

AEA KU4

Joining an exclusive set of ribbon mics with a cardioid pattern, the latest from AEA harks back to a rare and desirable classic. **JON THORNTON** does not take it lightly.

In terms of microphones currently in production, the KU4 is something of a rarity — a unidirectional ribbon microphone. Yes, there are others around, most notably those produced by Beyerdynamic (including most recently a cardioid ribbon designed for handheld stage use), but you can count the number on the fingers of one hand. Yet historically, there was always an understanding of the value in having a ribbon microphone that didn't demonstrate the standard bidirectional polar pattern of a pressure gradient design. Losing the rear pick-up gives many more options in choice of mic position, and helps in dealing with less than ideal acoustics. Take a peek into the annals of microphone manufacture and you'll see any number of examples of such approaches from companies including Shure, Altec, and even (bizarrely) Fostex (*Ah yes, the printed ribbons. Ed*).

Of course, none of this escaped the attention of the doyen of ribbon mic manufacturers, and RCA created many variants of its type 77 that offered variable and fixed polar patterns. But it was the RCA KU3A that for many defined the pinnacle of performance in the category, a fixed pattern cardioid ribbon created in response to the Hollywood movie studios' demands for a high quality unidirectional microphone suitable for use on booms. Fewer than 600 examples were ever produced, making an original working version as rare as it is desirable. So it was a logical choice for AEA's Wes Dooley to bring his considerable expertise in making modern recreations of RCA classics to the party, the result of which is the AEA KU4.

It's a very striking design visually, and faithful to the RCA original. The most obvious stand-out feature is the asymmetrical 'V' shaped lip of the front grille, mated somewhat incongruously to the smooth rounded tube of the main body. While the original KU3A was used with a variety of intricate suspension mounts in its original application on a boom, it's unlikely that the KU4 would be used in that application today. So AEA has sensibly opted to provide it with the integrated yoke and cushion mount employed on its R44. This provides a reasonable degree of isolation, while minimising the bulkiness of what is, to be honest, a fairly sizeable chunk of hardware. Connection is via a captive 1.5m cable terminated on an XLR-M, and the unit ships with a neat fabric case (encouraging the

storage of the mic vertically) and a zipped fabric cover to protect it from air movement when not in use or when moving it around.

It's not only the external design that remains faithful to the original. Internally, the 1¼-inch inch ribbon is manufactured from authentic RCA NOS material mated to modern neodymium magnets to create the motor. Output is via a custom wound AEA transformer. But the KU4 is more than simply a slavish copy of the original — AEA has tweaked the design parameters a little, chiefly in the area of polar response. While the original KU3A was specified as a cardioid pick-up, in reality there was significant variation in the responses in pick-up and on-axis/off-axis response. In designing the acoustic labyrinth and tuning the motor, AEA found that a hypercardioid response actually delivered better consistency in both of these areas.

The KU4 is a beast of a microphone, and while not quite the weightiest that AEA produce, you'll need a sturdy, properly weighted and counter-balanced mic stand to cope with its 2.15kg weight. As an entirely passive design, output is a relatively meagre 2.5mV/Pa — a decent, quiet preamp is a necessity for most applications.

First impressions with spoken voice are of a solid, smooth sound and one that remains very balanced as you move off-axis. There's a noticeable, but progressive and (dare I say it) useful HF roll-off that comes into play quite quickly as the source moves off-axis, but no objectionable peaks or dips in the response. Being a hypercardioid design, maximum rejection is actually +/-135 degrees off-axis, and there is a noticeable rear pickup lobe — but even at 180 degrees the mic delivers -12dB of rejection. And you do notice this, even in relatively controlled recording environments, especially when compared to a more typical fig-8 ribbon such as the AEA R84. The reduced rear pick-up helps deliver a much more intimate sound without resorting to building heavily damped vocal booths from screens, and helps in reducing

the effect of reflections in such situations.

There is some proximity effect in evidence; AEA has aimed to reduce this in the design but hasn't dialled it out completely. It's nowhere near the same level that most fig-8 ribbons exhibit, but there's still a very gentle lift that starts becoming noticeable about 6-inches away. And that's a good thing, as had it been dialled out any more, some vocal sources would have needed overly close miking and frankly this isn't what sounds best here. Sung male and female vocals seem to benefit from having a little distance (6-8 inches) from the microphone. Closer distances seem to sound less natural, while having more distance sounds wonderfully smooth and natural, without significant loss of detail.

And detail there is plenty of — not in an overly hyped way, but in the sense that if you reach for EQ in the high and mid ranges, there's plenty to grab on to. Not that the mid-range particularly needs much attention here as there's a smoothness, even with the most belting performance, that puts the 'squawkiness' of many large diaphragm capacitor microphones to shame.

Where the KU4 really comes into its own is in those situations where spill is an issue. I was fortunate to be able to trial the KU4 in an as-live session incorporating drums, bass, guitar and a small brass section. While acoustic screens provided a degree of control, a fig-8 ribbon for the brass would never

have been an optimal solution — however much I like the sound. The KU4 here really delivered the goods. A combination of relative source level, the hypercardioid pick-up, the microphone's SPL handling and overall sound all seemed to click into place. I've employed EV RE-20s in similar situations in the past but they just can't match the KU4 for that

wonderful mid-range smoothness that flatters even the harshest sounding players. If money was no object those faithful RE-20s would be staying in the cupboard.

And there's the rub. Money is, unfortunately, a very big object here. There's almost nothing to find fault with the KU4, except for the fact that it retails at £4210 (+ VAT). And you'll probably find yourself wanting more than one of them. Still, you could argue that it's staying faithful to the original at every level. They do say that the KU3A was the most expensive mic that RCA ever produced... ■

PROS Fabulous sounding; looks; directionality without sacrificing tonality.

CONS Price; bulk makes it a little hard to work into some positions.

Contact

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