

## Continuity

### Test: power amp Accuphase A-70

#### **Perfect technology-transfer: the A-70 profits strongly from the innovations, which Accuphase developed with the Mono blocks from A-200.**

The age of information doesn't just cause enthusiasm but also in some places discomfort. Hence the technical progress isn't much different from the Euro. There is so much what was yesterday's matter of fact is suddenly called into question. But from the hard times, which people like to forget about, was already the talk even before the Lehman-bankruptcy and the sovereign debt crisis. What remains after all this is the vague feeling, that there is something wrong – when tectonic shifts cause the floor under one's feet to move, it is easy to lose footing.

Even the High Fidelity is currently being completely revised. Therefore, don't we as well need dependable light houses to show us the way? Institutions, that preserve the high end spirit instead of exploit it, who don't follow every trend, stand for something and have proven this on more than one occasion. Those are admittedly rare, but there is one name that comes to mind: Accuphase.

That is less because of the tradition of the machines with the champagne colored fronts, but more because of the continuity, which Accuphase demonstrates daily. This continuity is rooted in the permanent strive for improvement, the imploring effort to offer the customer an even better equivalent.

In the colorful market nowadays such a mindset is anything but self-evident. Probably the social education worker Mr. Gmeiner is right: "Everything big in our world only happens, because someone does more than he or she must."

Accuphase has in the last years presented a complete line of reference-products, sinfully expensive, but also absolutely fantastic. The end of the line is made of the class-A mono blocks A-200 (Magazine 2/2013), with which Accuphase has made again a decisive step forward. The nice thing about such for us average mortals "unreachable" products is that they act indeed as technological-godfathers in Yokohama and not only on paper: the A-200 monos delivered the exact blueprint for the revision of the Stereo-poweramp A-65 to A-70.

Even their predecessors already counted to the Accuphase classics par excellence, which considerably contributed to making the class-A-technique through perfect operating reliability completely socially acceptable. The round dance was opened by the A-50 in the year of 1993. Since then Japan's big class-A-Stereo-power amp has every five years been revised and refined. Not only in the technical department but also the appearance has progressed. The A-65 and the new A-70 are instead almost identical. Also the fundamental amplifying concept is the same: 10 pairs Mosfet-Endtransistors (K3497 and J618) provide full capacity, on their side is a central organized, capsuled toroidal-transformer and two large Elkos with unchanged 82.000 Mikrofarad capacity each. The class-A section lies still at 60 Watt at eight Ohm, from this current feedback Accuphase promises itself a highly accurate phase.

New is with A-200 incorporated "Gain-Management" which means: Which section amplifies how much, how does one distribute the work for the input and capacity amplifying levels? Accuphase used to incorporate very classic comparable amplifying factors, 12 dB in the input, 16 dB in the output. But

the Japanese realized that it is sensible to relieve the output stage from the current amplification, because the input amplifier is more suited to this cause. This input amplifier can now in the A-70 contribute 22 dB to the total amplification, the output section merely 6 dB. Accuphase wants to even further diminish the noise floor of the already very quiet A-65. With the A-200 the Japanese have tackled a topic, which was earlier called the Archille's heel of their power amplifiers: the damping factor.

Operating reliability is priority in Yokohama, which is why Accuphase always had a relay in the speaker output. Just in case for all possible situations, or even the worst possible situation, the accidental short-circuit through the careless owner. Such a relay is anything but ideal for the internal resistance and when the coil of the Boucheron-link in the output makes its process dependent on the frequency, then the damping factor is neither high nor linear. Therefore there are no more relays in the A-70 protective circuit, but modern electric Mosfet switches. Furthermore, the producers looked out for as large cross sections as possible in the signal path, for example with the thick flat-wire-spool. With the now reached damping factor of 800 that is double that of the A-65, the topic should be once and for all closed.

Just like its predecessors the A-70 belongs to the all-rounders of the power amp-line and the equipment leaves no wishes unfulfilled. The input is switchable from symmetrical to asymmetrical and one can even select the XLR-Pin-allocation via a slide switch. For the amplification there are four levels to choose from max./ -3/ -6/ -12 dB. Three operating methods are possible: the normal stereo input, >>Dual Mono<< for bi-amping and the performance-enhancing bridge input, which more or less represents the exception. The large loudspeaker clamps for bi-wiring are available twice.

Typical for Accuphase are the perfectly made performance indications, with bars for the decibel and numerical Watt display, which one can view on its own or both at once. One can even turn off all of them, but the whole thing is optically so very discreet that one has no desire to do so. The measurement covers three switchable performance parts up to 10/100/1000 Watt and is highly precise; the difference to our UPV-Analyzer in our lab (which costs double as the A-70) lies in the first measurement range in the hundredth, in the second range at one to two one-tenth and even at full capacity at about one Watt, meaning less than 0.5 percent.

For the test we received next to the A-70 also a preamp, C-3800 and the CD/SACD-Player DP-720, the power supply PS-520 for source and preamp is already present in our studio. Similar to the A-65 Test (Magazine 4/2010) the loudspeaker partner was a Magico V2, the wiring was conducted via Accuphase-cables and HMS Gran Finale Jubilee. We gave the set up ample time for warm up and play practice, which can truly take a couple of days.

The Accuphase-trio then played constantly: very cultivated, wonderfully balanced, in harmony with itself. The control of the >>big Power Amp<< was apparent, which radiated sovereignty, had color, without artificial beautification. The once slightly roundly-soft character of the A-50 has its followers, I know, but I wouldn't miss it for a second. And even without a direct comparison with an A-65, I tentatively hypothesize that the A-70 objectively makes everything a touch better – that she has without a doubt inherited from the A-200. Within the set up so that we could place the position of the A-70 we even exchanged the power amps, herein I was especially curious about a comparison: how my A-20V from the year 2000 would hold up. That the A-20V has a lower output, was something we tried to our best to keep in mind and therefore selected a musical program which wouldn't demand more than two to three Watt – this was for both power amps truly a very easy exercise. Still the A-70 continued to show a little more stability, seemed more mature – this was supposed to be expected. But that she also plays way more precise, especially in the high notes, and simultaneously appear less

>>technical<< was a surprise. After all the A-20V is still a super-clean constructed power amp with first class data. But the time also progresses for her sooner or later. A tidbit on the side: the C-3800 had to leave us during the testing procedure and it became once more clear again how paramount a first class preamp is for the end-result. This is my humble experience, but the big amplifier manufacturers of the high end such as Accuphase, Mark Levinson, Pass, Solution or Spectral, they all are aware of the importance of the preamp – I am with good company.

#### Conclusion

The A-70 has profited immensely by the technology transfer from the A-200 Mono block, the entire package presents itself as harmonious as never before. Without doubt the best Class-A Stereo Power amp from Accuphase up until now and thanks to the low Yen exchange rate the formidable A-70 is today even more affordable than its predecessor.

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