

RØDE[®]
MICROPHONES



NT4
Instruction Guide



RØDE STUDIO CONDENSER MICROPHONES



CE (EMC, LVD)

RØDE NT4

Serial Number:

Checked by:

Date:.....

This stereo condenser microphone has been proudly designed and manufactured by **RØDE** Microphones in Sydney, Australia.

We at **RØDE** thank you for investing in our product and with the appropriate care, it will serve you well for many years to come.

Please take the time to read the following information which will help you to achieve the best possible performance from your NT4.

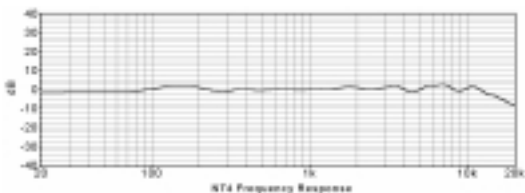


Peter Freedman
RØDE Microphones

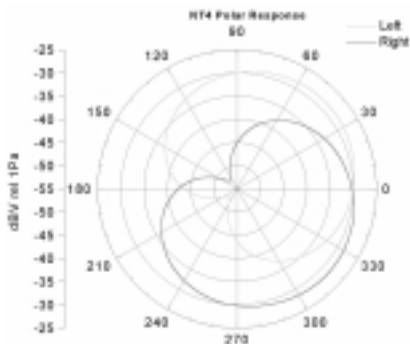
SPECIFICATIONS:

- Capsule: 2 x 1/2" (13mm) externally polarised condenser transducers in stereo XY placement.
- Active Electronics: J-FET Impedance convertor with bipolar output buffer.
- Pickup Pattern: Cardioid per capsule (see graph).
- Output Impedence: 200 Ohms
- Frequency Response: 20Hz – 20kHz (see graph)
- Sensitivity: -38dB re 1v/Pa +/-2dB equivalent to 12mV/Pa where 1Pa = 94dB SPL
- Equivalent Noise: <16dB SPL (A-Weighted per IEC268-15).
- Maximum Output: +13.9dBu @ 1% THD into 1k
- Dynamic Range: >128dB
- Maximum SPL: 143dB @ 1% THD into 1k
- Signal / Noise Ratio: 78dB
- Power Requirements: P48, P24, P12 phantom or 9V Battery
- Packed Weight: 2.3Kg (Microphone only 480g)
- Dimensions: Diameter: 32mm
Length: 232mm

FREQUENCY RESPONSE



POLAR PATTERN



FEATURES:

- Stereo XY condenser microphone.
- 2 x Externally biased 1/2" Capsules with gold sputtered diaphragm.
- Capsules closely matched with full frequency response.
- Phantom power or 9V battery operation.
- Durable satin-nickel finish.
- Custom stereo cables (included) dual XLR and mini Stereo Jack.
- Custom WS4 twin-head Wind Shield.
- Surface-mount transformerless circuitry.
- Complete with Custom Carry Case and Stand Mount.

ACCESSORIES INCLUDED:

- WS4 Wind Shield
- Custom Carry Case
- RM3 Stand Mount plus 3/8" – 5/8" Thread Adaptor
- Custom Stereo Cables
(dual XLR and mini stereo jack)



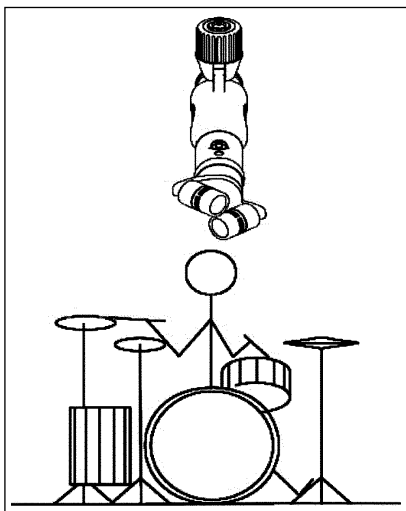
The NT4 is an easy to use, precision stereo condenser microphone. Choirs, orchestras, drum over-heads, solo or ensemble instruments, may all be recorded with the ' ambience' and ' space' only a true stereo microphone like the NT4 can capture.

