

# Neumann BCM 104 and BCM 705

...good morning you're listening to resolution magazine FM and the mellifluous voice of JON THORNTON welcoming you to another great day in the city and easing you in with some fab sounds and good listening we'll be along with the traffic information and your chance to phone in and win matching his 'n' hers tattoos right after this from Keane...

**THE BCM PREFIX** of both of these microphones from Neumann shows exactly which market segment the venerable German manufacturer has in its sights. The first two products in a new broadcast range are aimed squarely at radio presentation, TV continuity and voice-over applications. Despite the fact that they would undoubtedly perform well in a variety of other applications, much of what makes them distinctive is a

that a new colour has been added to the badge livery — while the BCM 104 has a familiar red background, the BCM 705 sports a green background, signifying that this is, in fact, the first dynamic microphone produced by Neumann.

Internally, the BCM 104 is a large diaphragm capacitor design, featuring a single diaphragm with a fixed cardioid response. The output stage is transformerless, contributing to a very low (7dBA) self-noise figure. By comparison, the BCM 705 is based around a supercardioid pattern dynamic capsule, drawing no doubt on the expertise of parent company Sennheiser. The dynamic BCM 705 is tuned with a low frequency response that exhibits a fairly steep roll off below 150Hz or so in the free field — however this results in a gentle LF lift when proximity effect comes into play with close miking.

The BCM104's natural response is altogether much flatter, and in its case, a switchable high-pass filter is available (12dB/octave below 100Hz). This filter is not immediately obvious as it is located on the circuit board that mates to the microphone's XLR connector.

Removing a screw allows the connector and board to be slid out, revealing two DIP switches. One of these is for the HPF, the other allows a -14dB pre-attenuation to be set in order for the microphone to be matched to installations that might be ordinarily set up to handle the outputs of dynamic microphones. Although their location might seem a little fiddly to get to, in a situation where a microphone is in a more or less permanent install, having fewer switches for the talent to play with is probably a bonus.

Both microphones also feature a head grille that is quickly and easily removed with a quick half twist for cleaning purposes, and a built-in mesh pop shield within the microphone body. Again, this is relatively easy to remove for cleaning and in practice works very well, taming all but the most extreme plosives at normal working distances. For real hygiene obsessives, Neumann will also sell you additional head grilles that can be colour coded with a rubber ring around the bottom — so that each presenter can have their own.

First impressions on auditioning the BCM 104 are that it has a typically Neumann sound, ever so slightly larger than life with plenty of 'sheen' on the high frequency ranges. The microphone ships from the factory with the high-pass filter in place, which unsurprisingly leads to a pronounced lack of LF extension unless the source is very close to the mic, but even so, I found that switching this out gave a much more rounded and solid character to the majority of voices.

Switching immediately to the BCM 705 was initially slightly disappointing — certainly there's a lack of detail to

some aspects of the spoken voice here. However, more extensive auditioning with a variety of voices soon changed my mind. If anything, the dynamic microphone was a little more capable of generating that full-on mellifluous DJ sound, and seemed a little more tolerant of variations in working distance than its capacitor stablemate.

Out of a music studio and into a radio studio environment and this difference became more obvious. Although both microphones exhibit good off-axis rejection, the BCM 705's supercardioid pattern, coupled with its dynamic characteristics meant that it was far less susceptible to picking up extraneous clutter and script noise, etc. than the BCM 104. I guess this very much depends on the working environment and acoustic treatment — but in anything less than ideal conditions the BCM 705 felt like it had the edge here. Dialling in some judicious broadcast processing on the output, with generous helpings of phase-rotation, also seemed to favour the dynamic microphone, with BCM 104 sounding a little too brittle and harsh.

Having said that, in a more controlled space and with different goals in mind, the BCM 104 (UK£649 + VAT) is the clear winner here for voiceover work, with a nice full, detailed sound that sits well in a TV mix without ever sounding too overblown or unnatural. Comparisons are bound to be made with the U87 in this application, and the sound is not dissimilar — perhaps a little more neutral in the mid-range. Added to this is a cheaper price, and the benefits of the built in pop-shield and shockmount, and I suspect that this microphone will start to make some serious inroads into this market.

The broadcast side is a little trickier — certainly both microphones are not without some well established competition in this production area. For me, the BCM 705 (UK£425 + VAT) is the best candidate for the job here, although this will largely come down to a matter of taste and to some extent the nature of an individual presenter's voice. But both microphones are more than up to the job, and benefit greatly from some really well thought out and well implemented design and packaging. ■

result of this focus on the spoken voice and the broadcast environment.

Both microphones share the same exterior shell, with its slightly odd looking shape and integrated rubber shockmount assembly. It's clear that this really belongs on the end of an angle-poise type microphone boom, and the orientation of the badge implies that being suspended from above is the 'right' way round. Speaking of badges, confirmed Neumann anoraks will have noticed



## PROS

Nicely executed and effective built-in pop shield and shockmount; detachable head grilles; choice of very useable sonic characteristics between the two microphones; good ergonomics.

## CONS

LF extension on BCM104 seems a little too restrained with filter in place; BCM705 really needs to be worked quite close to sound balanced.

## Contact

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