

QUAD MODEL 606 POWER AMPLIFIER



As recently as in our June issue, when describing the then new Quad 306, I hinted that the 606, its big brother, was imminent. Although the external appearance and of course the physical size might suggest a more distant relationship, these two really are brothers at heart. Because of this (and the usual editorial pressure on space) perhaps I may be forgiven for referring the reader to that previous report, for to embark on another full description would be needlessly repetitious.

The design philosophy and the basic circuit are as before but this time the 'current dumping' ability has been trebled by paralleling three pairs of output transistors in each channel and providing them with a greatly enlarged power supply. How large can be judged from the weight of the amplifier which also approaches three times that of the junior model. Even so, for an amplifier which can put out over 200 Watts of music per channel when asked, the 606 is remarkably compact. This has been achieved by making virtually the whole amplifier perform as its own heat sink. The top and bottom covers are heavy alloy castings, deeply vaned to increase the radiating area and finished in dark charcoal grey Nextel paint. Internally these covers bolt to a pair of 5mm thick U-section castings on which are

mounted the power transistors and the glass-fibre printed circuit boards carrying all the smaller components. Between them sits the massive power transformer and, bridged over it, a steel platform holding the two pairs of 6,800 microfarad reservoir capacitors and rectifiers providing each amplifier with positive and negative 55-Volt supplies fed from separate windings on the transformer.

The wrap-around centre section of the 606 is finished in a lighter grey metallic paint with the QUAD 606 logo in a somewhat darker shade, less prominent than it appears in the photograph. There is a small green LED recessed near the top lefthand corner which illuminates when the amplifier is operational. A deeply recessed panel at the rear carries all the connections and the thermal cutout, all identical with those on the 306 but, in this case, the now obligatory On/Off switch is also at the rear. Incidentally the deep recess makes changing the main fuse rather more of a tricky job. As with the 306, power output is a complex function of load and duration and so we again publish Quad's own chart (Fig. 1).

Summarizing in the more practical terms of reproducing music, this amplifier approximates to 150 Watts-per-channel into 8 Ohm loads and over 200 Watts into 4 Ohms. This adds up to a lot of energy, easily

SPECIFICATION

Power output: approx. 150 Watts per channel into 8 Ohms (see Fig. 1)
Total harmonic distortion: less than 0.01% at any level up to 130 Watts
Hum and noise: -105dB weighted ref. 50 Watts
Input sensitivity: 0.5V for 140 Watts; loading is 20K
Frequency response: -0.25dB at 20Hz and 20kHz
Stereo separation: -85dB at 1kHz
Stability: unconditionally stable with any load and any signal
Dimensions (W x H x D): 321 x 133.5 x 239.5mm
Weight: 12kg
Manufacturer: Quad Electroacoustics Ltd., Huntingdon, Cambs. PE18 7DB
UK retail price: £449.00

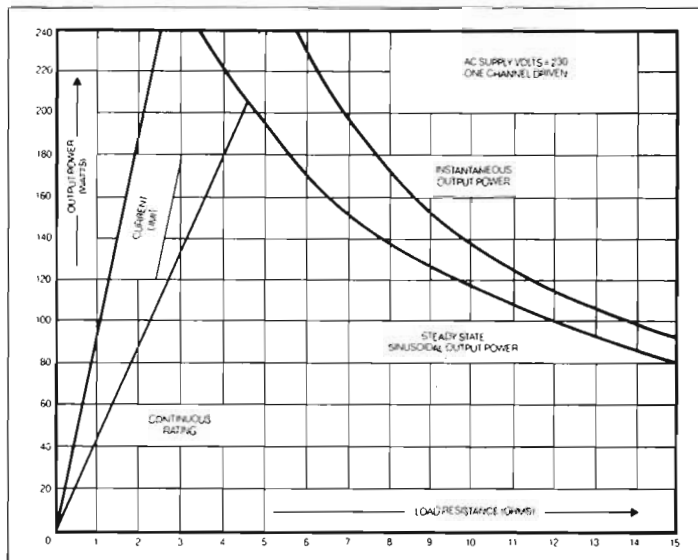


Fig. 1 Power output versus time and load impedance

capable of inflicting serious damage to many loudspeakers in a fleeting careless moment and no-one should buy it under the impression that, because it is Quad's most expensive model, it must be the best. My careful listening tests have been unable to detect that this amplifier does anything to change the character of the signal fed to it—unlike a few others, praised in some quarters, which warm up the bass by allowing damping to fall off at low frequencies and soften the treble in some loudspeaker crossover areas where impedances drop. None of this for Quad. In quality of sound, the Quad 606 exactly

mimics the 306 and the professional 520 (which simple statement puts it on equal terms with the best sounding amplifiers in the world) and so, if you don't really need its prodigious power, save your money by settling for the less expensive model.

If, on the other hand, you have suitable loudspeakers and like to listen loud, you will still be able to save, for at £449 the 606 can see off quite a number of rivals costing thousands. In a nutshell, economic, elegant, truly excellent and—British. We shall see and hear a lot of the 606 in the coming years.

Geoffrey Horn.

MITSUBISHI DP-409R CD PLAYER



This new CD player from Mitsubishi is particularly noteworthy in being a five-disc magazine-loading autochanger. I must admit that even in the heyday of 78rpm and LP auto-changers I was a reluctant user. I preferred the ritual of playing one disc at a time, returning it speedily to the safety of its sleeve before starting

the next, to the hazards of one disc falling on top of another and possibly rubbing grit into it. So what would my attitude be to a CD autochanger? Five hours of music at the touch of a switch: the mind boggles.

Well of course I took this Mitsubishi DP-409R like a duck to water.

SPECIFICATION (Test Results in brackets)

Frequency response: 5-20,000Hz ±0.5dB (agreed)
Total harmonic distortion: 0.003% (0.004%)
Signal-to-noise ratio: 98dB (93dB)
Channel separation: 98dB (92dB)
Output: 2V fixed (2.35V)
Dimensions (W x H x D): 424 x 105 x 340mm
Weight: 7.5kg
Manufacturer: Mitsubishi Electric Corporation, Japan
UK distributor: Mitsubishi Electric UK Ltd., Hertford Place, Maple Cross, Rickmansworth, Herts. WD3 2BJ
UK retail price: £299

Switching between either discs or tracks (or both!) gives a new dimension of freedom—and the ability to pre-select a sequence of up to 30 tracks chosen at random from all five discs must surely satisfy even the most demanding amateur (or professional) disc jockey. Also any worries about disc handling and the unwanted ingress of dust were soon put to rest. The disc magazine has flip-out trays which hold the discs

securely without any risk of scraping against each other, and dust is quite effectively excluded as the discs glide back into the magazine when not actually in play. An ingenious arrangement moves the disc scanning mechanism up into line with the disc selected for play at any time, and all performance parameters are identical for all the discs. It does seem a pity, however, that the Mitsubishi magazine design is completely incompat-