RØDE®
MICROPHONES

NT1-A
Instruction Manual

www.rodemic.com

CE (EMC, LVD)

Introduction

Thank you for investing in the **RØDE** NT1-A studio condenser microphone.

Whether you've purchased this mic on its own, or as a part of a matched pair set, I'm confident that you will find it an exceptional microphone for almost any recording application.

We're proud to say that the NT1-A has become an industry standard - providing the warmth, extended dynamic range, clarity and high SPL capability usually only found on some of the most expensive microphones.

Please take the time to visit **www.rodemic.com** and register your microphone for a full ten year warranty.

While there you can view studio tips and techniques, as well as browse the comprehensive range of accessories for **RØDE** microphones.

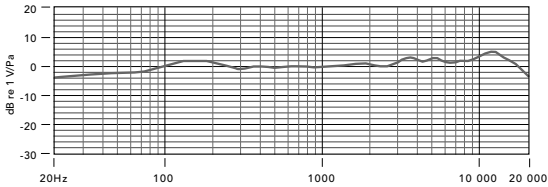
Peter Freedman
RØDE Microphones
Sydney, Australia

Specifications

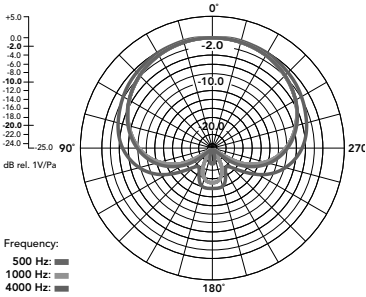
Acoustic Principle:	Externally polarised 25mm (1") condenser
Active Electronics:	JFET impedance converter with bipolar output buffer
Directional Pattern:	Cardioid (see graph)
Frequency Range:	20Hz ~ 20,000Hz (see graph)
Output Impedence:	100Ω
Sensitivity:	-31.9dB re 1V/Pa @ 1kHz (25mV/Pa @ 94dB SPL) ±2dB @ 1kHz
Equivalent Noise:	5dBA SPL (per IEC651)
Maximum Output:	+13.7dBu (@ 1kHz, 1% THD into 1kΩ)
Dynamic Range:	>132dB (per IEC651)
Maximum SPL:	137dB (@ 1kHz, 1% THD into 1kΩ)
Signal/Noise:	88dB SPL (@ 1kHz, rel 1Pa per IEC651)
Power Requirement:	Phantom P48, P24
Output Connection:	3-pin XLR
Net Weight:	326g

Specifications

Frequency Response



Polar Response



Accessories

Single

SM1 shock mount

ZP1 zip pouch

Matched Pair

2 x SM1 shock mounts

RC6 hard case

Features

- Large capsule (1") with gold-plated membrane
- Cardioid polar pattern
- Ultra-low noise transformerless circuitry
- New, state-of-the-art surface mount electronics
- Heavy-duty satin nickel finish
- Monocoque sub-assembly
- Internal shock mounting system
- Gold plated output connectors
- Designed & manufactured in Australia
- Full 10 year guarantee*

Supplying Power

- Connect all cables before applying power to the microphone and never remove the microphone cable while the power is connected.
- The NT1-A requires P48 volts or P24 volts phantom power.
- If the mixer or preamp does not contain this phantom power requirement, then an external phantom power supply is needed.
- Some phantom power supplies do not supply the voltage at which they are rated. If the required voltage is not supplied, the dynamic range and general performance of the microphone will be reduced.
- We strongly suggest the use of a reputable high quality power supply. Damage caused by a faulty power supply is not covered by the warranty.

*Online product registration required.

Microphone Placement

- The gold dot on the face of the NT1-A indicates the front of the microphone, and the pick-up area of the cardioid pattern. Please be sure to have the side with the dot facing the sound source you wish to record.

- Microphone technique, or how to get the sound you want, requires experimentation.

  We suggest that you start with the channel EQ set to 'OFF' or 'FLAT' (no boost or cut). Try to get the sound you want by placing either reflective or absorbent panels at various angles adjacent to the source being recorded.

- Changing the acoustic properties of the space around the microphone is our recommended initial approach for obtaining best sound quality. Remember you cannot change a room's acoustic properties with EQ.

  When the preferred sound has been achieved (as above) then EQ and effects such as reverb or indeed any signal processing can be used for enhancement, but should be used sparingly.

- It is worth mentioning that sometimes 'cutting' a particular frequency (sound) may be preferable to 'boosting' another. Of course 'boosting' can increase noise level and so should be done minimally.
  As with many other aspects of the recording process, finding the preferred 'sound' is a matter of experimentation.

Recording vocals

- We strongly recommend the use of a pop shield or filter for all vocal recording. These aid in minimising plosive sounds (hard 'P', 'B', 'T' and 'K' sounds) that produce a sudden jet of air which can cause the capsule to overload and produce a 'popping' sound.

