



VALVE AMPLIFICATION COMPANY



STANDARD  
MUSICBLOC 160  
MONOBLOCK TUBE  
AMPLIFIER

INSTRUCTIONS

15 FEBRUARY 2005

*Please read carefully before installing*

## WELCOME

Congratulations on your purchase of the VAC Standard Musicbloc 160, and welcome to the family of VAC owners!

Your VAC is designed not to the latest fad but to substance, providing the highest quality of sound. Time spent familiarizing yourself with this manual will be well rewarded.

It is our goal to provide instruments of the highest quality, be informative to all of our customers, and to provide responsive, effective customer service.

Please feel free to contact us if we can be of assistance. We can be reached:

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E-mail	<a href="mailto:info@vac-amps.com">info@vac-amps.com</a>
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We look forward to being of service, even as you have many years of enjoyment from your VAC instrument.

Kevin M. Hayes  
President, VAC

## **GENERAL PRECAUTIONS & SAFETY NOTES**

1. VACUUM TUBES BECOME HOT ENOUGH TO CAUSE SERIOUS BURNS. NEVER TOUCH A TUBE WHEN THE UNIT IS ON. IT MAY TAKE SEVERAL MINUTES FOR THE TUBES TO COOL DOWN AFTER THE UNIT IS SWITCHED OFF. INSTALL THIS AMPLIFIER IN SUCH A WAY THAT PEOPLE, PETS, AND FLAMMABLE MATERIALS CAN NOT COME INTO CONTACT WITH THE AMPLIFIER.
2. DO NOT EXPOSE CHASSIS TO MOISTURE. DO NOT PLUG INTO AN AC SOURCE UNTIL ALL CONNECTIONS ARE COMPLETED.
3. Complete all signal (interconnect and speaker cable) connections *before* connecting the AC cord to the wall outlet and turning the unit on. Similarly, always turn the amplifier off and remove the AC power cord before detaching cabling. Failure to observe this sequence can result in damage to the amplifier, speakers or associated components.
4. For protection of your speakers and power amplifier, source components should be switched on before the power amplifier. Similarly, turn the power amplifier off before switching off the source components.
5. THESE UNITS CONTAIN NO USER SERVICEABLE PARTS. DO NOT REMOVE THE BOTTOM COVER. LETHAL VOLTAGES ARE PRESENT WITHIN THE CHASSIS. DO NOT OPERATE THE UNITS IF THEY ARE WET.
6. This amplifier is moderately heavy. Please exercise caution in lifting the unit, and take care to install it securely in a sturdy, well designed stand so that it will not fall or tip over (this could cause serious, possibly fatal injury).

## INSTALLATION

Physical requirements:

- 1) Provide Adequate Ventilation-Allow at least three inches of free air space above and two inches to either side of amplifier
- 2) Do not place the amplifier in a completely enclosed cabinet. If equipment cabinet has a solid front door, a “boxer” fan will be necessary to ensure proper airflow.
- 3) Do not stack other components (or any objects which could impede proper ventilation) on top of the amplifier.
- 4) Do not operate the amplifier on carpet, or on any other surface that might restrict airflow.
- 5) The amplifier chassis will become very warm during normal use.
- 6) The amplifier must be installed in a secure, sturdy, properly built (and ventilated) stand, cabinet or enclosure. The Standard Musicbloc 160 is heavy, and could inflict serious injury or property damage if it falls, or if the stand upon which it is placed tips over. This concern is particularly important in households with small children who might try to climb furniture. In addition, care must be taken to prevent people, pets, and flammable materials from coming into contact with the VERY HOT vacuum tubes.

## **Basic Hookup:**

- 1) Connect a volume-controlled line-level source to either the input RCA connector for ‘single-ended’ sources or the input XLR connector for balanced sources. Set the front switch to reflect the connection used.
- 2) Connect loudspeaker cables to the five-way binding posts on the rear panel. Make sure that all connections are tight (Do NOT over tighten, or damage to amplifier or speaker cable may result), and that heavy or bulky cables are properly strain-relieved.
- 4) Connect the AC power cord to the IEC connector on the rear panel. 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.
- 5) Set the TEST switch to “1” (ON) to illuminate the four front LED’s. Watch them as the amplifier warms up, adjusting output tube bias as necessary. (See “Output Tube Bias Adjustment”, below)

As with all high performance audio products, the sonic characteristics of all VAC products will continue to improve during the first several hundred hours of use.

