

# Arcam's tower of **POWER**

Arcam divides its acclaimed P7 power amp into monoblocks for the ultimate stack, topped off by the new C30 pre-amplifier. Review by Paul Miller

Available in both silver and black, the stereo version of the C30 offers 5 line-level plus 2 tape inputs and a m-m/m-c disc stage. Both balanced and single-ended outputs are joined by another six channels (centre, sub, surround and back) with Arcam's multichannel module installed. The P1 power amp has 12V triggers and bi-wire speaker terminals.



## ARCAM C30 PRE-AMP/P1 POWER AMP

PRICE	£1500/£1100
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WEBSITE	www.arcam.co.uk

**S**how me a multichannel power amp and I'll show you a very heavy box, as Arcam's popular P7 model serves to demonstrate. Separating this

monument of engineering into multiple monoblocks is not only better for your back, but also opens up new possibilities for the modern system. For example, you might arrange them in a stack with long cable runs to the speakers or, alternatively, you can use long interconnects to local power amplifiers situated bang up against each loudspeaker.

Aesthetically, the £1100 P1 is as plain as you like while operationally it's as close to plug-and-play as you'll find. The internals are clearly derived from the P7, with same bipolar Sanken output stage, but it's a tweaked and more efficient design. Larger heatsinks accommodate its higher power output (170W vs 150W for the P7) and while the single, dedicated toroidal transformer is not as big as the monster weighing down the P7, it is proportionally more generous for an 'equivalent' mono amplifier.

By contrast, the matching £1200 C30 pre-amplifier is a busier affair, dominated by a bold and usefully comprehensive fluorescent display and complemented by one of Arcam's CR389 IR handsets. Now, despite what you might read elsewhere, the C30 is not an AV8 without its decoder, but more like an A32 integrated minus its power amp. The upgraded pre-amp board is fed from a much improved and highly regulated power supply and features software control over volume, tone and balance, input selection and trims.

The latter adjusts the gain of the C30 so that, as you switch from one input to another, it's possible to avoid large changes in volume. Round the back you'll discover both 'buffered' and 'unbuffered' outputs, the former ostensibly better suited to driving long interconnects. In practice, however, there's no appreciable difference in performance.

That's the stereo C30 in a nutshell. Expanding it for multichannel duty is achieved with a £350 upgrade (or £1500 from new) that brings two 8 channel inputs and one 6 channel output which, combined with the existing stereo board, brings the tally up to 7.1 channels. Oddly enough, however, the topology of this multichannel add-on bears rather closer resemblance to that of the AV8's preamp than the C30's native stereo board. This explains the differences, and mild superiority, of the centre, sub, surround and back channels over the front pair observed in the lab tests.

## ON THE BENCH

Easily exceeding its 170W rated specification, the P1 delivers 1x230W/8 ohms and 1x375W/4 ohms, a performance that increases under dynamic conditions to a maximum of 280W and 520W (11.4A) into 8 and 4 ohms, respectively. However, this drops back to 208W (10.2A) and just 40W into 2 and 1 ohm loads, courtesy of Arcam's protection regime. I would expect an 'unconstrained' P1 to deliver in excess of 20A (~400W) into 1 ohm for 10 milliseconds at 1% THD.

It's all a matter of balancing the ability to grapple with very tough loudspeaker loads against long-term product reliability.

There's some slight increase in distortion at low and high power outputs with a decent minimum of 0.001% through the midrange at ~30W/8 ohm, rising to just 0.004% at 20kHz. The C30/P1 combination shows a greater treble roll-off via the preamp's buffered outputs, although at just -0.1dB/20kHz, you'll not hear it! Via the unbuffered front outputs, the response remains flat to -0.1dB/90kHz, as it does through all remaining centre, surround, back and LFE outputs.

The front (stereo) channels are also uniformly 0.4dB below the output of the centre, surround and back channels where distortion, already low at ~0.001% through the midrange, falls still further to a remarkable ~0.0004% (re. 1V out at 1kHz). Channel separation is also some 5-10dB better on the centre, surround and back channels at >100dB across the audio band.

## PERFORMANCE

It did not take long for our listening panel to rate the P1 power amplifier as the hero of the C30/P1 combination, and it was no great surprise to discover its real potential being realised when driven via Arcam's costlier AV8 processor. Nevertheless, the C30 has its place in a system driven from the multichannel outputs of an integrated DVD-A player (instead of a player/processor combination) such as Arcam's DV79 [see AVTech, May 2004]. Multichannel music and movies alike enjoy a combination of smoothness and muscle, a palpable sense of raw energy and power

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that's held in abeyance by an amplifier that's rarely stretched to its limits.

And, although multichannel power amps like the P7 hardly have poor separation figures, there's no escaping the perceived improvement in both control and isolation of each speaker that true monoblocks like the P1 can deliver. Listening to the opening scenes of *Pitch Black* (Special Edition), we were gripped by the sounds of the ship breaking-up but, simultaneously, struck by the clarity of dialogue between the pilot and crewmate as they struggle to maintain the pitch of their craft. It's this ability to separate-out a myriad details and yet maintain a unifying integrity to the soundfield as a whole that puts this combination up on a par with the very best that's available. What's even more astonishing is the extra transparency and depth to the sound achievable by driving the P1's from an AV8...

## AVTECH SAYS...

Arcam's P1 monoblocks have been a long time in gestation (the project was even delayed while resource-hungry products like the DV79 were given priority), but the wait has not been in vain. Of course, while the C30 might be entertained in a variety of roles, a 5 or 7 channel system upgraded with an equivalent number of P1's represents a costly venture. Should you take the plunge however, your home cinema should be set for a very long life of awesome-sounding movies. ■