

POWER AMPLIFIER



REFERENCE 110 STEREO POWER AMPLIFIER

Reference 110 Stereo Power Amplifier

A major reason that our Reference products have been so successful is that each offers great value—the remarkable performance each provides had simply not been available near its price. Now, the Reference 110 will redefine expectations and value in a truly state-of-the-art stereo amplifier. It is perfect for anyone who does not require the high power provided by our larger monoblock Reference amplifiers. The dimensions of the REF110's chassis are identical to those of a REF210, large but not unwieldy. The thick front panel simply has an On/Off switch and corresponding LED and does not contain the vacuum-fluorescent display found on its more powerful siblings. The attractive internal layout is similar in appearance to the REF210 with the right and left channel boards mounted horizontally, flanking the transformers mounted on a raised central channel running front-to-back. A small LCD display indicating tube hours is mounted on the front of the right channel board and is visible through the top. Two small 12V D.C. fans are mounted on the rear panel, with a small internal switch allowing their speed to be set to low, medium or high. Input is balanced XLR only, while the output has separate taps for 4-8-16 ohm speaker loads via our proprietary five-way binding-posts. The REF110 has two 12V triggers (input and output) to allow remote turn-on, and there is a 20A IEC connector for the power cord.

Power output is 110 WPC continuous, based upon a push-pull, fully balanced circuit utilizing two matched pairs of 6550C output tubes per channel. The input stage utilizes direct-coupled JFETs with a 6H30 gain stage and 6H30 cathode-follower. Biasing is performed internally and is both simple and straightforward, with insulated test points on the main boards. Output stage coupling is a combination of “Ultralinear” and Audio Research’s “partially cathode-coupled” topology, yielding better sound than conventional pentode or triode operation. The REF110 is truly a Reference product, maintaining the musical presentation of its larger siblings. The REF110 is simply revelatory, displaying an irresistible combination of grainless detail, refinement and dynamic life with bass definition, impact and control. And, as a visiting reviewer who heard a preproduction unit commented, “The Reference110 reproduces the widest soundstage I have ever heard from a stereo amplifier!” This amplifier plays *big*, in every positive respect.

We invite you to visit your Audio Research dealer to rediscover your music and what makes it so compelling.

REF110 Specifications:

POWER OUTPUT: 110 watts per channel continuous from 20Hz to 20kHz. 1kHz total harmonic distortion typically 0.3% at 110 watts, below 0.03% at 1 watt. Approximate actual power available at “clipping” 120 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.)

FREQUENCY RESPONSE: (-3dB at 1 watt) 0.6Hz to 90kHz.

INPUT SENSITIVITY: 1.8V RMS BAL for rated output. (24dB 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 0.7dB 16 ohm load to open circuit (Damping factor approximately 12).

HUM & NOISE: Less than 0.2mV RMS -106dB below rated output (IHF weighted, input shorted).

POWER SUPPLY ENERGY STORAGE: Approximately 520 joules.

POWER REQUIREMENTS: 105-125VAC 60Hz (210-250VAC 50 Hz) 630 watts at rated output, 800 watts maximum, 410 watts at “idle.” al triodes with JFET input. (3) 6H30 dual triodes as HV regulators.

TUBES REQUIRED: 4 - Matched pair 6550C - Power Output; 4 - 6H30 Driver.

DIMENSIONS: 19" (48.3 cm) W x 8.75"(22.2 cm) H x 19.5"(49.5 cm) D. Handles extend 1.5" (3.8 cm) forward.

WEIGHT: 67.4 lbs. (30.7 kg) Net; 83 lbs. (37.8 kg) Shipping.

Specifications subject to change without notice.