



# REFERENCE 150

## Stereo Power Amplifier

Simply put, the REF150 is a breakthrough in stereo power amplification. Replacing the REF110—which was one of the finest and most sought-after modern stereo amplifiers—was a daunting task, but it has been accomplished. The REF150 offers more power, greater dynamic thrust, a more vivid and resolved presentation, greater finesse, and quieter operation. It is the new benchmark.

Having identical outer dimensions as its predecessor, the REF150 has much more packed into its chassis. Refined front-panel cosmetics reflect the updated look of current-generation models, with silver units having silver handles and silver top covers, while black units have black handles and black cover. (Colors may be mixed to match older models.)

The REF150 is a fully-balanced design, so its inputs are balanced XLR only. It has a 20-amp IEC power connector, 4-8-16 ohm output taps and 12V triggers arrayed on the rear panel. Under the top cover there are a number of circuit enhancements resulting in stunningly improved performance.

First, power-supply energy storage has been doubled to some 1040 joules. All-new interstage coupling capacitors using technology and materials first incorporated in our Anniversary Edition preamplifier effortlessly link input stage to output stage, which is powered by two matched quads of KT120 output tubes driven by 6H30 twin triodes. There is more than ample multistage solid-state regulation. Output stage coupling is a combination of “ultralinear” and Audio Research’s patented “partially cathode-coupled” topology, which is superior to conventional pentode or triode operation.

Larger, wide-bandwidth output transformers handle the greater output with ease. Power output is rated at 150 WPC into 4-, 8- or 16-ohm speaker loads. Each channel is very quietly fan-cooled using new low-turbulence intakes, with three selectable fan speeds. Internally there is a small LCD display that indicates tube hours.

With all of these changes one would logically expect enhanced performance. But it is fair to say you will be shocked by the amount of improvement you hear from the REF150 when compared to its predecessor. Those familiar with the boundary-extending performance of the Anniversary Preamplifier will hear similar qualities from the REF150.

The immediate impression conveys much greater speed, power and control compared to any other tube power amplifier you can think of. Bass extension, harmonic delineation and speaker driver control are the best ever to come from an Audio Research tube amplifier, regardless of power output – and that is saying something. The REF150 does not drive a loudspeaker so much as it dominates it and brings to life the most from any speaker. Paired with capable front-end components and good cabling, the results are nothing short of a revelation. You will hear inner harmonic structure and dynamic realism that simply were not present before, within an envelope of air and spatial cues that let you know that you are hearing everything that the recording has to offer.

In short, the REF150 amplifies more critical musical information from your preamplifier and source components than you have ever heard before. Prepare to be astonished once again.

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## SPECIFICATIONS

**POWER OUTPUT:** 150 watts per channel continuous from 20Hz to 20kHz. 1kHz total harmonic distortion typically 0.6% at 150 watts, below 0.03% at 1 watt. Approximate actual power available at 'clipping' 160 watts (1kHz). (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) 5Hz to 80kHz.

**FREQUENCY RESPONSE:** (-3dB points at 1 watt) 0.5Hz to 120 kHz.

**INPUT SENSITIVITY:** 2.0V RMS BAL for rated output. (24 dB Bal gain into 8 ohms.)

**INPUT IMPEDANCE:** 300K ohms Balanced.

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

**OUTPUT TAPS:** 16 ohms, 8 ohms, 4 ohms.

**OUTPUT REGULATION:** Approximately 0.6dB 16 ohm load to open circuit (Damping factor approximately 14).

**OVERALL NEGATIVE FEEDBACK:** 14dB.

**SLEW RATE:** 13 volts/microsecond.

**RISE TIME:** 2.0 microseconds.

**HUM & NOISE:** Less than 0.1mV RMS – 114dB below rated output (IHF weighted, input shorted).

**POWER SUPPLY ENERGY STORAGE:** Approximately 1040 joules.

**POWER REQUIREMENTS:** 105-125VAC 60Hz (210-250VAC 50Hz) 730 watts at rated output, 900 watts maximum, 420 watts idle.

**TUBES REQUIRED:** 4 – Matched pair KT120 – Power Output; 4 – 6H30 Driver.

**DIMENSIONS:** 19" (48.3 cm) W x 8 3/4" (22.2 cm) H x 19 1/2" (49.5 cm) D. Handles extend 1 1/2" (3.8 cm) forward.

**WEIGHT:** 75 lbs. (34.2 kg) Net; 90 lbs. (41 kg) Shipping.

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