



VT80 SE

Stereo Power Amplifier

Thank you for choosing the VT80 SE to be a part of your performance music system. Since 1970, Audio Research has been creating some of the world's finest audio products. Each piece is handcrafted in Minnesota and has been designed to provide many years of enjoyment.

We understand you may want to begin listening; however, it may take a few minutes to get the most from this guide for useful information concerning the operation of your new amplifier. Once you have read the performance of this amplifier, we encourage you to continue to improve your listening pleasure by allowing you to fully appreciate the sound that it will provide to your system.

After reading the manual, please contact us if you have any further questions regarding your amplifier. We are your dealer who will be happy to assist you.

audio research
HIGH DEFINITION®

Contents

Warnings	5	Maintenance	15
note about packaging.....	5	Vacuum Tubes	15
before operating the VT80 SE	5	Servicing	15
		Caution	15
Installation	6	Cleaning.....	15
Top Plate	6	Disposal and Recycling Guidelines.....	15
to remove the top cover (for VT80 SE units sold outside of North America).....	7	Warranty	16
your system	7	Specification	17
Connections	8		
Back Panel Controls and Connections.....	8		
Input Connectors	9		
Output Connectors.....	9		
Important	9		
Attaching.....	9		
A.C. Power Connection	10		
Remote Turn-on	11		
5-232 Control	11		
Operation	12		
Front Panel Controls and Displays.....	12		
Start-Up.....	13		
Put-Down	13		
Hour Counter	13		
Auto Shut Off	14		
Break-in.....	14		
Auto Bias	14		

To prevent fire, or shock, do not open or expose your VT80 SE to rain or moisture.

Do not place objects on top of this unit.

This unit contains voltage components that can cause serious injury or death. Do not open the unit covers removed. Refer servicing to an authorized Audio Research technician or a qualified personnel.

The detachable power cord is equipped with a heavy duty three-prong grounding cable and a standard grounding plug appropriate to which it is originally shipped. For protection, do not defeat the plug. This provides protection of the VT80 SE chassis from electrical shock and protection from electrical fire.

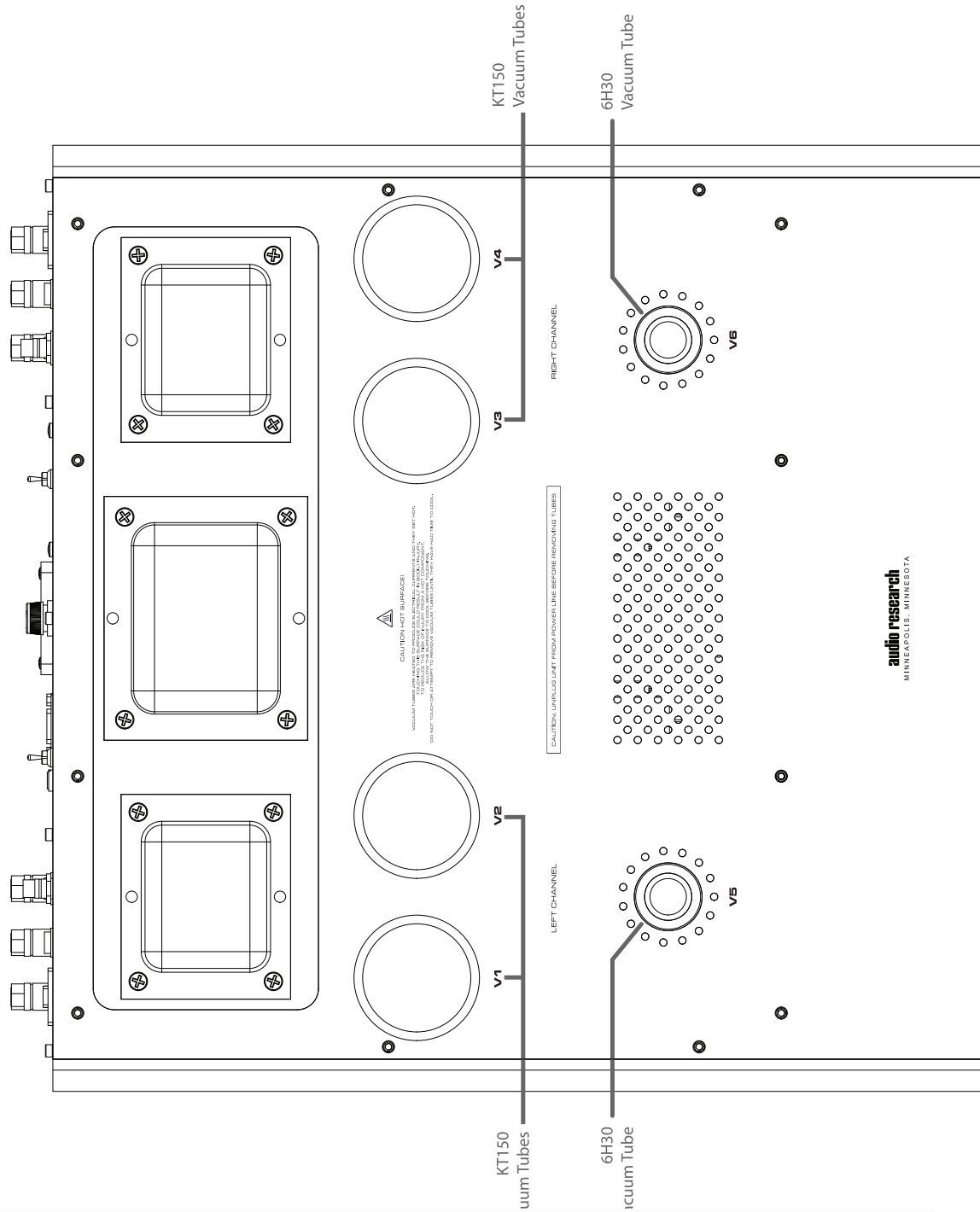
The appliance coupler (a.1) is located at the rear of this unit must be used in the event of an emergency power disconnection.

