

product review

A head-worn mic for broadcast

DAVE FOISTER examines evidence of a breakthrough in head-worn microphones — the DPA 4088

The art of hiding microphones on the human body has seen many manifestations, from bits of string round the neck to tie clips and wires round the hair line. All these have tried and succeeded. But, like bra straps, it seems that the practical considerations have now started to outweigh the assumption that the supporting mechanics must never be seen, and it's now acceptable to admit that somebody's wearing a microphone, although the realisation of that fact is not as disappointing as it is with bra straps.

Some artists specifically prefer to use a visible microphone to assist in the pretence that they're actually singing. Thus the headworn microphone, with a miniature boom suspended from the ears, has become commonplace. For

placing and treatment. The big plus of an omni is its absence of proximity effect, the inevitable artefact of other first order microphones that artificially lifts the low frequencies — the last thing you want for natural voice reproduction. It's also a given that if you back off a cardioid sufficiently to eliminate proximity effect, you're liable to have lost the separation advantage given by the directional polar pattern. Add in the greater susceptibility of a cardioid to pops and blasts and it starts to get hard to see why you'd want to make the swap in the first place.

The DPA Solution

The 4088 and its mounting hardware set out to bypass all this. The bass response of the microphone is carefully tailored, and designed to give a linear

response at a distance of 2-3cm from the sound source. Specifically, its frequency response is quoted as 20Hz-20kHz, and only 500Hz-20kHz to within 2dB, with a soft boost around 15kHz. So don't try using it in any other way unless you want a really thin bodiless sound — this is very much a tool for a specific job. In the same way, real care about position is needed, and with this in mind the boom is 3cm longer than the otherwise-identical boom supplied with the more familiar omni 4066. The manual is insistent that the capsule should be positioned 2-3cm from the corner of the mouth, not actually in front of it, and adjustment is provided in the boom to allow this.

obvious stage applications for the 4088, including broadcast presenters. Those following F1 will have noted that the anchor team now present from the open spaces of the paddock rather than a studio, and have taken to wearing headband microphones to make this possible. In these types of noisy environments the 4088's noise-rejecting characteristics would be ideal, so I would expect to see 4088s on your screens before too long.

I forced the 4088 on somebody who'd never used anything like it before, being more used to tieclip and stand-mounted microphones, and after brief initial misgivings he forgot it was there, so comfortable is the ear-mounting harness. Subsequently the enhanced freedom of movement during presentation and singing was matched by the sound quality, which was exceptional — more than equal to that from the usual (quite decent) stand microphone, with real clarity and realism coupled with the added benefits of consistency (it's always the same distance from the mouth regardless of the wearer's movements), isolation, and increased gain before feedback. DPA claims a 20dB improvement in ambient pick-up rejection, a figure not explainable by the polar pattern alone, but quite possible overall in view of the frequency response curve.

Since this is DPA, the usual vast range of accessories is available; the microphone is supplied with a MicroDot connector fitted, special tools for tightening this on to the chosen adapter, and several



spare foam windshields. Adapters are then available for connection to virtually any wireless belt-pack you care to name, as well as XLRs for wired connection to a phantom-powered input, with or without belt clip or mid frequency attenuation. Before adding any of these, the whole thing weighs a mere 14g, and is available in black or beige, with a choice of coloured windshields.

Conclusion

DPA is already a strong, possibly dominant, presence in the quality end of the miniature microphone market, and the 4088 can only add to the appeal of the range, making this style of microphone an appropriate choice in even more circumstances. 📻

- Dave Foister has produced, engineered, and played on innumerable recordings in the classical, commercial, folk, jazz, and TV music areas, as well as live sound mixing and theatre sound operation. He currently manages the Guildhall School of Music & Drama recording department.

For broadcast, headband microphones make presentations from noisy environments easier and I would expect to see 4088s on your screens before too long.

professional use, these are almost always miniature omnidirectional condenser capsules, and as kings of the omni, DPA long ago established a reputation for making tiny microphones work under extreme conditions in this and other, more hidden, applications. But as the potential markets for such semi-visible microphones expand, there's an increasing need for something that can manage to reject pick-up of high ambient sound levels in a way that omnis find difficult, and with this in mind DPA has introduced the 4088 — a familiar physical configuration, but with the almost radical departure of a cardioid capsule on the end of the boom.

The characteristics of a cardioid at this close position are sufficiently different from those of an omni to require different

response at a distance of 2-3cm from the sound source. Specifically, its frequency response is quoted as 20Hz-20kHz, and only 500Hz-20kHz to within 2dB, with a soft boost around 15kHz. So don't try using it in any other way unless you want a really thin bodiless sound — this is very much a tool for a specific job. In the same way, real care about position is needed, and with this in mind the boom is 3cm longer than the otherwise-identical boom supplied with the more familiar omni 4066. The manual is insistent that the capsule should be positioned 2-3cm from the corner of the mouth, not actually in front of it, and adjustment is provided in the boom to allow this.

Anchor Accessory

DPA cites uses beyond the

CONTACTS

UK Distributor:
Sound Network (UK)
+44 (0)20 7665 6563
info@soundnetwork.co.uk

DPA Microphones
+45 4814 2828
info@dpamicrophones.com