SA Equipment
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Audiomat Prelude Reference 20 Integrated Amplifier

Ting and bang with class.

Review By Neil Walker

Rattled, moved and inspired.
Me, that is, after listening to the Audiomat Prelude Reference 20 integrated amplifier. Listening to the 20 also raised a question: how often does a piece of audio gear create self pity in the reviewer?

Five years ago, the Audiomat Prelude Reference amplifier impressed me with its resolution, accuracy, speed and musicality. It impressed me so much that I sold my trusty Audiomat Arpege and purchased the Reference. It has not disappointed me since its arrival. It still has the speed, faithfulness and musical presence that I noted in my review. It still has great bass slam, detailed mid-range and transparent uppermost frequencies. Nothing that a carefully voiced high-current amplifier should not deliver. However, not too long ago, I reviewed the Audiomat Opera integrated amplifier elsewhere. It was a great experience — as I wrote at the time, Shirley Horn's album, *You Won't Forget Me*, left me sleepless with excitement from the musical magic the Opera created.

Now, here I am again, somewhat rattled by the experience of listening to great music on an excellent amplifier. Although the 20 does not possess the magical qualities of the Opera, it compensates in other ways. The Opera gets its magic not only from first-rate components and design, but also from its ancient secret. It is a Class A amplifier — 100 percent Class A. Before someone starts with some corny jokes about "Class A — at that price it oughta be Class AAA++," let me explain. If you already know the distinctions among Class A, Class B and Class AB amplifiers, skip the next paragraph.

The Classes

The simplest way, if not the most accurate, to understand the difference between a Class A and a Class AB audio amplifier, is to think of an amplifier as a — wait a minute, that doesn't work either. In a simple vacuum tube or valve, (let's use this word instead of vacuum tube — saves keystrokes) there are three essential parts, a cathode, an anode and, between these two, a grid. Current flows from the cathode (negative) to the anode (positive) when the voltage applied to the grid allows it to do so. Thus, when you apply a voltage to the grid in a valve, the anode current flow increases. In a class A amplifier, there is always a voltage applied to the grid, so that there is always a current flow from the anode.

In a Class A amplifier, both halves of a signal (the upper and lower halves, say, of a sine wave) are applied to the grid, since the signal on the grid can increase and can also decrease to reflect what is happening when the lower half of the signal or the lower half of a sine wave is applied to the grid. The Class A amplifier produces an increased current that matches in its varying quantity the variations in voltage applied to the grid. When a varying voltage, such as an audio frequency signal, is applied to the grid, the current flow from the anode increase proportionately; its output is an analogue of the input voltage applied to the grid.

In a Class B amplifier, there is no continuous voltage applied to the grid, so that, when a varying signal such as an audio signal, that contains both positive and negative as above is applied to the grid, only half of the signal is reflected in the anode's current. As a result, the B class amplifier's output signal is distorted and incomplete. The first step in a solution is to create a two-valve output, called a push-pull arrangement, where each valve amplifies one half of the signal. Now, the output contains a complete analogue of the input voltage.

But a problem remains. The juncture between the two tubes' output signal is not going to be a perfect fit. As a result, there can still be a number of unpleasant bits of noises unrelated to the audio signal you applied to the two grids. The solution is a type AB amplifier where there is a constant voltage applied to the grid of each valve, but at a lower level than the voltage applied in a type A amplifier. Doing this allows a small degree of amplification of the bottom side of the audio wave signal applied to the grid in each tube. In a two-valve, push-pull system, there is now an overlap between the two amplifier valves — the valves are now covering the null point between the high and low, plus or minus, of the signal that we are amplifying.

The Class A amplifier, since it is always producing a full current, runs hot and is inefficient, with a theoretical maximum efficiency of 50 per cent. It is always running at 100 per cent of possible output. The Class AB amplifier, the engineers tell us, has a theoretical maximum efficiency slightly higher than 75 per cent and thus also runs cooler. However, the Class A amplifier still produces the cleanest, most musical sound — as long as heat and electricity consumption are not at issue. Thus, the biggest difference between the Opera amplifier and the Prelude Reference 20 is the difference between pure Class A and Class AB amplification. Thus, the manufacturer may apply a substantial voltage to the grid of the AB amplifier and validly make the claim that it operates in Class A up to one half of full power.

In the example of the 20 and the Opera, we are dealing with two high current amplifiers that put the energy into different parts of their task, one strong bass and treble, the other the exceptional smoothness, the magic to which I referred, of the Opera. Thus, I discovered a new soundscape listening to any of the recordings with the Prelude Reference 20 that I had used to review the Opera. I think of it as the soundscape of my youth. Powerful bass, crisp, detailed, able to both reproduce music at low frequencies as well as push large quantities of air back and forth. The highs benefit in similar fashion. A high current amplifier has the ability to make undistorted, easy-to-listen-to high notes and musical harmonics. In reproducing a bass note so that it sounds like a musical note from a recognizable musical instrument, the harmonics set off during the attack phase of the note are what make the musical part of the reproduction.

The Music

“Nuages,” the first cut on James Carter’s CD *Chasin’ The Gypsy* [Atlantic CD CD83304] is one of my favorites for reviewing. I once took it, a regular production CD; into a listening room for an excellent high-end system at the Montréal audio show. At the end of the piece, the room was in almost breathless silence as the dozen or so people, including the sales persons, gathered themselves to return to the mundane. “Not bad for 20 bucks a pop,” is what I wanted to proclaim, but I behaved myself.