The VT80 SE shipped out of the factory is shipped with a protective cover. While the cover may be removed, it is recommended to prevent damage to the unit with the hot vacuum tubes.

Installation

Top Plate

VT80 SE TOP VIEW



audio research
MINNEAPOLIS, MINNESOTA

To remove the top cover
units sold outside of No
Using the provided hex-
the fastening screws fr
back edges of the tube
the screws have been re
the cover.

After removing the top co
tubes packed in protec
Top Plate illustration to
your VT80 SE in their pro
chassis. Note that the n
each tube correspond to
on the chassis next to
Insert each tube firmly
the tube pins with the co
holes.

In your system

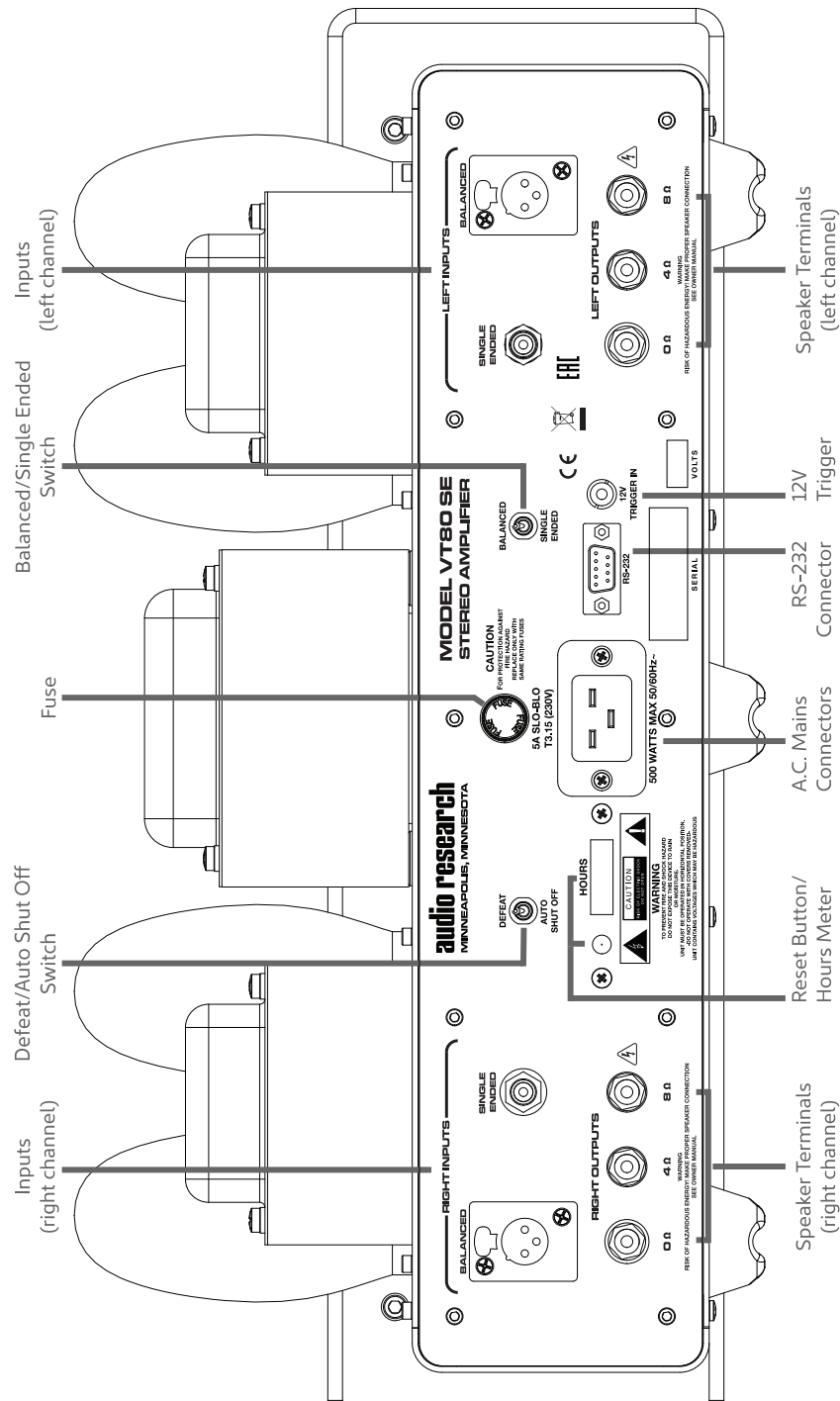
To insure normal comp
operation this unit mus
in an upright position. Ac
proper cooling can occu
restriction above and be
either side.