The two capsules used in the NT4 measure $\frac{1}{2}$ " in diameter and have a cardioid polar pattern. The cardioid patterns pick-up sound from in front of the microphone and reject sound from the rear. This helps with reducing unwanted sound such as reverberation and audience sound from the rear of the capsules. It is crucial when stereo recording to have the capsules closely matched, as in the NT4. The polar frequency response of each capsule must be matched because much of the sound in an XY stereo arrangement is picked up off-axis by each capsule. The tone can be varied by rotating the NT4 on its axis, so that the capsules are pointing towards different areas of the sound source. It is recommended that you experiment with subtle position changes to help you achieve your desired results. The matched capsules of the NT4 allow for an accurate response when recording a wide variety of sources in various locations.

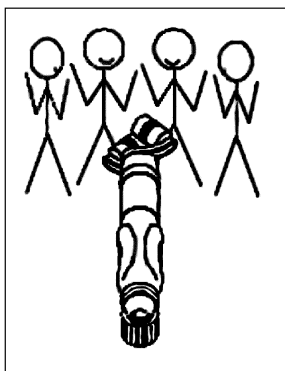
Some of the (many) potential applications of the NT4 might be:

As an XY stereo overhead for the recording of **drum kits**. Simply positioned at the rear of the kit, in the centre behind the drummer and angled down towards the drums, the NT4 produces a

'real' sounding kit. This method is very quick and easy. There is no need to worry about the angles of two individual microphones, or testing to see if they are two of the same model which sound a little different to each other.

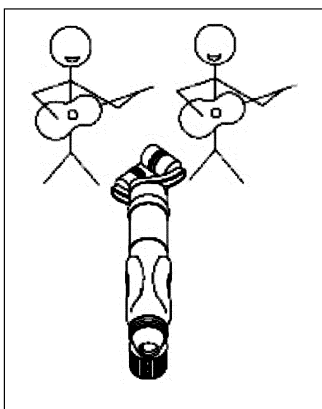


Miking **groups of vocalists** in the studio or live on stage. Placement can be in front of the vocalists with the microphone pointing towards the middle of the group. The distance between the vocalists and the microphone depends on the acoustics of the environment, level of the vocalists and the sound that you are trying to achieve. More bass frequencies are evident when the microphone and vocalists are closer together.



Placed strategically above a **grand piano**, the NT4 easily and clearly produces the true, stereo image of that instrument.

Acoustic guitar performances (duo or ensembles) are captured in true spatial stereo simply by positioning the NT4 centrally between or among them, and finely adjusting the position for the ultimately desired responses. A solo acoustic guitar will also benefit from the ambient sound captured by the NT4. (The closer the microphone is to the instrument, the less ambience and more guitar. For more ambience, gradually move the microphone away from the guitar).



Bands: like most applications, adjustments and trials of the microphones' position will quickly and easily show that most effective position.

1. You may use either phantom power (see Specifications) or 9V battery to operate your NT4.
2. Most professional mixing consoles include a 48-volt phantom power supply; if yours does not, a separate one may of course be used. Ensure that whichever power supply you use, it is a professional unit and is working correctly.
3. If you choose to use battery power, a 9 Volt (PP3) battery should be fitted into the cavity within the microphone body ensuring correct polarity (+ to + and - to -). We recommend that you use a high quality alkaline battery. To fit the battery, simply un-screw the lower

section of the body and insert the battery into the cavity (terminals first). Secure the battery in place with the flexible spring clip and re-assemble the body, screwing the sections firmly together.



4. The ON/OFF switch turns the microphone ON or OFF when powered by **either** phantom or battery. When using battery power, the switch should be switched to OFF when the microphone is not in use. If left ON, the battery power will be unnecessarily depleted. We recommend that during long periods of non-use, the battery should be removed, as it may leak, and that could damage your NT4. When the NT4 is switched ON, the red battery status L.E.D. (light-emitting-diode) gives an indication of battery power and should always be carefully observed. When the L.E.D. flashes (illuminates for about 1 second), the battery power is 'good'. If the L.E.D. remains illuminated significantly longer, the battery should be replaced. Tests have shown a life expectancy for a high quality alkaline battery used in the NT4 to be in excess of 400 hours.



5. The NT4 may be connected directly to 2 channels of a mixer using the twin XLR cable (marked L and R) supplied, with each channel panned left and right as required. Battery power will only be necessary if the mixer does not have an in-built phantom P48 supply. Connection may also be made direct to a

portable DAT or other recording devices to enable field/location operation using the 9V battery supply.

