



VAC Renaissance Preamplifier

Operation & Maintenance Information



Valve Amplification Company

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CAUTION

THE POWER SUPPLY UNITS CONTAIN NO USER SERVICEABLE PARTS. DO NOT REMOVE THE COVERS. LETHAL VOLTAGES ARE PRESENT WITHIN THE CHASSIS.

NEVER OPERATE THE PREAMPLIFIER WITH THE AUDIO CHASSIS COVERS REMOVED. BEFORE OPENING TO CHANGE TUBES, DISCONNECT THE PREAMPLIFIER FROM POWER AND ALL OTHER COMPONENTS, AND ALLOW IT TO SIT TURNED OFF FOR 30 MINUTES.

DO NOT OPERATE THE UNITS IF THEY ARE WET.

THE PREAMPLIFIER AND POWER SUPPLY UNITS ARE **HEAVY**. BE SURE TO USE PROPER LIFTING TECHNIQUES TO AVOID BACK STRAIN AND INJURY. BE CERTAIN TO INSTALL IT IN A SECURE LOCATION FROM WHICH IT CAN NOT FALL OR TIP OVER.

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INTRODUCTION

The Renaissance Preamplifier is among the world's finest audio preamplifiers, second only to the VAC Renaissance Signature Preamplifier. Sharing similar circuit designs, they are absolutely unique components. Unusual topology, premium parts, and flexibility make them a pleasure to hear and operate.

The line stage is, in effect, a small Class A1 power amplifier, capable of driving loads as low as a few hundred ohms. This is a stark contrast to normal preamplifiers, which claim a low output impedance but completely collapse when asked to deliver current. The Renaissance circuit is loafing with a normal load in the 10,000 to 200,000 ohm range, delivering an effortless, musical performance.

There is no feedback and no coupling capacitors in the line section. All active elements are triode tubes, the purest, most linear amplifying devices yet invented. Output matching is accomplished by way of superb output transformers. As a side benefit, different output grounding configurations are possible, optimizing performance into either balanced or single-ended loads, and allowing ground loops to be broken.

The optional triode tube phono stage has moderately high gain with a very low noise floor. Low output MC cartridges are accommodated by means of high quality matching transformers, which contribute voltage gain without noise, resulting in detail that emerges from a remarkably dark and neutral background.

Remote control is implemented via motorized mechanical devices. This is expensive, but provides two major advantages. First, the Renaissance Preamplifier controls are completely intuitive to use. Second, we avoid the sound degradation attendant with VCAs, relays, transistor switches, and switched resistor arrays.

The massive chassis is machined from quarter inch thick aluminum plate and fitted with damping material for a strong, resonance-resistant structure. The sculpted aluminum fascia has a hand rubbed gloss lacquer finish.

The audio circuitry and power supply are completely hand wired.

You will notice the sound quality of the Renaissance Preamplifier improve during the first few hundred hours of operation, particularly with regard to subjective frequency extension.

The Renaissance Preamplifier is designed not to the latest fad but to substance, for the highest possible sound quality. Time spent familiarizing yourself with this manual will be well rewarded.

INSTALLATION

- 1) Provide adequate ventilation.
- 2) Do not operate on carpet or any other surface that might block air flow.
- 3) The chassis will become warm in normal use.
- 4) Do not allow the chassis to touch any metal parts, such as the frame of an equipment rack. This might create a parallel ground path that could degrade the sound of your system.
- 5) Input connection is via single ended RCA jacks or XLR jacks (which can be from balanced or unbalanced sources). Output can be on RCA or XLR jacks, and can be set for balanced or unbalanced loads, with or without ground connection at the preamplifier. IMPORTANT: READ THE SECTION ON "OUTPUTS & GROUNDING SWITCH". Connect line level inputs (CD, Tuner, Tape, etc.) to the appropriate RCA input jacks on the rear panel. Note: with the exception of Phono (when fitted), all inputs are "line level"
- 6) Connect phono cables to the rear panel MM or MC inputs labeled "Phono." Connect the ground wire from the turntable or phono cable to the "Ground" terminal provided on the rear panel. Set the MM / MC switch to reflect the input jacks being used.
- 7) Connect the power cable from the power supply to the preamplifier. Note that it has a locating key and a locking collar. Be sure to insert the connector properly, and fully tighten the locking collar.
- 8) Connect the input and output cables.
- 9) Connect the power supply to the power source indicated on the rear panel, either 100, 120, 220, or 240 volts AC. The voltage may be select by means of the removable selector card located underneath the fuse in the power connector. Remove the cards and reinstall so that the desired voltage may be read. Avoid power conditioners that float the ground pin. ALWAYS connect power cord to component before plugging it into an AC outlet, and make sure that unit's power switch is set to the "off" position before making the final connection. For best performance, try to route the power cord away from signal cables.
- 10) Pay close attention to power quality, and be aware that different power cords can alter the sound. The backlit meters show variation in power line voltage as reflected to the audio circuitry.
- 11) You will notice the sound quality of the Renaissance Preamplifier improve during the first few hundred hours of operation, particularly with regard to subjective frequency extension. The phono stage, when fitted, has its own break in time. The MC phono section has a part unique to it, so use of the MM phono input does not count fully towards break in of the MC input. Break in is always fastest and most effective with signal.

