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## **Monophonic Amplifier Accuphase A-200**

# **Monuments**

By Wilfried Kress

**With the new monophonic Class-A amplifier A-200 Accuphase is to complement its range of reference audio components, whereby the Japanese have once again set a new benchmark.**

Confidence is indeed the beginning of all, i.e. the basis for our social existence and relationships. Principally, people want and must initially give their leap of faith to others while imploringly hoping that one's trust in someone will eventually not be disappointed. Still, sometimes we are to err and sometimes we are lucky. *C'est la vie*. In today's crazy times however, even most reputable institutions, which to this date would have been considered respectable ones, are prone to falter. In view of this aren't we even more so in the need of a specific feeling of confidence? In such a point of time we become aware how important it is that one can rely on a partner who does what he says and is not merely paying lip service to one's ideals. Who is not to change the horses every now and then or jumps on the bandwagon. Well, this applies to enterprises as it would apply to human beings: if a company or (audio) manufacturer is able to convey a straightforward and reliable attitude something very precious will emerge from this, generally known as "brand loyalty".

In 1972 "Accuphase Laboratory Inc." has devoted itself to high-quality music reproduction and has since followed up this objective with stunning persistence. Like for example SACD: after a quite early participation the Japanese have – even to this date – constantly been supporting this digital format, whereby in this context they never really cared to also consider the issue of "home cinema". When others began turning their back towards CD, Accuphase started to build its own, proprietary CD transports. And from a technological point of view, the engineers in Yokohama never rested on their laurels of the past but have rather devoted themselves to the refinement of the circuitries employed in their audio components. What I want to say is that those who are consequently putting the focus onto the essential will in the long run be rewarded by the consumer's faith.

I personally would never assume that a new CD player or amplifier from Accuphase could be inferior to its predecessor. Or that perhaps just the front panel has received some cosmetic upgrading whereas the inside was more or less subject to cost cutting. As long as Accuphase is not to be sold to some big global players of the audio trade, I simply cannot imagine such things to happen. In fact, the opposite is true because to this date the quality of the new line of reference components the Japanese launched in the past couple of years was clearly surprising as well as exciting us: the preamplifier C-3800 (issue 04/2012), transport DP-900 and DAC DC-901 (issue 01/2012). Add to this the new A-200, Accuphase's definite statement with respect to power amplifiers.

On the first sight, the A-200 seemed quite familiar to us, owing to the fact that it has exactly the same dimensions as its lesser powered brother A-65 stereo amplifier (issue 04/2010). Each chassis puts a hefty weight of 46 kg onto the scales, which may still be considered “moveable” in one or the other way. Well, thanks to the large handles and bars alongside the external heatsinks this is indeed the case. A substantial part of the weight can be attributed the huge encapsulated toroidal transformer in the centre of the case, which is accompanied by two big electrolytic “beaker” capacitors with 100,000  $\mu\text{F}$  each. This is quite typical for Accuphase amplifiers and apparently the engineers there do not favour the parallel array of lower capacities in the power supply.

Twenty power MOSFETs in push-pull mode are forming one amplifier assembly including its own heatsink whereby in each A-200 unit there are two of these combined in parallel configuration. So, the 40 output transistors per mono block are to provide plenty of power: Accuphase specifies the A-200 to deliver 100 Watt Class-A at 8 Ohm whereupon we measured a rated output power of 166 Watt into 8 Ohm, respectively 322 Watt into 4 Ohm. Do we really need more? Well, I personally don't but those who prefer to listen to punchy Heavy Metal, etc. all the time can never have too much power anyway. The employment of two A-200 monos in bridged operation may perhaps be a bit over the top for this purpose but Accuphase has also got some nice, big and more powerful A/B amps in its product line. Fortunately, there are absolutely no doubts coming up with respect to the “question of power” delivered by the A-200 because it features a very precise peak power meter to rely on. When classical music is playing most listeners will be happy with a mere 25 Watt and with 50 Watt one is definitely on the safe side. And who would really want to do without the magic of Class-A for something else? Power alone is in no way a warrantor for good sound. Even at low volume levels the A-200 is sounding superior to the A-65, whereby both amps have virtually nothing to do when rendering Paul Simon just playing his guitar.

The A-200 is said to be not only powerful but above all very “quiet” also. A statement of Accuphase declares the A-200 to be the amplifier with the lowest inherent noise in the 40-year history of the enterprise. Indeed, the signal-to-noise ratio is a stunning 6 dB better when compared to the A-65 and thus has set a new benchmark in our laboratory. This outstanding quietness can be attributed to the output stages working in parallel configuration as well as to the discrete design of the input stages and some modifications of the “gain management”. In preceding Accuphase amplifiers the input and power stages were made with a rather high gain factors, i.e. 12 and 16 dB. In the A-200 however the input stage takes the lion's share of voltage amplification in the amount of 22 dB whereby the output section is to contribute merely 6 dB. By means of this reallocation Accuphase can proudly assure the attenuation of noise by 33 per cent.

