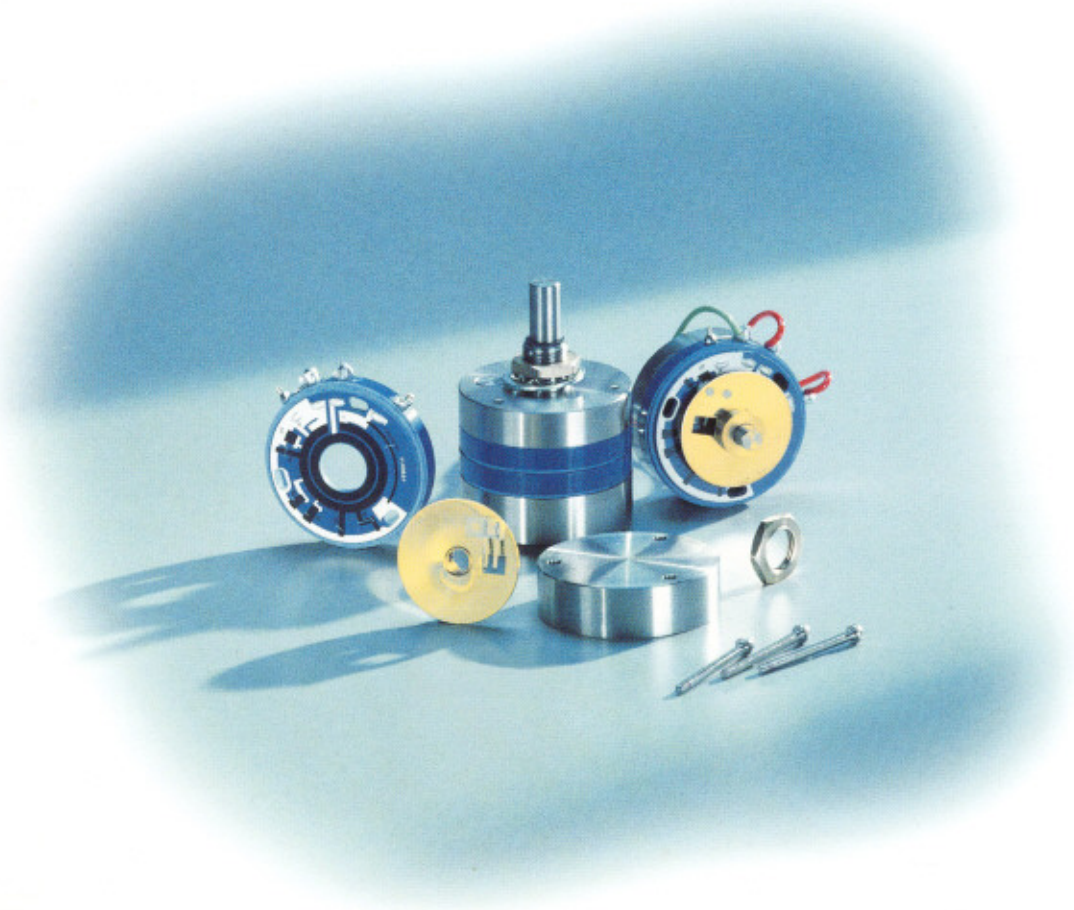
To achieve this **quest for purity**, the unique internal circuit has virtually zero output impedance. With **zero impedance**, the original signal is allowed to flow in a virtually unaltered pure form.

This **ideal circuit** must now function in the real world. To do so, a 10 ohm impedance is added at the output. This allows it to handle a biamped situation with minimum interaction between the circuit and the amplifier, helping **achieve the goal** of transmitting the purest signal under the greatest number of circumstances. Most preamplifiers are designed to amplify only voltage and have very little capability of amplifying current. Aragon preamplifiers are capable of properly amplifying both current and voltage. In most circumstances this allows our preamps to **provide the benefits** of balanced operation without the drawbacks.

Balanced operation requires that the original signal must pass through twice as much circuitry and componentry. This, of course, means that the original signal undergoes greater alteration when a preamp is operated in balanced mode. The drawback is evidenced by the higher distortion and noise that every preamplifier exhibits when run in balanced mode as compared to its unbalanced mode.