INPUTS (back panel)

Three pairs of RCA jacks accommodate unbalanced line level sources. These correspond to SELECTOR positions "L1" through "L3".

Two inputs, designated "L4" and "L5" may be either RCA unbalanced or XLR balanced. Each input has a corresponding configuration switch adjacent to it on the rear panel; set this switch to match the input you intend to use (set to "SE" for RCA inputs or unbalanced XLR with pin 3 grounded, set to "BAL" for XLR balanced).

Note: Not all units with XLR connectors are balanced. Many are unbalanced, with pin 2 or 3 tied to ground. The Signature Preamplifier accepts such sources without difficulty.

Note: The sound character of the Renaissance Preamplifier is identical in either input mode. Therefore, the preferred mode will depend upon the design and voicing of the source component. Generally, units having both balanced and SE outputs tend to sound better in the balanced mode.

One pair of RCA jacks accommodates a home theater surround sound processor (left & right front channels). When the CINEMA selection is made, the output from the processor is routed directly to the power amplifier at a fixed gain. This allows volume levels to be under the sole control of the processor, allowing easy integration of your high-end stereo system into a home theater system. When no processor is connected, please keep shorting plugs in these jacks.

One pair of RCA jacks accommodate the monitor return from a tape deck. If you do not have a tape deck, these jacks can be used as an additional input.

Units without the optional phono section have two RCA jacks labeled "MC". These act as a line level input, engaged when the SELECTOR is set to "L6".

Units with phono have two sets of RCA jacks, labeled "MC" and "MM", to accept phono cartridges of low or high output. The switch should be set to "MM" or "MC" to match the inputs used. The ground lead from the turntable should be connected to the binding post located by these jacks.

OUTPUTS & GROUNDING SWITCH (back panel)

One pair of RCA jacks provide line level output to a tape recorder. The level of signal is not adjusted by the volume control.

Two sets of RCA output jacks are provided as main outputs to power amplifiers. In addition, one pair of XLR jacks can be used to drive a power amplifier.

The OUTPUT GROUND switch must be set correctly for the output configuration being used. Incorrect setting will result in either excessive buzz, or cause gross distortion of frequency response and output.

For power amplifiers with XLR input jacks, you must determine if the input is truly balanced, or if either pin 2 or 3 is actually tied to ground (unbalanced XLR):

- For true balanced inputs , select “BAL”.
- For power amplifiers with unbalanced XLR inputs, select “SE”. This will ONLY work if the amplifier ties pin 3 to ground (EIA standard); if pin 2 is tied to ground it will be necessary to modify the power amplifier to meet the EIA standard.

OPERATION

Before turning the power switch to the “on” position, mute the unit by moving the “Mute” switch to its clockwise (i.e., muted) position. You might also want to turn the “Volume” control fully counterclockwise.

Mute is automatically engaged when switching on the unit.

Allow the preamplifier to warm up for a minute before you un-mute the unit; failure to wait can cause a transient to be sent through your power amplifier that might cause damage to your loudspeakers.

As with all high fidelity products, the sound characteristic of the VAC changes somewhat as it warms up. Best sound will be achieved after about 15 minutes of operation.

Any time that the VAC Renaissance Preamplifier has not been used for a few weeks the sound may be different. This is also normal for high resolution audio equipment. Optimum sound should return after a few hours of operation, preferably with an audio signal.

Please note that although your VAC System has been run for 48 hours at the factory, it will continue to "break in" for a few hundred hours. Also be aware that many components display the need for a new break in period after being transported in unheated cargo aircraft.

FRONT PANEL CONTROLS

Although most of the front panel controls (Volume, Power, Mute) are self explanatory, VAC has outfitted this unit with several advanced features which bear further description:

Phono Section: When fitted, input "L6" is connected to a discrete, pure tube phono preamplifier, providing 40 dB of gain, suitable for use with MM (moving magnet) and many high-output MC (moving coil) cartridges. An MC step up interface can be switched in, making the Renaissance Preamplifier suitable for most low output cartridges.

Monitor/Cinema: In the "Source" position, input selection is determined by the Source Selector Switch. In the "Tape" position, the Source Selector is overridden, and the Tape inputs are activated.

The "Cinema" position provides access to one of the Renaissance Preamplifier's most unusual feature. When set in the "Source" position, input choice is governed by the Input Selector switch. Rotating the control clockwise to the "Cinema" position bypasses all preamplifier controls (including volume) and passes the output from your surround sound processor (i.e., the front left- and right-channel outputs of a multichannel processor) directly to your power amplifier. In this case, the users' analog stereo sources would be connected, as usual, to the line, phono and tape inputs. A/V inputs (DVD, Laserdisc, DSS, etc.) would be connected to the home theater processor, and the processor's main outputs would be connected to the pair of rear panel RCA jacks labeled "Home Theater Direct". When the control is set to the "Cinema" position, the Renaissance functions as a pass-through ONLY, and is controlled by the external processor, preamplifier, or other component connected to the "Home Theater Direct" inputs.