Another issue the Japanese had worked on was the reduction of the internal resistance in favour of a high damping factor, which actually was never a real highlight in power amps from this maker. For instance, the A-50 from the year 1993 had a damping factor of just about 160 whilst the U.S. and European competition were already claiming a factor in the region of one thousand and beyond. Still, we are all aware of the fact that with respect to passive cross-over networks in speakers there are – in 99 per cent of the cases – resistors in the tweeter's signal path for level adjustment. This means any (high) damping factor is rather useless at this spot. If on

the other hand speaker designers are employing extremely low-impedance inductor coils for the bass region then any amplifier output with snubber (aka Boucherot link) for the suppression of parasitic oscillations or a protection circuit with relay may tend to become a bottleneck. Well, no such relays can be found in the output circuitry of the A-200 but a heavy-gauche flat wire coil (see figure on next page) which is to achieve a damping factor of 1,000, whereby Accuphase specifies a factor of 400 for the A-65.

For the listening tests we had – for one month, that is – a complete set of Accuphase reference components at our disposal, including the clean power supply PS-1220. We used the XLR interconnects, which were supplied with the devices, as well as some power cords from HMS, whereby the professional set up of the chain was carried out by Winfried Andres from P.I.A. [*the Accuphase distributor in Germany*]. Once again it became very clear that the Magico V2 and Accuphase is a fine match which plays together very well. After some days of warming up (please see “Surrounding Conditions” elsewhere in these pages) the entire system sounded simply gorgeous. As far as power amplifiers are concerned I’m always trying to be prudent with respect to an absolute judgement, owing to the amplifier-speaker interface in which the impedance plays a role that should not be ignored. Therefore, either bi-amping or bridged operation with two inexpensive power amps may be beneficial in some configurations. But after having gone through a direct comparison between the A-200 and the Souldution 710 I came to the conclusion that with amplifiers of this calibre one has reached the absolute summit of high-end. The Souldution played a tad more prominent whereby the Accuphase excelled at its more colourful and refined rendition.

The keywords describing this experience are “absolute control” and “unshakeable aplomb”. The A-65, too, is brilliant in this respect but doesn’t get as close to the performance of the A-200. For some speakers it’s a big compliment to say “They are in the room but they have actually nothing to do with the sound”. The same applies to the A-200 which likewise “doesn’t make an appearance”. Everything on the virtual stage in front of the listener is simply “there” and comes along absolutely effortless and like a duck takes to water. This amp can flex its muscles if music is to demand it, but not like a poser who elbows his way to the foreground. With the A-200 impulses don’t “bang”. They just happen, if you know what I mean.

With an amplifier of this class there is really no need to worry about neither “bass-midrange-treble” nor “auditory spaciousness” or “soundstage”, to be honest. Furthermore, the A-200 is never going to play music like one or the other notorious “big amp” from North America, which although being oh so powerful rather tends to be far away from “swinging”. This Accuphase amplifier is definitely committed to the classic ideal of high fidelity: nothing added on, nothing left out – in this respect it is better than the rest of the world.

## **Conclusion**

With the A-200 Accuphase has completed its reference line of audio components. The unique Class-A mono amplifiers are definitely on par with the preamplifier C-3800 and the digital combination DP-900/DC-901. Together with the outstanding measured values it can without any doubt be considered “State-of-the-Art”; whereby it sounds in no way technical but highly elegant: “Class-A” can simply not be replaced by anything else.

## **Surrounding Conditions**

It should be common knowledge by now that even the most sophisticated high-end components do not deliver highest performance right from the start by simply pressing the “On” button. They often have to be treated rather sensibly and thoughtful. It’s like with good wine which we would fetch from the cellar in due time, have it slowly reaching its optimum temperature and then, depending on the vintage, have it decanted or not and eventually served in a suitable glass. Then we hope the wine to have “blossomed” in the meantime and in the end is worth the money spent. The noble Accuphase chain also is rewarding a few days of warm-up with considerably finer and more colourful playback. It takes some time until technology has put itself into the background and the magic comes on instead. Visitors of high-end trade fairs may perhaps remember that music sounded best on the last day, short before the equipment was to be disassembled and packed again. Therefore, except for the power amps, all components were constantly hooked up to the mains during the period of our listening tests.

On the last day we carried out several experiments in order to find out what may possibly damage this wonderful sound picture. If the C-3800 – certainly not a mimosa – is switched off and on again, then the sonic results were rather “technical” and not as controlled as before. The same procedure was less dramatic with the DAC, yet more pronounced with the transport. After having all three components switched off from the mains the fascination was in some way damaged, while furthermore disconnected from the PS-1220 the entire magic was gone. Back on the PS-1220 again it immediately sounded less technical. Also, switching interconnects back and forth was sonically noticeable, even with the unsuspecting speaker leads. These experiments have clearly demonstrated how essential a good and constant power supply is and that absolutely stable operating conditions are indispensable for any electronic audio component.

## **Lab Report A-200**

Irrespective the higher output power, it’s the by 6 dB better signal-to-noise ratio as well as the perfect spectrum of harmonic distortion where the A-200 can set itself apart from the A-65. The intermodulation distortions are the same with both amps and the bandwidth has been well realised from our point of view. In particular with respect to the signal-to-noise ratio and the harmonic distortions of the A-200 Accuphase has achieved a new record in our laboratory – congratulations to Yokohama!