The advantage of balanced operation is that the output signal is subject to **less alteration** by outside influences, such as rf and magnetic radiation. Under most circumstances Aragon's circuitry **provides these advantages**, but without burdening the original signal with the additional circuitry.





Aragon preamplifiers also protect the original signal from the internal influences of radiation. The power supply is housed in an **external chassis**. This eliminates the effects of magnetic radiation to which all preamplifiers with an internal supply are subject. It also isolates the circuit from AC line influences, since the only power sent to the chassis is **fully rectified DC**, the same as a battery provides.

As with all Aragon components, quality of parts and construction is of paramount importance. Purity of signal is also dependent on the quality of these parts. The higher the quality the fewer the impurities or deviations contaminating the original signal. An excellent example of this is the **Penny & Giles** potentiometer found in all Aragon preamplifiers. The original signal, in its entirety, must pass through this volume control. That is why, in pursuit of the highest quality, we employ the world's costliest and **most advanced** potentiometer. The **hand made** P&G is the same control found in professional video studios. This potentiometer is used to fade from one scene to another. **The reason** that the Penny and Giles is used almost exclusively, is that these video studios are concerned with the visible degradation of the scene contained in the source signal. We are concerned with the audible degradation of the source signal, hence the employment of the same control.

We understand that some people may find the degradation or alteration of the original signal 'pleasing', but these are preferences that can change from day to day or recording to recording. Aragon preamplifiers are dedicated to **preserving the quality** of the original recording. As such they are a standard by which to judge recordings. This unique accuracy is why Aragon preamplifiers are exclusively **selected by museums** seeking to demonstrate the very real and **subtle sonic differences** between violins crafted by the same hand.

18K MKII PREAMPLIFIER

The Aragon 18k MkII is dedicated to the preservation of the original signal that enters its inputs. The **dual chassis** design allows for a large power supply, while protecting the source signal from its influence. The 18k has **over 20,000 microfarads** of storage capacitance and a dual mono DC power supply to provide the utmost in channel separation.

The **exceptionally large circuit board** allows for the ground plane to cover a large surface area, thereby protecting the source signal from rf interference. The size of the circuit board also allows for **optimized component placement**. This means that the components on the board can be separated from one another so that they can not interact in such a way that would pollute the original signal. To further **preserve the signal**, our exclusive design has only **one switch contact** from input to output. Preamplifiers which provide a so called 'bypass' mode, have at least two switch contacts in the signal path even while in 'bypass'.

The circuitry is **fully discrete Class A** with matched transistors from input to output. There are no output capacitors, thereby providing **direct coupled** operation. This allows for output below 20 hertz **without phase shift**.

Further proof of Aragon's unique preamplifier circuit, is the ability to **drive headphones** directly from the preamp outputs. There are two sets of output connectors. They can be used for **biamping** or the additional set can be used to power headphones. Instead of compromising with a small inexpensive circuit to drive headphones, Aragon provides all the quality and advantages of its **no compromise Class A** preamplifier circuit topology.


aragon18k
VOLUME
BALANCE
LISTEN
RECORD
OFF
ON
TUNER
AUX
DIA
TAPE 2
CD
TAPE 1

AURUM PREAMPLIFIER

The Aurum is the ultimate example of our unique perspective on preamplifier design. The Aurum's **huge power supply** has over 50,000 microfarads of storage capacitance, more than most power amplifiers. Aragon's **dual mono** DC supply provides regulation for each channel via discrete transistors and allows us to **custom design and optimize** the power supply to the signal path circuitry. By properly isolating the signal path of each channel on the circuit board the **true separation** of the original signal is maintained. Aragon's Aurum, however, goes even further in **protecting the source** signal from cross talk contamination. We have custom engineered shielded switches, which provide each channel with its own **isolated switch wafer**, to safeguard the dual mono separation established by the DC power supply.

The Aurum allows for both single ended and balanced operation. The balanced mode provides **improved performance** when the preamplifier is placed at a distance from the power amplifier.

As you would expect from Aragon even our **balanced circuit is unique** and offers distinct advantages over other balanced designs. In our design, the single ended output is used as a reference to accurately create the corresponding **complementary output**. The discrete Class A balanced outputs are then **time aligned** to within 2 nanoseconds.

