

POWER AMPLIFIER



HD220

HYBRID STEREO AMPLIFIER

HD220 Hybrid Drive Stereo Power Amplifier

Whether tube or solid-state, power amplifier designs from Audio Research have always emphasized the key criteria of musicality, lifelike dynamics and realistic soundstaging. Whichever technology was used was intended to serve these priorities in the music reproduction chain.

Recent advances in solid-state output devices and other components have opened up design possibilities as never before, allowing Audio Research engineers to combine the strengths of two different technologies in a completely new power amplifier: the new Hybrid Drive HD220 stereo power amplifier.

We call it "Hybrid Drive" because that's how it works. As in the Reference 110, a JFET input (for low noise) feeds a 6922 dual triode gain stage, which in turn feeds a 6H30 dual triode cathode follower which drives the outputs through our proprietary coupling capacitors (first used in our Reference 3 preamp). This vacuum-tube input / driver arrangement sets the stage for superbly musical performance and a nuanced, lifelike character at the front end of the amplifier.

The output stage is comprised of twelve Thermal Trak® bipolar output devices per channel, producing 220 WPC into 8 ohms, and nearly 400 WPC into 4 ohms. These new devices have the unique ability to automatically adjust their internal bias in response to operating temperature, thereby assuring extremely consistent output performance no matter how hard the amplifier is pushed. Low-noise fan cooling of the output stage keeps the output devices within their operating range. Power supply regulation is all solid-state to assure stability and consistency under high-current-demand loads, and power supply energy storage is a startling 200,000 mF capacitance for explosive dynamics and rock-solid bass impact and control. One look under the cover tells you that the HD220 is all about performance.

But the HD220 offers livability as well, with all of the dual-triode front-end tubes being run very conservatively within their operating range for longer life. We have even included an easy-to-read meter to keep track of tube hours. And, needless to say, there are no output tubes to replace, ever. Both balanced and single-ended inputs are provided, as well as a detachable 20-amp IEC-connector power cord. Output connectors are our proprietary gold-over-copper binding posts. The chassis dimensions of the HD220 are identical to those of the Reference 110.

In performance, as always, your own ears will be the final judge. But we honestly believe that this unique amplifier represents the highest level of sonic performance we have yet experienced from any solid-state or hybrid design. Its musicality is superb, with a degree of transparency and grainless purity that is nothing short of eerie, thanks in large part to extremely low distortion and a low noise floor. Dynamics and bass control are thunderous and controlled, whether driving dynamic or planar-type loudspeakers, thanks to the Thermal Trak® output stage. In short, the HD220 gives you the finesse and nuance for which tube amps are famous, with the consistency and speaker control under high-current-demand conditions that solid-state amps excel at. This HD220 simply goes and goes and goes.

If you are a demanding music lover who wants ultimate sonic performance without the periodic burden of replacing amplifier output tubes, you now have a new choice – one that opens a new chapter in the Audio Research High Definition® story.



HD220 Specifications:

POWER OUTPUT: 220 watts per channel into 8 ohms from 20Hz to 20kHz. 380 watts per channel into 4 ohms.

FREQUENCY RESPONSE: (-3dB points at 1 watt) 0.5Hz to 200 kHz.

INPUT SENSITIVITY: 4.0V RMS BAL for rated output. (20.8 dB Bal gain into 8 ohms).

INPUT IMPEDANCE: 300K ohms Balanced, 150k ohms SE.

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

OUTPUT REGULATION: Approximately 0.07dB 8 ohm load to open circuit (Damping factor approximately 130).

OVERALL NEGATIVE FEEDBACK: None.

HUM & NOISE: Less than 0.1mV RMS -112dB below rated output (IHF weighted, input shorted).

POWER SUPPLY CAPACITANCE: 200,000 uF.

POWER REQUIREMENTS: 105-125VAC 60Hz (210-250VAC 50Hz) 750 watts at rated output (220 WPC 8 ohms) 1200 watts max (380 WPC 4 ohms) 250 watts at "idle."

TUBES REQUIRED: 2 - 6H30 Driver, 2 - 6922 Voltage amp.

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: 58.9 lbs. (26.8 kg) Net; 73.8 lbs. (33.6 kg) Shipping.

Specifications subject to change without notice.