The special non-marring
provide adequate spa
only on a smooth, har
assist to isolate the amp
vibrations. For upright

Connections

Back Panel Controls and Connections

VT80 SE REAR VIEW



Input Connectors

The VT80 SE uses a full topology and has a pair of connectors along with a RCA input connectors. The must be in the appropriate Single-Ended or Balanced preamplifier's output to turning on the amplifier the balanced XLR input single-ended RCA connector – connect one pair of

Output Connectors

Proprietary, heavy-duty are provided on the rear 8-ohm speaker impedance high-quality speaker cable the (-) speaker lead to (0 Ω black banded) (+) lead to the matching banded) terminal. Follow manufacturer's impedance The VT80 SE puts out the power whether the 4 ohm are used.



Note: The 4 Ω tap wiring and speaker switch have a common ground of the amplifier output

Connections

Connect the VT80 SE input to the preamplifier electronic crossover, using only the highest grade of audio interconnect cables. To avoid sonic degradation use the shortest practical length of cables.



Note: The VT80 SE will not be damaged by improper impedance match to the speakers, but maximum power delivered to the speakers may be affected.

C. Power Connection

It is important that the VT80 SE be connected to its supplied 20 amp IEC 12-gauge power cord to a secure, dedicated A.C. power receptacle. Never connect to convenience power receptacles on other equipment. Only use the power switch on the front of the VT80 for On/Off control of the amplifier, or the V start-up trigger for remote installations.

The AC power source for the VT80 SE amplifier should be capable of supplying 10 amperes for 100 or 120 volt units, or 5 amperes for 220 or 240 volt units.

For the very best performance on 100 or 120 volt circuits, the VT80 SE should be connected to its own AC power circuit branch, protected by a 15 amp breaker. The

other components of your system. If the VT80 SE is turned on before other components, the amplifier will amplify any extraneous turn-on noises those components might generate, which could potentially damage the loudspeakers. Good operating practice dictates that the amplifier should be turned on last, and turned off first in an audio system.

The VT80 SE uses a grounding system that does not require a ground-lifter adapter plug on the A.C. power cord to minimize hum. The power cord supplied with the VT80 SE has a standard grounding plug to provide maximum safety when properly connected to a grounded wall receptacle. If there is any question regarding proper grounding procedures in your installation, seek help from a qualified technician. Caution should be taken before using custom after-market power cords: they must be at least 12-gauge and have a standard grounding plug properly installed. These power cords are to be used with caution, at the sole risk of the owner.

If electronic crossovers or other equipment is used with the VT80 SE, it may be necessary to use 'ground' on the power plugs or to minimize system hum. The lowest hum is achieved with a direct connection between the 'ground' and true earth ground. A preamplifier, through its power cord. Other equipment in the system may have some form of isolation between ground loops and associated hum.