Mute: This knob is spring loaded; moving the control clockwise will toggle between the "Mute" and "Operate" condition. When muted, the VAC logo will be red; when un-muted, it will be blue. On occasion the preamplifier may seem not to have responded to a turn of the "Mute" knob; this is due to "contact bounce" in the switch. Simply turn the knob again until the desired condition is attained.

REMOTE CONTROL

The remote control allows for wireless adjustment of SELECTOR, MUTE, and VOLUME.

The remote wand is powered by two “AAA” batteries. These should be of the alkaline type. You will need to install them in the wand before using the remote. Since batteries can leak, they should be removed from the wand if it is not going to be used for an extended period of time.

Selector Up/Down: Pressing the left side of this button causes a motor to turn the selector switch in the counter-clockwise direction. Pressing the right side of this button causes the selector to turn clockwise. If the control ever stops midway between two settings, merely push the button again.

Mute: Pressing either side of the “Mute” button will toggle between the “Mute” and “Operate” condition. When muted, a red glow will be observed in the LED indicator. Mute is automatically engaged when the preamplifier is first switched on.

Volume Up/Down: These buttons cause a motor to turn the volume control; the more briefly you press the control, the smaller the motion of the volume control. Motorized controls offer superior sound, as well as direct visual indication of volume setting. The front panel control may also be used directly in the conventional way.

A Word About Tubes in General

Tubes are like the tires on a car; they will eventually need replacement. Murphy’s Law states that a tube will probably fail right at the start of a long holiday weekend. Therefore, many audiophiles keep a spare tube of each type on hand, just in case!

VAC can test tubes for concerned customers.

REPLACEMENT OF TUBES

The line stage tubes are type 8416.

The phono stage tubes are type 12AX7, also known as 12AX7A, 7025, CV4004, ECC83, and E83CC. Do not use the 5751, which some suppliers may suggest.

We recommend that you use only tubes specifically selected and tested by VAC for this preamplifier.

DANGEROUS VOLTAGES EXIST WITH THIS COMPONENT. YOU MUST FOLLOW THESE STEPS TO PROTECT YOUR SAFETY. Before replacing tubes, all power must be turned off. Unplug the power cord from the wall, and remove all audio interconnect cables. Wait 30 minutes before removing the top cover. Install new tubes of the appropriate types firmly in their sockets, noting the location of holes in the socket and pins of the tubes, taking care to make sure that pin pattern corresponds to holes in tube socket. Reinstall the top cover before reconnecting the unit.

NEVER INSTALL OR OPERATE THIS UNIT WITHOUT ALL COVERS IN PLACE.

In the event that trouble is encountered, check all signal, speaker and power connections. If the problem persists, follow all safety precautions stated earlier in this section, and check that all tubes are correctly seated in their sockets. If possible, try another tube. If the problem persists, please consult your VAC dealer or contact the factory directly.

CARE OF CHASSIS

VAC chassis are machined aluminum for superior electromagnetic performance, and finished in durable textured gloss paint. Cleaning with a damp cloth **WHILE THE AMP IS SWITCHED OFF AND UNPLUGGED** should suffice. Do not get cleaning solutions onto or into the connectors or controls.

When shipping your unit, be certain to wrap the amplifier in the cloth, tissue or plastic wrap in which it was originally packaged. Given the high gloss of the lacquered finish, make sure there are no ridges or sharp surfaces in those parts of the cloth which contact the faceplate. Use of a coarser cloth or failure to otherwise protect the faceplate may result in damage to the finish. VAC is not responsible for cosmetic damage resulting from improper care or packing.

WARRANTY

Your equipment is warranted for a period of thirty (30) days from the date of purchase. In addition, if the registration form is received by VAC along with a copy of your sales receipt from an authorized VAC dealer within this thirty days, a service contract will be extended to cover your equipment for three (3) years (tubes excepted). This warranty applies only to units sold in the United States of America through authorized VAC dealers and operated in the United States. It covers factory service and standard return shipping. For warranty information outside of the U.S. contact the importer of VAC equipment for your country. Units sold outside of the U.S. should still be registered with VAC. It is the responsibility of the dealer and customer to ensure that this unit is suitable for any given application.

Your questions and comments are always welcome. Contact:

Valve Amplification Company
1731 Northgate Boulevard
Sarasota, FL 34234
Telephone 941/359-2066 Fax 941/359-2057
info@vac-amps.com

Detach and mail to the address above as soon as possible.

Renaissance Preamplifier Registration Form

Name _____

Address _____

Telephone _____ / _____ - _____ e-mail _____

Dealer name _____ City _____

Salesperson _____ Purchase date _____ Serial Number _____

How did you first learn of VAC products? _____

What other brands/models did you consider? _____

What made you decide on the VAC? _____

What else would you like us to know? _____

Optional:

What magazines do you read regularly? _____

What are your hobbies (besides filling in warranty cards)? _____

What are your favorite types of music? _____

On what format? (CD, LP, DVD, SACD, MP3, etc.) _____