

Audison

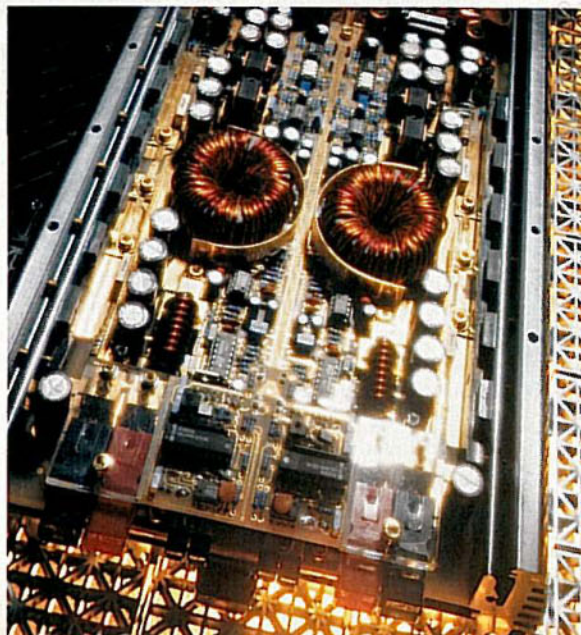
T E S T R E P O R T

HR-100

200-WATT POWER AMPLIFIER



MOST PEOPLE HAVE CHAMPAGNE taste and a beer budget. Some of us have beer taste and no budget. If any of this sounds familiar, stop reading right here. This review will only make you profoundly jealous and very, very sad. High rollers, fanatical sound-off competitors, Donald Trump-alikes, NBA stars, Saudi arms dealers, and S&L bank presidents should sit up and take notice, though. Audison's HR-100, which is manufactured in Italy, appears to be worth its weight in gold . . . and features a



price tag to match.

The HR-100 is Audison's flagship "statement" amp. It's a medium-powered stereo model (rated to deliver 100 watts x 2 into 4 ohms) that costs more than a good used car . . . as much as a cheap new car . . . and more than a nice speedboat. Exactly how much are we talking about? Sir, if you have to ask. . . . Actually, it's \$6,000. And it's a lovely piece of work.

Even the packaging it's shipped in is sweet: It comes in a 78-pound carton, within which is a wood

PHOTOS BY TONY CORDOZA

crate that's screwed shut with wrapping bands secured by wax seals. Opening the cover reveals a tray with all sorts of Audison connectors, power cables, signal cables, speaker cables, fuse blocks, and other tidbits. Lifting up the tray reveals a blue velvet cover, and within that is the HR-100 itself, a genuine Italian-made work of art measuring 2¼ x 29¼ x 9 inches (h/w/d). Know that it is a limited-edition component (Audison expects to build only a couple hundred at most), and each amp is numbered.

The amplifier's chassis is fashioned from beautifully extruded aluminum, with black-walnut trim on its ends and along the top as well as gold-plated accents. Really, it's gorgeous. One end holds a pair of phono jacks for line-level input. You'll also find box sockets for speaker outputs. The other end holds four more box sockets for remote turn-on and external muting (independent for each channel) as well as four massive box sockets for power input—again, completely independent for each channel. The external muting feature can be used to mute the audio when a cellular call comes in or a detector chirp sounds.

Along one end of the chassis' top, four translucent pins conduct light from four internal LEDs. When the amp is first switched on, two green LEDs begin flashing, then remain lit once proper operating temperature has been reached. Two red LEDs light only when one of the internal protection circuits is triggered. At the other end of the chassis, a section of the wood trim can be removed to reveal two potentiometers, which can be used to adjust input sensitivity independently for each channel.

The amp's design is classic, too. In terms of both aesthetics and engineering, the HR-100's insides are just plain beautiful. At low power the HR-100 is a Class A amplifier; at higher power it gradually switches to Class AB operation. The PWM switching power supply lies at one end with the amplifier section at the other; they're separated by four large power-supply capacitors providing 26,000 microfarads per channel, in addition to 8,000 µF of primary capacitance for each channel.

The two audio channels are physically independent, with one built along each

long end of the chassis. None of their circuitry is shared—creating, in effect, a dual-mono power supply. Each independent channel uses six MOSFET voltage regulators for a total capacity of 210 amperes per channel; together they're capable of furnishing 800 watts of continuous power. They also provide two secondary voltages: one for the final stage at high current and medium voltage, another for driver stages at low current and high voltage. Power-supply efficiency is said to be an impressive 75 percent.

The input stage uses a constant-current differential amplifier with localized feedback; an internal dip switch can be used to vary the amount of feedback over a 15-dB range, allowing experienced installers to minimize output distortion. A combination of dual JFETs and complementary bipolar junction transistors are used as active devices.

The output stage employs quadruple push-pull-type D MOSFETs; the output is guaranteed to be stable into 0.5-ohm loads. Protection circuits guard against thermal runaway, shorted outputs, and inverted polarity.

Internal construction is extremely solid, with plenty of massive connecting blocks sprinkled throughout. Copper bars are used in all of the high-current circuit paths to minimize loss. In addition, the circuit-board traces are gold-plated and all of the electrical components comply with military standards. Audison's confidence in its construction job is demonstrated by the HR-100's *unlimited* lifetime warranty. Price: \$6,000. Audison, Dept. CSR, 99 Tulip Ave., Floral Park, NY 11001.

THE INSTALL

Aside from hiring and deploying a team of armed guards around Hammer Labs, the installation of the HR-100 proceeded smoothly. Working carefully, I dropped the heavy amplifier into the front trunk of my Porsche and secured it to the trunk floor with supplied self-tapping screws. The next step was unusual: I spent an hour or so preparing Audison's custom cables and connectors, which are supplied in pieces and need to be soldered together. Though this scheme is known to provide a secure fit, I'm not especially enamored of it because it em-

ploys contact snap connectors, in which a small leaf spring presses the contacts together. I prefer more pedestrian screw and crimp terminals; I just think they'll hold up better over time. I was also surprised to discover that the connectors are housed in plastic mounts—"surprised" because plastic breaks easily.

The rest of the install was routine. It was easy to input a pair of line-level cables from the head unit, output two pairs of speaker cables, and connect the power and remote-turn-on leads; as always, I placed an in-line fuse near the battery in the battery cable. Finally, I powered up the system, popped open the chassis' wood trim piece, and adjusted input sensitivity for each channel. Then I buttoned up the trim and hit the road.

ON THE ROAD

There are two schools of thought regarding power amplifiers. One school says that every power amplifier sounds different and anyone with half a tin ear can spot huge differences from a mile away. The other school says that all power amplifiers sound essentially the same. Personally, I stand somewhere in between. I think there *are* differences, but people often exaggerate them.

These subtle sonic differences shouldn't be confused with our usual conception of sound quality, though. A truly high-fidelity power amp, in fact, has no "sound quality" of its own; instead, it simply conveys the signal without affecting it except in regards to sheer amplification. Any amp that provides "warm" lows or "brilliant" highs is changing the signal, which is exactly what an amplifier shouldn't do. In short, a good power amplifier is completely neutral.

Considering the HR-100's pricetag, I decided that I would settle for nothing less than absolute, stellar neutrality. To determine yea or nay, I did some lengthy cruising with the amp and also listened to it while parked beside the road with the engine off. In all cases, there was no doubt: The HR-100 is an excellent, invisible high-end power amplifier.

At low power output, the bass response, midrange, and highs were extremely transparent. Whatever type of music I auditioned, from rap to classical, the HR-100 did an excellent job of get-