The **Aurum's accuracy** and quality will provide many **years of listening pleasure**. We also believe that operating the mechanical switches and controls should provide pleasure to your sense of touch. Turn a **machined aluminum knob** on the Aurum and you will **feel the pleasure** of operating one the most precise audio components in the world.


OFF
MUTE
aragon aurum
LISTEN
RECORD
VOLUME
BALANCE
AUX
TAPE 1
TAPE 2
TUNER
CD
D/A
AUX
TAPE 1
TAPE 2

D2A2 Digital to Analog Converter

The Aragon D2A2 digital to analog converter combines Aragon's traditional analog engineering and build quality with state of the art digital conversion. The D2A2 utilizes the highly advanced components of both **UltraAnalog** and **HDCD**™ to create a digital section that is second to none.

The power supply section employs a toroidal transformer and provides **eleven separate stages** of voltage regulation with HFQ series capacitors. Aragon's unique grounding scheme **reduces interaction** via ground between analog and digital circuits. This results in the **absence of digital "grunge"** in the analog music signal. Separate regulators provide low impedance voltage sources for each critical stage of the D2A2, preventing digital noise from entering the analog stage. The receiver at the digital input eliminates the need for any special digital links. It assures that the bitstream clock of any disc drive will always synchronize properly with the **high speed reclocking** of the Aragon D2A2.

Jitter is ten times less than that of many highly respected Digital to Analog converters. In addition, where the other D/A converters only reject jitter beyond the audible range, the D2A2 rejects the significant majority of jitter within the **critical audible range**.

The HDCD oversampling filter is recognized within the industry as the **most advanced available**. It is capable of filtering laser discs, conventional CDs and HDCDs.

This oversampling microprocessor is operated in conjunction with the **20 bit monolithic** DACs in dual configuration. The Aragon's analog low pass filtration is a **purely passive** design assuring minimal alteration of the original signal. The Aragon D2A2's output is **fully discrete Class A**.