## **Output Tube Bias Adjustment:**

Your amplifier has been shipped with the output tube bias properly set. Nonetheless, it should be checked when you install your amplifier and approximately once every month thereafter. It must also be adjusted each time a tube is replaced.

Adjustment of the output tubes is quite easy, and requires only a small screwdriver. On the front panel are four bi-color LEDs, each with an adjacent adjustment control. View the LEDs from directly from above. Adjust the LEDs to be green when the amplifier is not playing music. To set, turn the control clockwise until the LED just begins to change to an amber/red color, and then back the control off just slightly to restore the pure green color.

As music plays, the LEDs will vary from green to red. Check the bias if you ever see an LED stay red while music is not playing, or if an LED does not tend toward amber or red when music is playing. If the flashing of the LEDs is bothersome while listening, the switch on the front labeled "Bias Test" can be set to "0" (OFF), disabling the LEDs. The switch must then be set to "1" to check the bias of the output tubes.

Any tube that can not be adjusted to the correct bias point should be replaced. Any tube which requires constant readjustment should be replaced immediately. Never operate the amplifier with an LED that shows red when music is not playing.

When installing new tubes, set the bias controls counter-clockwise. Check the bias of all tubes as the amplifier warms up - don't wait ten minutes.

Bias levels should be checked monthly to ensure optimum sound quality. It is not unusual for the bias to change with time, particularly when tubes are new. The greatest amount of drift occurs during the first 200 hours of a tube's life. The drift may change direction periodically, such that the bias control must be increased and later decreased, or vice versa. Check bias if the sound seems lacking in detail or dynamics.

## **Matching To Your Loudspeakers**

Like many modern tube amplifiers, the Standard Musicbloc 160 includes multiple match taps for the speaker outputs. Do NOT assume that the setting which corresponds to your speakers' published impedance specification will yield the best sound. Due to the various standards by which impedance can be measured, not to mention the fact that a speaker's impedance varies with frequency, it is impossible to assert with certainty which output tap will yield the best sound. For this reason, VAC strongly suggests auditioning your speakers through all settings. In general, we find that a speaker's minimum impedance is more important than its nominal (average) impedance when determining which setting is correct. A lack of bass response often indicates that a lower impedance setting should be tried.

## **CHASSIS CARE**

Although your amplifier is extremely durable, its finish can be scratched, chipped or damaged if improperly treated. Cleaning with a soft, damp cloth while the amplifier is switched off and unplugged should restore the finish to its original lustre. Never clean with harsh or caustic cleansing agents.

When shipping your amplifier, be certain to wrap the amplifier in the cloth, tissue or plastic wrap in which it was originally packaged. VAC is not responsible for cosmetic damage resulting from improper care or packing.

## **GENERAL INFORMATION ABOUT TUBES**

It is true that each brand of tube sounds different in a particular high resolution circuit. This is because no two manufacturers make a tube type in quite the same way, and the central tendencies of the performance parameters will differ slightly with each maker.

This sonic variability may at first seem a liability, but further thought will reveal that it is an advantage. The owner of a tube amplifier can select those tubes which sound like the real thing in his/her specific system. VAC can recommend the best tubes for your amplifier.

Normally vacuum tubes should last for 4,000 to 12,000 hours of use, or two to ten years for most users. There are always occasional exceptions, long or short. If you have to replace a tube before, say, 3,000 hours, just replace the single tube. If you have to replace a tube at 8,000 hours, replace them all and keep those still functioning well as spares

VAC will be happy to test tubes for concerned customers.

### **Installing New Tubes:**

Original Equipment Replacement tubes are available from VAC. These tubes ensure your amplifier will meet or exceed all factory performance specifications.

Before replacing tubes, all power must be off. Mute unit, place power switch in the “off” position and unplug power cord. Remove cover and old tubes ONLY after the unit has cooled down (In normal use, tubes become hot enough to cause serious burns. Allow several minutes for tubes to cool before attempting to remove or replace.) Install the new tubes fully firmly in their sockets, taking care to observe the direction of the locating ridge in the plastic center pin of the large KT88 output tubes’ metal & phenolic base. With 9-pin miniature 12AU7 tubes, make sure that pin pattern corresponds to holes in tube socket.

When changing KT88 tubes, turn the bias control corresponding to the new tube fully counterclockwise. After turning the unit on and allowing it to reach normal operating temperature, follow the normal biasing procedure.

In the event that trouble is encountered, switch power to the “off” position, check that all tubes are correctly seated in their sockets and check all signal, speaker and power connections. If possible, try another tube. If the problem persists, please consult your VAC dealer or contact the factory directly.