Remote Turn-on

The VT80 SE has a built-in turn-on/off circuit for operation with a control system in a home audio system. Use a 3.5mm mini plug to connect to the turn-on jack on the rear of the VT80 SE.

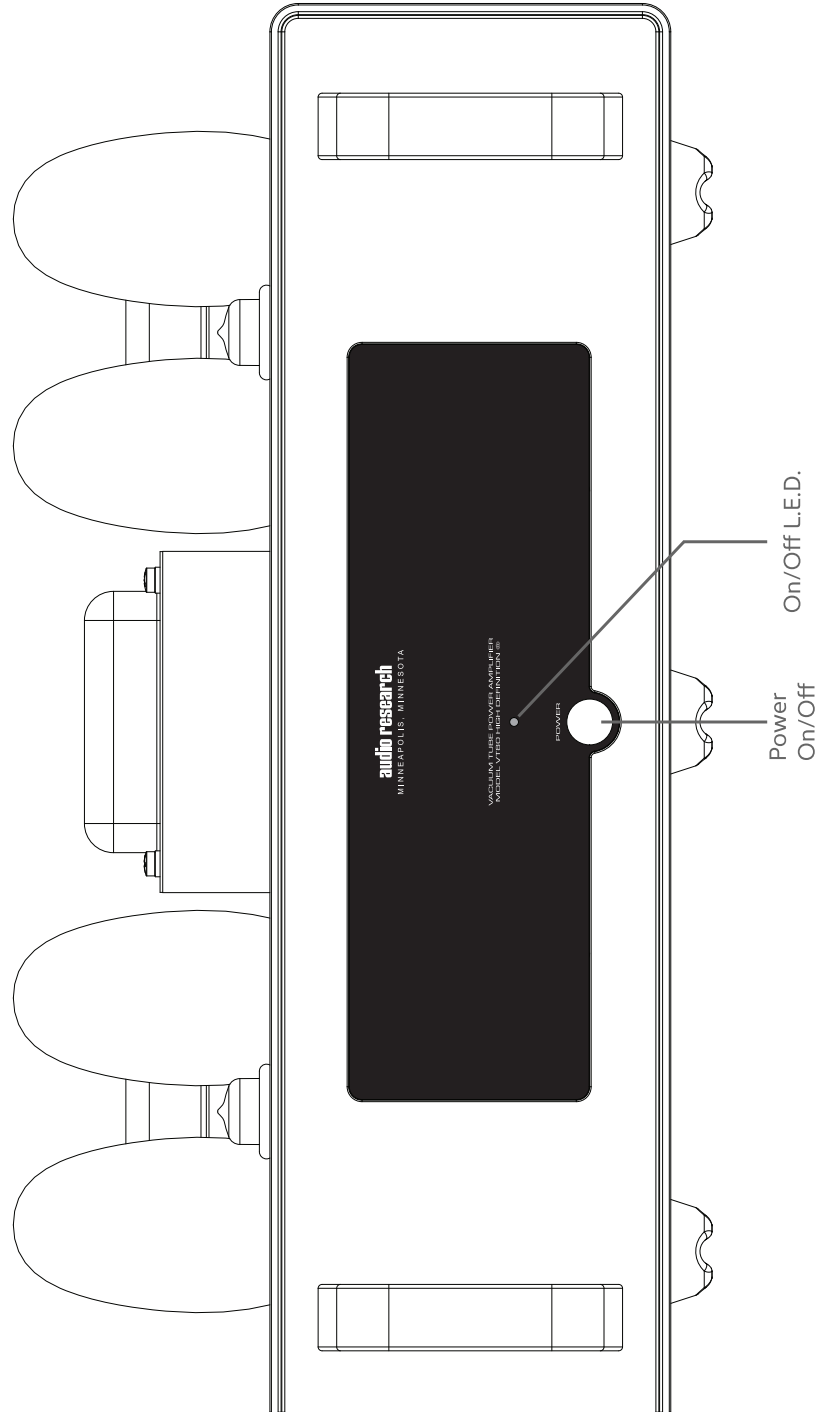
The +12V TRIGGER IN is connected to the +12V master control system, which provides a +12VDC signal at 12mA for the duration of amplifier on-time. This is momentary or data pulse operation.

The +12VDC remote jack is for protection, so they will not be damaged by a -12VDC signal is accidental. The control wires are reversible.

