

# microphones



## MICROTECH GEFELL UM 930

**Hugh Robjohns MIBS tries out a new high-end switchable pattern capacitor microphone.**

I reviewed the Gefell M 930 large diaphragm cardioid studio microphone in *Line Up* back in June/July 2003, and was very impressed. However, although the vast majority of modern microphone applications call for cardioid designs, there are times when other patterns are more appropriate, and the versatility of a good multi-pattern mic cannot be ignored. So I was delighted when I learned that the UM 930 had been launched.

### Overview

The UM 930 mic provides five polar patterns – omni, wide cardioid, cardioid, hypercardioid and figure-of-eight – switched by a large circumferential ring just below the grille. The mic is designed for the full range of studio and broadcast applications, including spoken voice from announcers and presenters, singing vocalists, and countless instrumental duties such as for recording acoustic guitars and keyboards, percussion, wind and string instruments, and so on.

It is a side-address design, the model number and polar pattern symbols marking the front side, with the manufacturer's logo

on the rear. Usefully, the UM 930 incorporates a discreet green LED behind the grille on the on-axis side of the mic.

Although sharing a similar model number to the M 930 and appearing to have the same sort of proportions, it is roughly 40% bigger in all dimensions. It measures some 158mm long, is 65mm in diameter, and weighs a very chunky 930g (compared to the M 930's delicate 210g).

The UM 930 uses the same optical DC converter technology as the M 930 and its technical specifications are very similar too. It has the same low self-noise of 7dB(A), the same maximum SPL of 142dB (for 0.5% distortion), and fractionally lower sensitivity at 20mV/Pa. Standard phantom power is required, of course, from which the mic draws 4.5mA.

### Options

The UM 930 is available in either satin nickel or dark bronze finishes, and can be supplied with various mounts. The review model was equipped with an integral dual-axis 'elastic suspension,' but a more conventional cradle shockmount is also available, as is a simple single-axis microphone bracket. Whichever support is chosen, the mic is supplied in a classy wooden box.

There are a couple of interesting cost-options too. The Sound Check Tool (SCT) sends a 1kHz test signal down the cable if the selector switch is left between any two polar patterns for more than about five seconds. The tone is equivalent to a sound pressure level of 74dB(A) (20dB below the reference standard of 1 Pascal). Another cost-option provides two simultaneous outputs via a 5-pin XLR instead of the standard 3-pin type. This UM 930 Twin version provides a fixed cardioid pattern on one output, and a switchable pattern on the other.

A more practical option is to swap the black O-rings on the pattern selector switch for one or more coloured O-rings to aid identification – green, red and blue alternatives are available.

### In Use

The mic seems very solid and robust, and the polar pattern switch is nicely weighted and detented for a very smooth but positive action. It all feels very reliable and, dare I say it, expensive.

The mode switching is performed by sealed reed-relays which should give a lifetime of dependable service. When

switching polar patterns the output mutes (and the green LED is extinguished), but some clicks still escape. The output remains muted for a few seconds after a new pattern has been selected to allow the voltages to stabilise, after which the green LED illuminates again.

The published polar patterns are all fairly tidy and consistent up to about 8kHz. Above about 12kHz the patterns collapse progressively towards a narrow figure-eight response - as most dual-diaphragm mics do. All patterns have a broad 4dB presence peak centred at about 12kHz, but the more directional the pattern, the stronger the HF tilt of the frequency response. At 5kHz the omni pattern is only 2dB higher than it is at 50Hz, but it's 4dB for the cardioid, and almost 8dB for the figure-eight pattern. Proximity effect counteracts this tilt in many applications, however, and the rising response is not as obvious in use as the plots suggest. The broad presence peak is nicely judged to give clarity and air without exposing sibilance, too.

Comparing the cardioid mode UM 930 to the M 930, the two were sonically very similar, and the overall character of the UM 930 is clean and reasonably neutral. I liked the quality of the recordings I achieved with it - from male vocal to solo 'cello and silver cornet - and its size and styling impressed the vocalist enormously!

The only obvious failing I can point at with this mic is its price, which is almost double that of the industry standard Neumann U87. It outperforms the U87 technically and offers far more versatility, but many will struggle to justify the cost, which is an enormous shame.

**ibs**



The diminutive fixed-cardioid M 930 alongside its far larger multi-pattern sibling, the UM 930

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£2321 (ex VAT)

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