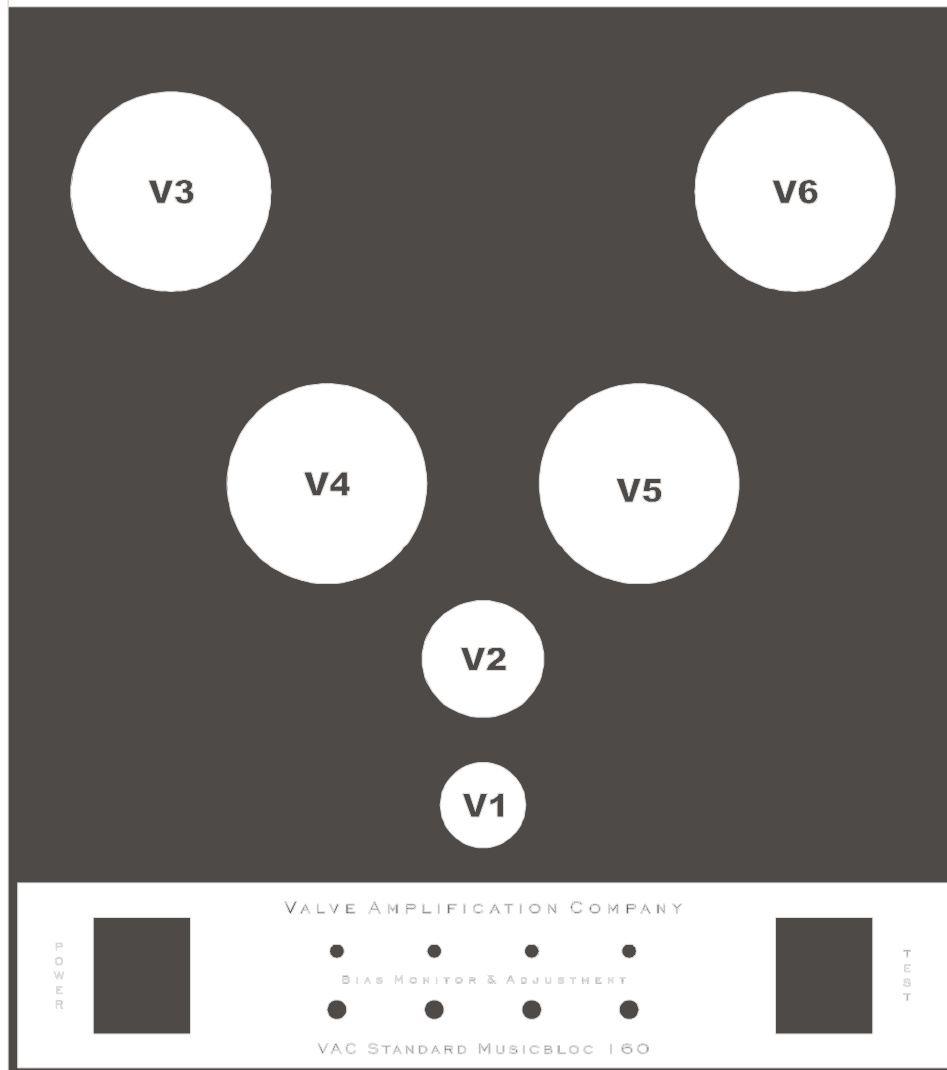


## Tube types:

**V1 = 12AU7 / ECC82**

**V2 = 6SN7GTA / 6SN7GTB**

**V3-V6 = KT88**



## 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 the original purchaser and only for units sold in the United States of America through authorized VAC dealers. It covers factory service and standard return shipping within the continental US. 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.

Your questions and comments are always welcome. Contact:

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# **VAC STANDARD MUSICBLOC 160 REGISTRATION FORM**

*MAIL TO VAC SOON AS POSSIBLE.*

Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_/\_\_\_\_\_-\_\_\_\_\_ E-Mail \_\_\_\_\_

Dealer name \_\_\_\_\_

" address \_\_\_\_\_

Purchase date \_\_\_\_\_ Serial Number \_\_\_\_\_

Salesperson \_\_\_\_\_

How did you first learn of VAC products?

\_\_\_\_\_

What other brands and models did you consider?

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\_\_\_\_\_

What made you decide on the VAC?

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Please provide any comments on VAC products or your dealer

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What magazines do you read regularly?

\_\_\_\_\_

\_\_\_\_\_

What are your hobbies?

\_\_\_\_\_

What are your favorite types of music?

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