aragonD2A2
SOURCE
POWER
POWER
LOCK
TOSLINK
COAX 2
COAX 1

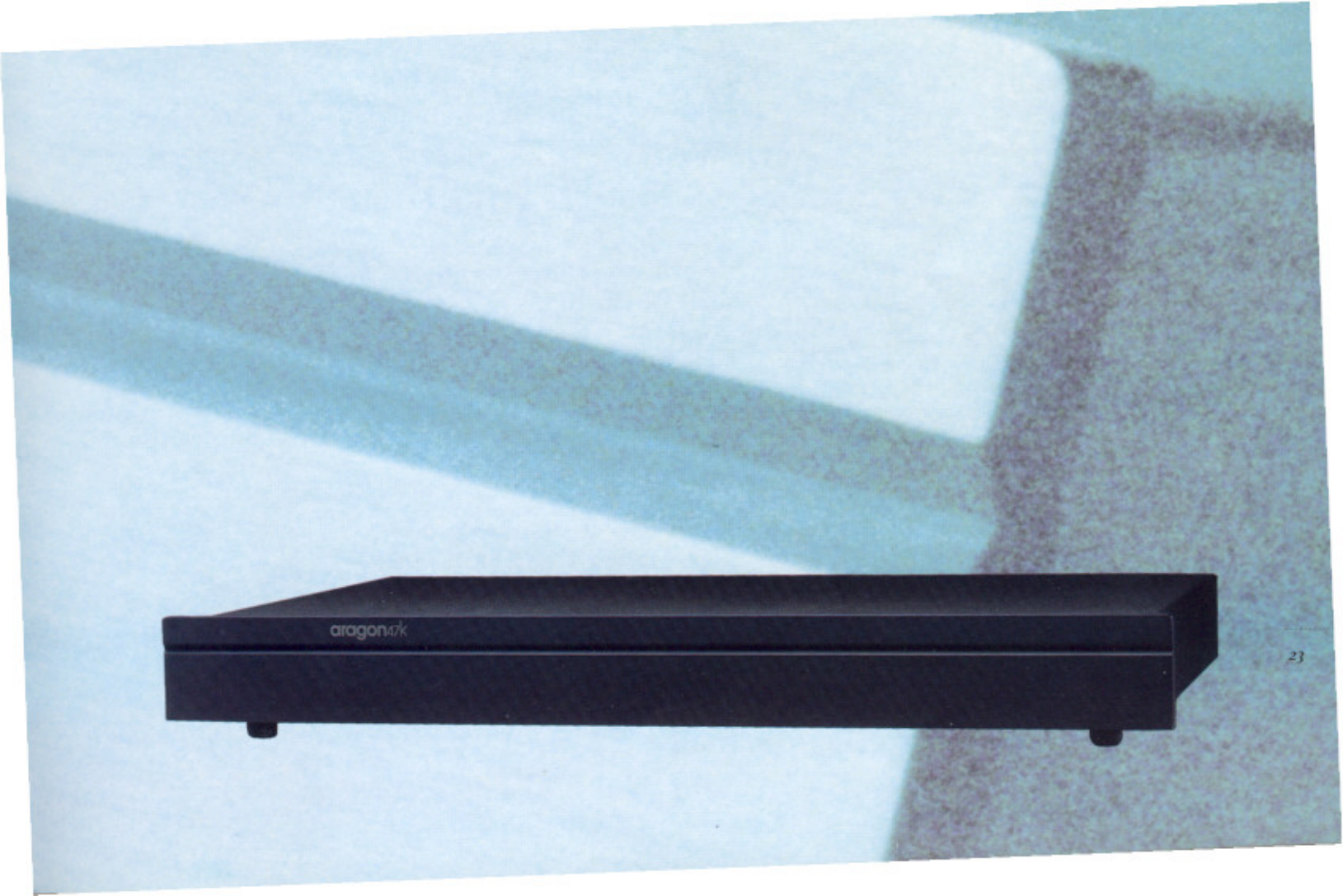
47K PHONO SECTION

The Aragon 47K phono section is **engineered to preserve** the integrity of the lowest level signal in the audio chain...the phono cartridge's output. With moving coil and moving magnet outputs of less than one thousandth of a volt, even the slightest oxidation or dirt on a contact point is audible. That is why the front panel of the 47K contains **no switches or gain controls**. Any extraneous switches or controls degrade the sound and continue to further degrade it over time. The Aragon 47K has no power switch or LED because it is on continuously in order to maintain proper operating temperature. This ensures that it will always exhibit a smoothness and **liquidity to the sound**.

The gain is adjusted internally by the use of a **gold to gold** shorting bar, to assure the highest conductivity. The load impedance can be **matched to the cartridge** via the epoxy sealed resistors soldered into the circuit board. A gold to gold contact shorting bar is again used to bring the resistors into the circuit. This method is **vastly superior** to plugging resistors into PC board sockets which are susceptible to galvanic corrosion.

To **guarantee the integrity** of these minute phono cartridge signals an external DC power supply is used. This protects the sensitive phono circuit from noise and electromagnetic radiation. Unlike other external power supplies the Aragon also provides the first stage of regulation externally. This guarantees that **only regulated DC** battery type power, enters the 47K preamplifier chassis.

Additional regulation stages are provided in the main 47K chassis. This **highly filtered** dual mono supply provides power to the fully discrete Class A circuit. With this **extreme level of precision**, you can be assured that your 47K sounds the same as the prototype we approved after extensive listening.


aragon47k

8008 ST
POWER AMPLIFIER

Rated Power:
200 watts per channel continuous, both channels driven into 8 ohms 5-20kHz at no more than 0.05% THD

400 watts per channel continuous both channels driven into 4 ohms 5-20kHz

Signal To Noise Ratio:
Better Than 110dB A Weighted

Input Sensitivity:
120mV for 1 Watt Output

Voltage Gain:
28dB

Input Impedance:
22k ohms

Damping Factor:
Greater Than 450

Power Consumption:
1500 Watts

Weight:
67 lbs

Dimensions:
19"w x 6.5"h x 14.5"d

8008 BB
POWER AMPLIFIER

Rated Power:
200 watts per channel continuous, both channels driven into 8 ohms 5-20kHz at no more than 0.05% THD

