

Reference 150 SE

Stereo Amplifier



Simply put, the Reference 150 SE is a breakthrough in stereo power amplification. Replacing the Reference 150—which was one of the finest and most sought-after modern stereo amplifiers—was a daunting task, but it has been accomplished. The Reference 150 SE offers more power, greater dynamic thrust, a more vivid and resolved presentation, greater finesse, and quieter operation. It is the new benchmark.

The Reference 150 SE 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 KT150 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.



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 KT150
- Power Output; 4 - 6H30 Driver

Dimensions:

width: 19" (48.3 cm)
height: 8.75" (22.2 cm)
depth: 19.5" (49.5 cm)

Handles extend 1.5" (3.8 cm) forward

Weight:

75 lbs. (34.2 kg) Net
90 lbs. (41 kg) Shipping