- Any moisture on the microphone capsule can cause problems for condenser microphones, however the use of a pop shield will reduce the risk of this occurring.
- Placement of the microphone and pop shield relative to the vocalist may be varied on several factors including room acoustics, the vocal performance, and whether the vocalist has a high or deep voice.
- An ideal reference is to begin with the pop shield directly in front of the vocalist, and approximately 15cm (6") away from the microphone. This will assist in keeping the performer at a constant minimum distance from the microphone and helps to maintain reasonable recording levels.
- Experimentation should be made with the angle from which the microphone is addressed, as different results can be achieved when the vocalist is 'off-axis' to the microphone (and the gold dot).

Recording electric guitar/bass

- To mic up a guitar or bass amplifier (as opposed to direct injection of that instrument) a microphone may be placed close to the loudspeaker of the amplifier, directed slightly to the side (off-axis) of the speaker.
- In the absence of a PAD it may be necessary to move the microphone further from the speaker to avoid distortion when loud volume is used.

Recording piano

- To record a piano using a single microphone you should place the mic approximately 60cm (2') above the centre of the sound board, aimed slightly towards the front of the piano.
- To record a piano using a matched pair of NT1-
  As using X/Y stereo technique, the matched microphone should be angled 90 - 110 degrees to each other, over the hammers with one mic aimed towards the lower strings and the other to the higher strings. The gold dots should face the piano.
  An effective stereo image can be achieved, with lower frequencies being recorded on the left, and higher frequencies on the right.

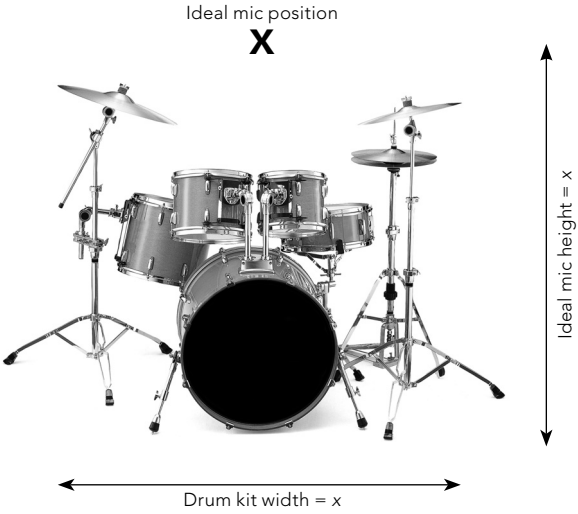
Recording acoustic guitar

- A common (single) microphone position when recording acoustic guitar is between 20 and 30 centimetres away from the front of the instrument, where the neck and body meet. Adjust the distance and position to 'finely' tune the desired response. This will depend on the instrument, style of playing, and the desired sound.

- An alternative technique is to combine a small capsule microphone (like the NT5 or NT55) close to the guitar, with a large capsule microphone like the NT1-A at a distance of around a metre. The individually captured sounds recorded by each microphone can then be mixed as desired.

Recording drums

- There are various ways to record drum kits. Single mics 'overhead', multiple mics (X/Y or spaced pair) or multiple mics close to individual drums and cymbals ('close miking').
- To record a kit using a single microphone we suggest that you begin by placing the mic above the direct centre of the kit at the same height as the kit is wide (see below), with the front of the microphone (gold dot) facing down.



- To record a kit using two overhead microphones they should be placed at a similar height to the single technique and, depending on the kit size, approximately 1-2m (3-6') apart. The mics should generally be equi-distant from the snare drum.
- To record a kit using a matched pair of microphones in X/Y stereo technique, the microphones should be placed in the location of the single mic technique, with the front of each microphone (gold dot) pointing down and at an angle of 90 - 110 degrees to each other.

Storage

- After use the NT1-A should be removed from its shock mount, wiped with a dry, soft cloth and placed in its protective zip pouch or case.
- Be sure to place the moisture-absorbent crystals (supplied) at the head of the microphone(s), so as to absorb any moisture present.

  Eventually this pack of crystals will need to be dried. This is indicated by the crystals turning pink in colour.

  They can easily be re-used by placing them in an oven at 100 - 150 degrees celsius for approximately ten minutes. The crystals will operate effectively again once they have turned blue.

Warranty

All **RØDE** microphones are warranted for one year from date of purchase. You can extend that to a full ten years if you register online at **www.rodemic.com**.

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 and tear, modification, shipping damage, or failure to use the microphone as per the instruction guide.

If you experience any problem, or have any questions regarding your **RØDE** microphone, first contact the dealer who sold it to you. If the microphone requires a factory authorised service, return will be organised by that dealer.

We have an extensive distributor/dealer network, but if you have difficulty getting the advice or assistance you require, do not hesitate to contact us directly.

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