

# VT80

## Foundation Power Amplifier



The new VT80 is the much-anticipated amplifier that finally allows the Foundation series to be shown as a complete system. Combining an enticing new esthetic with worry-free operation and great audio performance, the VT80 is a vacuum-tube amplifier that will open doors to a new customer base. The U.S. retail price is \$8,000.00.

The sleek extruded metal chassis is both beautiful and strong, providing a rigid structure from which two 6H30 driver tubes and four KT120 tubes emerge. Available in both natural and black anodized finishes, the low profile front panel features a black inlay reminiscent of other Foundation-series products, along with a power switch, all flanked by two handles.

The rear panel contains both single-ended RCA and balanced XLR input connectors allowing the VT80 to be integrated into virtually any system. In addition to a tube hour meter, there is a 12V trigger and an RS232 port to remotely control operation. 4- and 8-ohm brass and gold binding posts provide secure speaker connections. There is also a switch to engage or defeat an auto-off function, triggered when no input signal is encountered after two hours.

At the heart of the VT80 are two important new features that have never been offered before by Audio Research. The first is a proprietary auto-bias circuit developed entirely in-house by our engineering department. Simply drop in the tubes and the VT80 will adjust bias for each output tube. The circuit automatically adjusts for tube wear or fluctuations in the power in real time. It will also work for different types of output tubes, including 6550, KT88, KT90, KT120 or KT150. The adjustment range is wide, but matched tubes from Audio Research still provide the highest performance. Finally, an auto-bias circuit that works in real time and does not compromise performance!

The second new feature includes fusing of each output tube. In case of a fault condition in a tube, an easily replaceable fuse will blow, not a resistor. This is what we mean by worry-free operation.

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With the beautiful new look, the flexible connection options, and the great new features, thrilling audio performance remains our primary goal and the foundation upon which we were built. Designed as part of the Foundation series, the core of the VT80 is adapted from the Reference 75, including the same power and output transformers, similar circuit topology, and many of the same parts. The 75 watt-per-channel VT80 offers striking dynamics, powerful bass, and natural clarity combined with a very holographic presentation. The result is sonically breathtaking and provides a new reference in its price range.



## Specifications

**POWER OUTPUT:** 75 watts per channel continuous from 20Hz to 20kHz. 1kHz total harmonic distortion typically 1% at 75 watts, below 0.05% at 1 watt. (Note that actual power output is dependent upon both line voltage and 'condition' i. e.: if power line has high distortion, maximum power will be affected adversely, although from a listening standpoint this is not very critical.)

**POWER BANDWIDTH:** (-3dB points) 7Hz to 60kHz.

**FREQUENCY RESPONSE:** (-3dB points at 1 watt) 0.7Hz to 80kHz.

**INPUT SENSITIVITY:** 1.4V RMS BAL for rated output. (25dB Bal gain into 8 ohms.)

**INPUT IMPEDANCE:** 300K ohms Balanced (150K ohms SE).

**OUTPUT POLARITY:** Non-inverting. Balanced input pin 2+ (IEC-268).

**OUTPUT TAPS:** 8 ohms, 4 ohms.

**OUTPUT REGULATION:** Approximately 1.0dB 8 OHM LOAD TO OPEN CIRCUIT (Damping factor approximately 8).

**OVERALL NEGATIVE FEEDBACK:** 15dB

**SLEW RATE:** 10 volts/microsecond

**RISE TIME:** 4.0 microseconds

**CHANNEL SEPARATION:** 112dB

**HUM & NOISE:** -112dBV no signal, input shorted

**SIGNAL TO NOISE:** 115dB

**CONTROLS:** Power on/off, auto shut-off on/defeat, Input BAL/SE, RS232, 12V trigger

**AMBIENT AIR TEMPERATURE:** 30° C (86° F) maximum ambient air temperature

**POWER SUPPLY ENERGY STORAGE:** Approximately 350 joules

**POWER REQUIREMENTS:** 100-125VAC 60Hz (200-250VAC 50Hz) 410 watts at rated output, 500 watts maximum, 230 watts idle. Sleep power < 1 watt

**TUBES REQUIRED:** 2 - Matched pair KT120 - Power Output; 2 - 6H30 Driver

**DIMENSIONS:**

width 19" (48.3 cm)

height 10.33" (26.2 cm)

depth 18.45" (46.8 cm) to chassis, 19.40" (49.3 cm) to terminals

**WEIGHT:** 45.7lbs. (20.7 kg) Net; 60.5 lbs. (27.4 kg)

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