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Accuphase Class-A Stereo Power Amplifier A-45

Gentle Giant

by Dalibor Beric

When Accuphase is about to launch a new power amplifier, be sure the entire hi-fi world will be all ears! Stereoplay however was the first to audition this majestic machine.

Accuphase: this name is certainly commanding everybody's respect as it stands for model consistency, longevity and an always recognisable, very good sound. Yet it may sometimes be overlooked that there is nevertheless innovative engineering too in far Japan, where new ideas are masterly combined with tried and tested circuit designs. A nice example is the sophisticated Class-A technology in the recently launched power amplifier A-45.

In this mode of operation a permanently flowing high bias current is taking care that the transistors are always working in an optimum temperature range. The advantage is, by nature, that much less distortions can be achieved if compared to other amplifiers operating in conventional AB mode, for instance, in which distortions have to be compensated or reduced by the rather rigid means of negative feedback. There is no denying the disadvantage of Class-A though, namely the fairly high energy consumption and hence enhanced dissipation of heat, which eventually requires a much more solid amplifier construction at comparable output power.

Since with any Accuphase solidity can be taken for granted, we were more interested in circuitry details, like for example the automatic function for controlling the bias current in order to keep it totally stable and constant even when the surrounding temperature is changing or the amplifier running hot.

This measure is said to improve the signal-to-noise ratio and with the same goal in mind Accuphase also provided the A-45 with its proprietary "Multiple Circuit Summing" technology (MCS+). By employing fully balanced input stages Accuphase has managed to kill two birds with one stone: firstly, MCS+ yields a substantially better signal-to-noise ratio because the uncorrelated (random) noise of the parallel circuits are partly deleting each other whereupon the (correlated) music signals are cleanly added in the end. Secondly, MCS+ is leading to perfect conditions for any connections. It's because in the A-45 there is not merely a balanced (XLR) input behind which things are going the normal, i.e. unbalanced, way again. No, the two balanced signals do encounter each their own circuitry up to the drivers for the MOS-FET power transistors. This measure ensures that noise can be greatly reduced not only in the input section but along the entire amplifying stages. Evidently, Accuphase considered this worth the efforts including the doubled quantity of parts and components required.

Very nice and practical is the input sensitivity selector on the front panel where gain can be adjusted in four steps. This feature can be very useful indeed if the A-45

is to be combined with power amplifiers from other makers, or if an individual sound tuning is required when used for bi-amping. Provided a speaker system comes with the possibility of having the midrange-tweeter frequencies and basses separated, two A-45 amps could be employed and gain accordingly adapted for each range, as to your liking.

An additional mode selector switch on the rear panel allows, among other options, dual-mono operation (again with two A-45) whereupon both channels are switched to the amp's left input jack (balanced or RCA). This configuration is ideal for vertical bi-amping because any sound-deteriorating adapters can thus be avoided. In this mode of operation each A-45 can drive the mid-high frequency and bass sections separately, at each speaker that is. Horizontal bi-amping, for which one A-45 is driving the mid-high frequency section of both speakers while the other A-45 is taking care of the basses, is also possible yet this configuration would require altogether four connection leads to the pre-amplifier.

The A-45 will enlighten you with an abundance of true sound colours

In our listening room the A-45 was hooked up to our "workhorse" Thiel CS 2.4, yet in spite of it's not so voluptuous power rating at higher speaker impedances, it was immediately clear that this amp does certainly not need any backing whatsoever. Even at hefty dynamic attacks, like with Tosca's "Every Day And Every Night" (Dehli 9, !K7), it was never forced to its knees.

Nevertheless, the A-45 really excelled when it came to painting sound colours in all shadings you could think of. It was a real treat to have the Auryn Quartet playing "Beethoven's String Quartets op. 18, Nr. 1-6" (Tacet) bewitching us through this amp! Eventually, the A-45 managed to convey this recording with a marvellously smooth string sound whilst the instruments were positioned on a particularly large soundstage.

In this respect the Accuphase even gave our tried and tested AMP mono amplifiers a run for their money. Although the latter seemed a tad more powerful here and there, they certainly could not compete with the sovereign, elegant and smooth performance of the A-45. All this thanks to the sophisticated Class-A circuitry which is in fact offering the Accuphase-sound by square.