400 watts per channel continuous both channels driven into 4 ohms 5-20kHz

Signal To Noise Ratio:
Better Than 110dB A Weighted

Input Sensitivity:
120mV for 1 Watt Output

Voltage Gain:
28dB

Input Impedance:
22k ohms

Input Impedance Balanced:
44k ohms

Damping Factor:
Greater Than 500

Power Consumption:
1560 Watts

Weight:
77 lbs

Dimensions:
19"w x 6.5"h x 14.5"d

8002
POWER AMPLIFIER

Rated Power:
125 watts per channel continuous, both channels driven into 8 ohms 5-20kHz at no more than 0.05% THD

250 watts per channel continuous both channels driven into 4 ohms 5-20kHz

Signal To Noise Ratio:
Better Than 106dB A Weighted

Input Sensitivity:
120mV for 1 Watt Output

Voltage Gain:
28dB

Input Impedance:
22k ohms

Damping Factor:
Greater Than 400

Power Consumption:
1000 Watts

Weight:
50 lbs

Dimensions:
19"w x 6.5"h x 14.5"d

18K MKII
PREAMPLIFIER

Frequency Response:
5-20kHz +0.0 -0.1dB

Total Harmonic Distortion:
0.04%

Signal To Noise Ratio:
100dB A Weighted

High Level Sensitivity:
65mV

Voltage Gain:
17.6dB

Maximum Output Voltage: 8V

Input Impedance:
10k-ohm

Output Impedance:
10 ohms

High Level Inputs:
6

Tape Outputs:
2

Preamp Outputs:
2

Weight:
24 Lbs

Dimensions:
19"w x 3.5"h x 11"d

AURUM
PREAMPLIFIER

Frequency Response:
5-20kHz +0.0 -01 dB

Total Harmonic Distortion:
0.03%

Signal To Noise Ratio:
100dB A Weighted

High Level Sensitivity:
75mV

Voltage Gain:
16.4dB

Maximum Output Voltage:
16V

Input Impedance:
10k ohms

Output Impedance:
10 ohms Unbalanced
20 ohms Balanced

High Level Inputs:
6

Tape Outputs:
2

Preamp Outputs:
2 Unbalanced RCA:
1 Balanced XLR

Weight:
32 Lbs

Dimensions:
19"w x 3.5"h x 14.5"d

D2A2
D/A CONVERTER

Frequency Response:
2-20kHz +/- 0.1dB

Total Harmonic Distortion:
0.04%

Signal to Noise Ratio:
100dB A Weighted

Oversampling Rate:
8x

Number of Bits:
20

Sampling Rate:
32, 44.1, 48kHz

Analog Filter:
Pure Passive

Digital Inputs:
1 Optical Toslink
2 Coaxial RCA
1 AES/EBU

Digital Outputs:
1 Coaxial RCA

Weight:
20 lbs

Dimensions:
19"w x 3.5"h x 11"d

47K
PHONO STAGE

Signal To Noise Ratio:
86dB A Weighted

RIAA Tracking:
20-20kHz +/- 0.3dB

Phono Overload At 1kHz:
165mV

Maximum Output Voltage:
10V

Cartridge Loading Capacitance:
270pF

Cartridge Loading Resistance (Selectable):
47k, 1k, 330, 100, 47, 25 ohms

Gain At 1kHz (Selectable):
37dB, 47dB, 57dB

Weight:
18 lbs

Dimensions:
19"w x 2.5"h x 10.5"d

T H E R E A L I T Y

As with automobiles or fine watches, published specifications and quality have little in common. The specifications of Aragon components are among the best in the world. This insures the accuracy of Aragon components. Some manufacturers don't care about accuracy, and alter the sound to pander to people's tastes. We do not believe in tampering with the original musical source. Consequently, the sonic smoothness and sweetness that Aragons are known for, stem from the faithful reproduction of the original artform. The imaging, localization, ambience and sound stage are accurate, not artificially bloated or shrunken.

From the feel of the sculpted aluminum knob to the sound of the music, the Aragon experience is based on the reality of quality...handcrafted in America and internationally acclaimed as the highest quality and finest value attainable.

Photography by: JERRY ERRICO; Designed by: ROBBII