I love to hear the baritone saxophone’s reed start the opening notes with a snap. The flaw that “hi-fi” brings to sound like this is to make it seem more like a sound effect than like what it is, a vibrating piece of wood in a brass pipe. Because the bari sax takes on a lower register, it is a relatively large piece of wood that Carter sets in motion. The difference in the 20’s sound is that these low notes and the high pitch that the reed’s snap produces have a little more juice than does the Opera. The sound is a fatter one than the Opera produces. The accordion sections in this piece as the 20 presents them are more emphatic sounding than when the Opera is playing them. But these instruments and the intricacies of their sound stop well short of being just a hi-fi sound effect.

Because of the additional current that this amplifier makes available, it is able to reproduce a cleaner, tougher sounding bass than the Prelude Reference. The bass drum in a recording such as the AThunder and Lightning Polka” on the RCA Red Seal vinyl *Strausse Waltzes [*Fritz Reiner and the Chicago Symphony Orchestra, LSC-2500] emerges with great authority played on the 20 — a good demonstration. The bass line in a pop song such as The Black Eyed Peas’ “Don’t Phunk With My Heart” [*Monkey Business*] announces itself with clarity and a lot of force. Here, I do not refer to force as in the door rattling dumb-thump beloved of dB-addicted goofs and their giant automobile sound systems (they didn’t start as goofs, but all that vibration not only destroys your hearing, I suspect it scrambles the cerebral cortex). Rather, what you enjoy is the sound of a bass musical instrument, whether it is a genuine guitar or an electronic simulacrum of generic bass instrument. Add a luminous quality to the 20’s power in a strong bass line and you are getting close to what this most recent iteration of the Prelude Reference does for you.

A well-recorded pipe organ is perhaps a better way of demonstrating bass response. Nicolas Kynaston playing Liszt's "Funerailles" on the Klais Organ of Ingolstadt, Münster [Carlton Classics 30366 00032] is a classical recording that stretches your system into the lower range of 25Hz to 40Hz. The 20 takes hold of the speakers in a way that you think is unlike anything you have heard before. While not magical, its reproduction provokes a visceral response to the music. Liszt uses the organ to create an up-front emotional response this music takes you by the shirtfront and rattles your head against the wall. So does your speaker system, if it can handle 30Hz or so. That is what the 20 does to such excellent effect.

Another example is the bass and percussion accompaniment to the musically simpler song "Fever" as Elvis Presley performs it [*Elvis Is Back* DCC Compact Classics LPZ-2037]. When the 20 handles this music, the accompaniment is gripping. Not only does one hear the wood of the bass viol and the brass of the cymbal (this is an excellent recording), but the 20's precision and power exercise absolute control. Thus, you get a realistic sounding bass and cymbal, not to mention of course, Elvis's voice up front and centre — this amplifier also presents an accurate sound stage. Transient response is the most important aspect of musical reproduction since most musical instruments at a given pitch sound very similar to each other — it is the initial sound of the note that tells one right away whether you are hearing a violin, organ or piano.

Shirley Horn's rendition of "If You Leave Me" from her album *You Won't Forget Me*, is one that begs for superb amplification — the CD is so well recorded that not only is Horn's voice warm, close and detailed, so is her piano and the accompaniment of drums, cymbals, wooden block, and the rest of the group's instruments. Yes, as with the other good amplifier's I have reviewed, you hear the cymbal's metal, the wood of the block, the complexity of piano and voice. But the 20, with its surplus of current on tap, etches these details more firmly.

Most of the Audiomat amplifiers are rated at 30 watts and have very similar sets of valves. The company presents the best argument I have encountered regarding the insufficiency of standard specifications for evaluating a piece of electronic audio gear. Only when you look inside and see the differences in transformers and capacitors in the power supply and in the output stages do you begin to understand how one amplifier whose specifications are the same as another can sound s different. The next step is seeing no difference but hearing a big difference because the transformers, although seemingly identical, are constructed of better materials — and beyond that are the capacitors and resistors, the material used in the circuit boards and the wire used to connect each part to the rest of the amplifier.

The Difference

Thus, the difference in sound and price. And, in the case of the Prelude Reference 20, thus the creation of an amplifier that is different from the Opera, but of equal merit — depending on your criteria. Now that the Opera has been released in a Reference version, it presumably combines the virtues of the Prelude Reference 20 with the magic of the 100 percent Class A Opera. As a result, the decision becomes just a little tougher, depending on what your budget dictates.

Specifications

Type: Integrated stereo amplifier

Tubes Compliment: Three 5965 for driver stage, four EL34 for output

Power Output: 30 wpc @ 8 Ohms (Class A up to 15 watts)

Frequency Response: 20Hz to 100kHz (-3dB)

Sensitivity: 350 mV

Inputs: Five stereo pair via RCA

Output: One stereo pair via RCA

Speaker Connectors: four for bi-wiring

Output Taps: 4 or 8 Ohms

Other:
Potentiometer Motorized ALPS
Input switches Lucas mechanical switch

Available Finishes: Brushed aluminum or anodized black

Warranty (North America) Basic: 90 days
Extended: 2 years

Weight: 47.2 lbs.

Dimensions: 17.5 x 7.5 x 16.75 (WxHxD in inches)

Price: $6,490 CAD

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