



Rode NT3 : November 2000

Rode NT3

Studio Condenser Microphone

Reviews : Microphone

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A true condenser studio mic from Down Under, provides quality on a budget. Hugh Robjohns checks out the Rode NT3.

The Australian company, Rode, have become a highly regarded microphone manufacturer in just a few short years. The company's NT2 microphone first appeared in the pages of *Sound On Sound* back in 1995 and new models have been reviewed more or less annually ever since. The enormous success of this small antipodean company has stemmed from its ability to produce high-quality large diaphragm condenser microphones (including models with valve preamplifiers) at remarkably attractive prices.

Like many of the 'modern' microphone manufacturers -- by which I mean those companies formed in the last ten or fifteen years -- Rode have based their models on capsules constructed (to their design) in China. Production costs are consequently far lower than anything possible in Europe or the US, whilst quality is directly comparable. Further cost savings have been made by producing mics with fixed polar patterns, avoiding the complexities of (often little-used) multi-pattern switching.

The Straight & Narrow

The NT3 is the baby of the Rode family, with the smallest capsule size and the lowest cost. However, it is still a very capable performer with a wide range of applications in studio, stage, location and broadcast environments. The microphone is configured as an end-fire device with a nominally hypercardioid polar pattern, and it is housed within a substantial cast-metal body with a satin-nickle finish.

The 19mm condenser capsule is polarised either by an internal power supply derived from an internal 9V PP3 battery or by standard 48V phantom power delivered through a balanced mic cable. The head preamplifier incorporates a JFET for the impedance-conversion stage, and a transformerless bipolar output buffer can drive long mic cables with low noise. For the record, the supplied specifications give a very respectable equivalent noise figure of under 16dB SPL (A weighted), and a healthy sensitivity of -39dB (ref 1V/Pa). Dynamic range is quoted as being greater than 123dB with a maximum SPL of 140dB for one percent distortion. Physically, the NT3 weighs 415g with a PP3 battery installed, and is roughly 205mm long and 35mm in diameter.

Within the cardboard packing box is a padded, zipped pouch, a foam windshield and a very chunky rubber standmount clip with a thread adapter for both 3/8-inch and 5/8-inch microphone stands. The rubber and plastic clip has a threaded brass insert in its base and the moveable microphone bracket was sufficiently stiff to remain stable in any position. There is no provision to tighten the grip on the bracket, however, should it work loose with use.

The microphone features a stainless-steel mesh grille at the business end, with a dense internal foam pop shield. A recessed slide switch on the body turns the microphone on (irrespective of the power supply in use) and an adjacent red LED illuminates briefly if the battery voltage is good, but stays on for longer if the battery requires replacing. Battery life is estimated to be in excess of 400 hours. I was surprised that the switch remains in circuit even when phantom power is available -- it would have been more practical had the switch only affected the battery powering.

The lower half of the microphone's tubular body can be unscrewed to reveal the battery compartment, which is clearly marked for the correct type of battery and its orientation. A curved plastic bracket holds the battery firmly in place when the barrel is screwed home, and a rubber ring at the base ensures a tight, vibration-free fit -- nice engineering features which are unusual in a budget product. The base of the microphone is slightly conical and houses the familiar three-pin male XLR connector.

Taking It For A Ride

The NT3 feels like a really solid, well-engineered microphone and it looks equally robust. True to this impression, the microphone is reasonably resistant to handling noise and also to vibration through the stand. The polar pattern is pretty broad, reaching -3dB points at about 60 degrees off axis, but the frequency response remains reasonably consistent throughout the region. Moving further to the side reveals the expected drop between 2 and 4kHz, and the rear shows a small hypercardioid tail of around 12dB lower sensitivity than the frontal axis. The rejection nulls can be found at around 130 and 230 degrees, but they are not particularly pronounced, offering between 15 and 20dB of attenuation depending on frequency.

The frequency response is wide and open, extending from roughly 30Hz to 20kHz at the -3dB points. The bottom end has a very gentle droop from around 200Hz when used with a distant placing, although this can be bolstered by the proximity effect when used closer to the source. The high-frequency region exhibits a couple of gentle, but audible, presence peaks with a slight dip between them.

Although the extra presence can work well in some situations (on male voices, for example) it can also prove a mild distraction in others. The peaks seem to be centred around 4 and 12kHz, with a suck-out at about 7kHz, though the response can be tamed quite easily with a decent desk equaliser in the few situations where the sonics of the microphone alter the natural balance of harmonics in the source unacceptably. One such example was with a vibrant 12-string guitar (my favoured and most challenging test for microphones and mic preamps), which lost some clarity and precision whilst gaining a mild harshness, almost irrespective of where the mic was placed. However, many mics costing a great deal more suffer equally on this test and the NT3 performed

RODE NT3 £199

pros

- Quality performance at a budget price.
- Flexibility of battery or phantom power.
- Broad and uniform pickup pattern.

cons

- The on/off switch is active even when phantom powering.
- Small frequency response wobbles at the high end.

summary

A true condenser mic from Oz which provides extraordinary value for money in a rugged package. A fixed hypercardioid pattern and the option of internal battery or phantom powering makes this a

extremely well in the vast majority of situations, responding well to changes in position.

The handbook suggests that the Rode NT3 is suitable for a wide range of applications and I would concur that it is a versatile jack of all trades. It offers remarkable performance and capacitor-microphone sonic virtues at a very affordable price, and as such it redefines the term 'value for money'. It is obviously not in the same league of fidelity and naturalness as a thousand-pound specimen, but I would nonetheless be very pleased to have some NT3s in my mic cupboard. [SOS](#)

flexible workhorse for all types of recording.

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