6. A stand mount clip (RM-3) is included with your NT4, and should be used to connect the NT4 firmly and safely to a stable microphone stand unless of course you choose hand-held operation which should only be used when it is not possible to stand mount the NT4.
7. The NT4 is supplied with both a dual XLR cable, and a stereo mini-jack cable. The stereo mini-jack cable and battery option allow for maximum portability and connection to most recording devices. Whether you are using a mixer, DAT player or Mini-disc player (with or without phantom power), the connections and power options allow for maximum flexibility.

We recommend that all connections made to the mixer or recorder are made with the attenuation (gain) set to OFF.

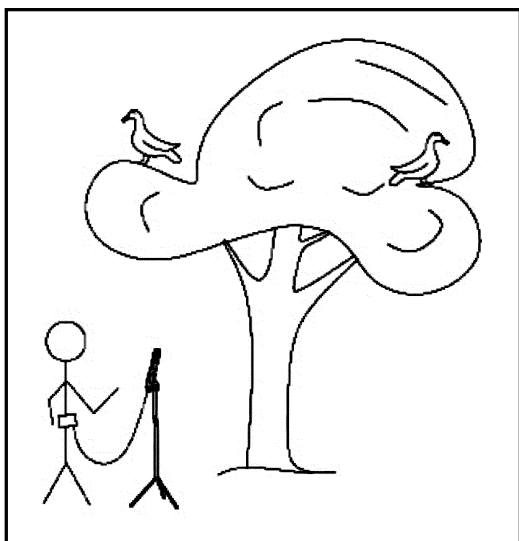
8. When first switching the mixer ON and phantom power is applied to the NT4, or when the microphone battery power is switched ON, several seconds should be allowed for the microphone to stabilize.

Note: When using phantom power, a battery may be in or out; it is ineffective in that situation.

9. To ensure the lowest noise/distortion, your mixer input gain control should be set so that the Peak Program Indicator (P.P.I.) L.E.D flashes ON during peaks (high levels) of the program source (Voice/Instrument). If there is no P.P.I., adjust the input gain while listening for distortion of the sound. As distortion is heard, reduce the gain gradually until the sound is undistorted (clean).
10. Sound quality is of course subjective and 'your sound' will be achieved by you with experimentation. We suggest that you begin with EQ set FLAT/OFF (no boost or cut). Remember that EQ cannot change the acoustic properties of a room. In a studio-recording situation, you should try placing absorbent or reflective panels/material in various positions within the vicinity of the

sound source and microphone. The positioning of the microphone also has dramatic effect on the sound quality.

When using the NT4 outdoors, care must be taken to avoid excessive handling noise and wind noise. As with all condenser microphones, the NT4 is sensitive to strong gusts of wind and so should be adequately shielded. The supplied wind shield (WS-4) is designed for vocal applications and in-doors only. The WS-4 is not effective enough outdoors in high wind conditions. For this work a heavier foam type or a 'Rycote' (www.rycote.com) style wind cover should be used. We also suggest the NT4 be used with the supplied holder (RM-3) and a quality



microphone stand. This will avoid any handling vibration noise.

The best way to assess your recording environment, is to listen to the 'unplugged' sound you wish to record (use your ears). Remember that no amount of EQ can correct a 'bad' sounding instrument, voice or recording environment. Any further desired modification of sound can then be undertaken with the EQ.

11. Like all condenser microphones, the NT4 should be kept dry and clean at all times.
12. The NT4 is a precision transducer and you should be careful not to drop or knock it as this could cause serious damage. After use, the NT4 should be wiped clean with a soft cloth, and stored in its protective case together with the pack of moisture absorbent crystals (silica gel/desiccant). These crystals should be blue. If they have turned to pink they are no longer active. To reactivate them, place the pack in an oven set to between 100-150 degrees C until they become blue again.

Note: There are **no** user serviceable parts inside this microphone so there will never be reason for you to dismantle it (except to replace the battery). Any service, which may require dismantling, **must** be performed by an authorized **RODE** Service Agent.

Warranty Service:

All **RODE** products are warranted for one year from your date of purchase and the warranty card or on-line registration (www.rodemic.com) should be used to register your microphone.

The warranty covers parts and labour that may be required to repair the microphone during the warranty period. The warranty excludes defects caused by normal wear, modification, shipping-damage, or failure to use the microphone as per the instruction guide.

If you experience any problems, or have any questions regarding your **RODE** microphone, first, contact the Dealer who sold it to you. If you have any difficulty obtaining the advice or assistance you require, do not hesitate to contact us directly.

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