Operation

Front Panel Controls and Displays

VT80 SE FRONT VIEW



Start-Up

- Secure interconnects between your preamplifier and your amplifier; adjust to the appropriate output.
- Attach supplied power inlet of amplifier, and grounded A.C. power receptacle.
- Turn on preamp and allow mute preamp output.
- Press VT80 SE front panel Green power LED will illuminate.
- The VT80 SE has an automatic mute circuit which allows tubes to stabilize before becoming active.
- Unmute preamplifier source component signal as appropriate.

Shut-Down

- Mute preamplifier output.
- Press VT80 SE front panel power button.
- Turn off preamplifier associated input source.

Operation

Auto Shut Off

The VT80 SE is equipped with an auto shut off feature, designed to turn the amplifier off after two hours of no signal being present at the output of the amplifier.

At the event that quiet music is listened to at very low volumes, there may not be adequate signal for the auto shut off circuit, resulting in the amplifier turning itself off. If this is the case, please disengage the auto shut off feature. The auto shut off feature control switch is located on the back panel of the VT80 SE. Toggling the switch allows you to turn the feature on or off.



Note: The auto shut off feature is not the signal path of the amplifier and has no deleterious sonic effect on music playback.

Break-in

High quality stereo equipment benefits from a break-in period; during this time, various components change as electrical signals pass through them. While your VT80 SE will sound excellent out of the box, it will only improve with continued use.

Auto Bias

The VT80 SE incorporates a highly

Vacuum Tubes

It is recommended that vacuum tubes of your All of the tubes in your been matched to have characteristics, to provide quality and reliability. In to replace a single output to the numbers written at the bottom of the vacuum Research recommends tubes after 3,000 hours of

Servicing

Because of its careful standards of manufacturing, the amplifier should normally provide minimal service to maintain performance. Your VT80 individual fuses for each is to prevent circuit board tube arc occur. These fuses the underside of the circuit each tube. In the event a qualified service technician Research Customer Service can exist long after the Use extreme caution.

Caution

Your VT80 SE amplifier levels of voltage and current

Warranty

Audio Research Corporation products are covered by a 3-Year Limited Warranty or a 30-Day Limited Warranty (vacuum tubes). This Limited Warranty initiates from the date of purchase, and is limited to the original purchaser, or in the case of demonstration equipment, limited to the balance of warranty remaining after original shipment to the retailer or importer.

In the United States, the specific terms, conditions and remedies for fulfillment of this Limited Warranty are listed on the warranty card accompanying the product in its shipping carton. The warranty terms are also available on the internet at www.audioresearch.com/en-us/company/warranty-statement. Outside the United States, the authorized importing retailer or distributor has accepted the responsibility for warranty of Audio Research products sold by them.

The specific terms and remedies for fulfillment of the Limited Warranty may vary from country to country. Warranty service should normally be obtained from the importing retailer or distributor from whom the product was purchased.

In the unlikely event that technical service beyond the ability of the importer is required, Audio Research will fulfill the terms and conditions of the Limited Warranty. Such product must be returned at the purchaser's expense to the Audio Research factory, along with a photocopy of the dated purchase receipt for the product, a written description of the problem(s) encountered, and any information necessary for return shipment. The cost of return shipment is the responsibility of the purchaser.

POWER OUTPUT: 75 watts; distortion typically 1% at 7000 Hz, dependent upon both line and speaker power will be affected adversely.

POWER BANDWIDTH: (-3dB) 20 Hz to 20,000 Hz

FREQUENCY RESPONSE: 20 Hz to 20,000 Hz

INPUT SENSITIVITY: 1.4V F

INPUT IMPEDANCE: 300K

OUTPUT POLARITY: Non-inverted

OUTPUT TAPS: 8 ohms, 4 ohms, 16 ohms

OUTPUT REGULATION: A (Damping factor approximately 20)

OVERALL NEGATIVE FEEDBACK: 20dB

SLEW RATE: 10 volts/microsecond

RISE TIME: 4.0 microseconds

CHANNEL SEPARATION: 20dB

HUM & NOISE: -84dBV weighted

SIGNAL TO NOISE: 112dB

CONTROLS: Power on/off, volume

AMBIENT AIR TEMPERATURE: 60°F to 100°F

POWER SUPPLY ENERGY: 1000VA

POWER REQUIREMENTS: 500 watts maximum, 230VAC

FOUNDATION

SERIES

audio research
HIGH DEFINITION®

3900 Annapolis Lane North
Plymouth, MN 55447
www.audioresearch.com

Specifications subject to change without notice.

©2017 Audio Research Corporation. Reproduction of this document in part or whole is expressly forbidden without written

Downloaded from www.linephaze.com

- Find specs, manuals and used listings across thousands of audio products.