



KLEIN & HUMMEL O300D

Three-way nearfields are rare these days but the ones tested here are hardly ho hum.

Text: Brad Watts

► Klein & Hummel isn't a brand that immediately springs to mind at the mention of studio monitoring – until now that's been to the detriment of Australian studios. The German speaker manufacturer has a long and distinguished history in its homeland for good reason – it designs and manufactures incredibly competent monitors. Fortunately these systems are now available in Australia and will, without doubt, change more than a few people's opinions as to what great monitoring entails.

For the purposes of appraisal, a pair of K&H's O300D monitors came knocking on my studio door. As I opened the packaging I initially expected yet another pair of powered two-way nearfields (that's right, I hadn't done my homework before receiving them). My interest was piqued when I realised these little monsters were a three-way design. My attention increased again when I noticed the second monitor was the mirror reverse of the first. Wow, these guys actually make a left and right hand model! Very nice. It was at this juncture I figured I should find out the retail pricing for the O300D, which turned out to be rather surprising as well (\$5499 each). To state the obvious, these monitors are not at the budget end of the scale, but after hearing them you could quickly come to the conclusion that they're worth every penny.

THREE-WAY VS TWO-WAY

So why should a three-way monitor outshine a two-way design? In theory, and practice, there are more drivers to reproduce particular frequency ranges. Essentially, each driver has less work to do, without extending into the extremities of each driver's range, and thus rendering themselves less susceptible to artefacts such as doppler distortion and cone resonance. Doppler distortion occurs, for example, when a low frequency driver is forced to produce midrange and low-end frequencies simultaneously – the mid frequencies will begin to be modulated by the more robust low frequencies. Interestingly, both the mid-range and top-end drivers are sealed within their own personal compartments inside the cabinet to further reduce the effect of cabinet resonance produced by the bass driver. Further to the cabinet design, the O300D is a completely sealed box – or what's often known as an 'infinite baffle' design – no ports or reflex systems whatsoever. In fact, there's special mention in the manual to ensure any of the

plastic plugs used to fill mounting screw holes are present, otherwise you'll experience 'air noise' and degradation of low-end response. As for mounting options: there's mounting provision enough to get these monitors a job with Circus Oz.

The cabinets are built from MDF and are magnetically shielded for placement near video equipment and display units. Colour schemes include charcoal grey enamel, silver enamel and a charcoal flock covering (handy for monitors that find themselves transported frequently). K&H recommends the cabinets be placed horizontally, with the mid and high range drivers positioned toward the outside of the stereo image. For multi-channel systems K&H deems either a left or right model be used vertically for any centre-channel duties. The front baffle is constructed of a material the company claims to be called LRIM or Low Resonance Integral Moulding. This dense plastic integrates waveguides for both the high and midrange drivers – the high-end waveguide being elliptical and oriented to follow the recommended horizontal positioning. All drivers are individually powered, with the eight-inch low-end polypropylene driver driven by a 150W (250W peak) amp, the three-inch soft-dome midrange driver is saddled with a 65W (75W peak) amp, and the one-inch titanium dome tweeter powered via a 65W (110W peak) amplifier. All amps offer less than 0.1% THD and all are limited against overload.

The cabinets are surprisingly small at 383 x 253 x 290mm. I say 'surprisingly' because the controlled bottom end emanating from these boxes is quite astounding. In all honesty, I don't think I've heard such bass response from a unit that is a mere 28 litres and fully enclosed – my opinion was shared by everybody I auditioned the monitors with.

Crossover points are set at 650Hz and 3.3kHz. The use of a metal dome tweeter also had me reconsidering my opinion of titanium high end. I usually associate titanium drivers with increased listening fatigue but didn't seem to notice this nearly to the same extent as with two-way metal-dome designs. No doubt distortion anomalies and crossover points endemic in two-way designs are more responsible for listening stress. I could (and did) listen to the O300Ds for long periods and could happily have listened for longer.

Connectivity to the units is via a standard XLR that

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will accept both voltage and digital (AES/EBU) signals. Further digital input can be made via BNC connections, carrying S/PDIF or AES-3id, with a screwdriver-accessed control for deciding which part of a stereo signal the monitor will utilise – the choices are analogue, digital left, digital right or digital mono. The D/A system is 24-bit Delta-Sigma and will follow sample-rates from 32 through to 96kHz. The rear panel houses a seven-pin female XLR jack for inputting directly to the three internal amplifiers. K&H suggest FIR filtering technology – as seen in the company’s PRO C 28/Digital FIR Controller – can be used to build room-specific FIR filter setups to match any desired room equalisation (a similar concept to the JBL 4308 reviewed a couple of issues ago). Using this connection system renders the analogue input stage, filters, crossover and limiters inactive, as these functions can be taken care of via the PRO C 28 – an exciting option for those who can afford it. For the less fiscally endowed, EQ adjustments can be made to the O300D via three screwdriver accessed switches, and K&H provides setup instructions for wall, free-standing and corner placement. The rear panel also sports a ground-lift switch, as the inputs are a transformer-balanced and floating design. A small pot provides volume attenuation from 0 to –24dB.

KLEINING UP

By now I’ve dropped enough obvious hints as to my impressions of the O300D, but to reiterate and fill in a few blanks, these monitors more than astounded me. I was pretty shocked to tell the truth – particularly regarding the smooth and effortless bottom end in these monitors. Then there’s that not-nearly-as-harsh-as-I-thought-it-would-be titanium top-end combined with a very precise midrange. ‘Effortless’ would be my first description of these boxes. They offer amazingly realistic fidelity at some quite staggering volumes. My first comparisons would be with the smaller two-way Dynaudio Air Systems, along with the ATC Active 20 Pro and, to a lesser degree, my Quested 2108s (frankly, they smoked the Questeds but I know and own those). Three drivers is no doubt a cleverer way to go but it’s a much more expensive path. It’s also usually a lot larger and heavier than the O300D. These are compact enough to straddle the meter bridge and enormously enjoyable to use. ■



NEED TO KNOW

Price

\$5499 each

Contact

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Pros

Accurate.
Enjoyable.
Enviably.

Cons

Pricey, but then, the good stuff usually is.

Summary

A compact three-way is a fairly rare beast in the monitoring market, but this K&H offering is well worth lining up against the more-feted two-ways in this price bracket. Highly recommended.