



 **aricAUDIO**

SUPER MM PHONO

ARIC AUDIO TUBE GEAR

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INTRO

Redesigned from the ground up! Now featuring an over-built outboard tube rectified and regulated power supply. Many updates to the circuit and componentry throughout to punch well above its weight class!

Pulling out the stops on this design, I now use an outboard power supply to isolate all power supply noise from the signal path. This, coupled with dual toroidal transformers for the B+, dual chokes, lifetime-rated film capacitors, and tube regulation, ensures robust power filtering and delivery! A heavy gauge pure OFC 3-foot umbilical cable connects to the signal chassis. (2) low-noise 12AX7s with shields perform the RIAA amplification duty, and the output is delivered via a low-impedance cathode follower. Shielded signal wiring is used throughout, as well as Miflex KPCU Copper output coupling capacitors. All of this adds up to the phono stage performing at an entirely different level than before. Lower noise, increased dynamics, and plenty of micro detail delivered with the smoothness you would expect from a top-notch phono stage!

Aric Kimball

Owner



IN THE BOX

- Aric Audio Super MM Phono
- Outboard Power Supply
- Signal Chassis
- Power Cord
- Heavy Gauge Umbilical Cable
- (2) 12ax7 tubes
- (1) 12au7 tube
- (1) 5U4GB tube rectifier
- (2) OD3 regulator tubes



ABOUT

This is a high end two chassis MM phono stage designed to work with medium to high gain MM cartridges and high output MC cartridges or low output cartridges with SUTs (step up transformers) between the turntable and the phono stage.

This unit has a variable output level control on the rear panel to adjust gain and to use the unit in place of a preamplifier when only a turntable is used in the system. There is a load switch that allows you to select between 100K and 47K, depending on which sounds best with your cartridge.

The unit has a low output impedance of 300 ohms with the 12AU7 in the front slot and can drive most preamplifiers, integrated amplifiers, and power amplifiers directly, provided they have an input sensitivity of 1.2 volts or lower.

MM

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GAIN\LOAD

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IMPEDANCE



DESIGN

The eq correction employs a "passive RIAA" eq, which is arguably the most accurate, and it follows the protocol for the RCA curve published back in the 1940s. This design uses modern components of high caliber and will render an accurate presentation of the signal sent to it. The entire circuit uses 1% metal film resistors and 1% film caps to ensure the phono RIAA eq is adhered to with accuracy!

All tube heaters (with the exception of the rectifier, which can only use AC) use twisted pair DC to ensure low noise.

The final output capacitors are Miflex KPCU (copper foil, paper, and poly in oil), which are extremely detailed and vibrant while still remaining warm and balanced.

Outboard power supply with 5U4GB rectifier (5U4 and 5U4G can also be used), a pair of OD3 (VR150) regulators is also used, and a high quality 8 conductor umbilical cable connects the power supply to the signal chassis. Toroidal transformers are used throughout the B+ to ensure great regulation and low noise. All capacitors are lifetime-rated film capacitors. There are also two chokes used to regulate and eliminate ripple in the power supply. No ICs or solid-state regulators are used in this design to maintain a very analog and natural presentation.

The signal stage used (2) low-noise 12AX7LPS tubes in the rear positions, which are covered by aluminum tube shields to reject RF interference. The front slot uses a standard 12AX7, 12AT7, or 12AU7 in the cathode follower position. Signal to noise is greater than 90DB on this unit, and the frequency response extends well past the possible response of the records.

POWER SUPPLY



1. OD3 Regulator Tube
2. 5U4GB Tube Rectifier
3. OD3 Regulator Tube
4. Off/ON Toggle



SIGNAL CHASSIS



1. 12AU7 Tube
2. 12AX7 Tube
3. 12AX7 Tube
4. Load Toggle
5. RCA Input
6. RCA Output
7. Ground
8. Output Level
9. Umbilical Cord Power Input



OPERATION

Please ensure the umbilical cable is connected tightly and "locked" into place on both units and that all tubes are fully inserted and in the correct positions. Note that the 8-pin OCTAL tubes have a guide center pin to ensure the tubes are inserted correctly. However, many tubes will have slight variations in their base and guide pins, which can lead to "looser" fitting tubes being accidentally installed incorrectly. Please ensure that the center guide pin is installed front dead center of the power supply before turning the system on. Failure to do so could result in physical damage to the tubes and) or the preamp.

Please note that since this is a high gain tube design, care must be taken to place the unit away from any noise-producing components (other power supplies, high voltage AC cords, laptop supplies, etc.) as well as routing all signal cables so that they are away from AC power cords, transformers, and other noise-producing devices. Doing so will ensure the best signal-to-noise ratio and the lowest amount of residual hum and noise.

This unit is 100% hand-made and point-to-point wired using hand-selected parts chosen for the best response and functionality in the unit. Please do not try to modify or "upgrade" any parts, as all parts were chosen for a reason, and to that end, I do not support DIY modifications to my gear. This unit is designed to last a lifetime and is built as I would like it built using it in my own system. The unit carries a full 2-year warranty that covers parts and labor.



SPECS

- 1 Set of Stereo MM Phono inputs
- 1 set of stereo line-level outputs
- True analog design
- 100% point-to-point wired
- (2) 12AX7s for RIAA correction and gain
- (1) 12AU7 output in a low-impedance Cathode Follower arrangement
- (1) 5U4GB tube rectifier
- (2) OD3 regulator tubes for consistent voltage
- Very low noise and high resolution
- 47k / 100k (selectable) cartridge loading
- Up to 45 db of gain
- 300-ohm output impedance
- Output level: 1.25 volts
- S/N greater than 90 DB
- Frequency response: 5-50khz +/-1db
- Compatible with medium to high gain MM cartridges or high gain MC cartridges (low-output MC cartridges will require SUTs).



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