

# The K2 Instruction Guide



# THE K2 VALVE CONDENSER MICROPHONE

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Serial Number: .....

Checked by: .....

Date: .....

We at Rode would like to thank you and congratulate you on purchasing the Rode K2. This valve microphone represents the finest studio microphone technology currently available. The K2 is a valve condenser design in the tradition of the classic studio microphones. The character of the K2 sound will become immediately obvious the first time you record with it. While we have captured the subtlety of the legendary valve microphones, we have also made sure the noise specification and reliability is equal to current professional recording standards.

Please take a little time to read this short manual as it will help you get the most from you microphone.

We welcome feedback from our customers so why not drop us a line and tell us your story.

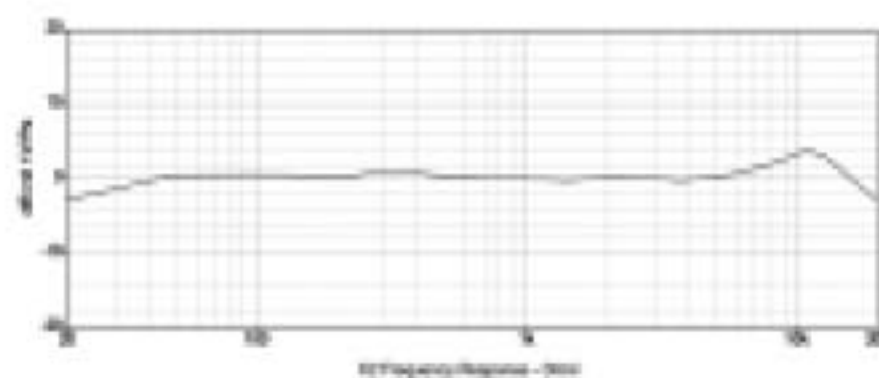
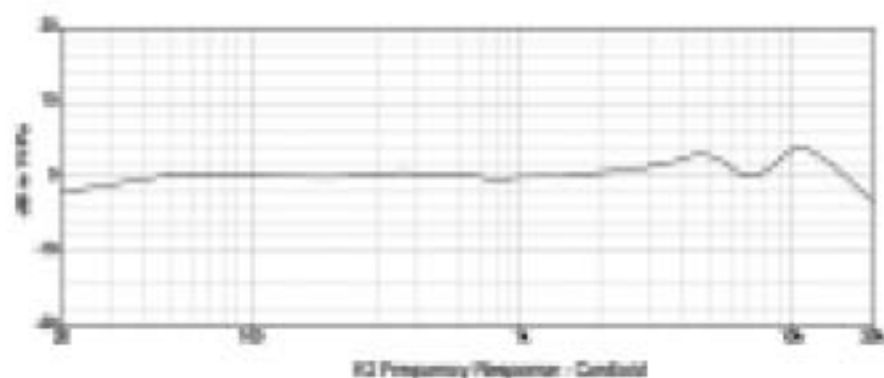
Again, thank you for your purchase.

**Peter Freedman**  
RODE MICROPHONES  
Sydney Australia

# SPECIFICATIONS

<b>Acoustic Principle:</b>	Externally polarized 25 mm (1") condenser
<b>Active Electronics:</b>	Valve impedance converter with bipolar output buffer.
<b>Pickup Pattern:</b>	Multi pattern (see graph)
<b>Frequency Response:</b>	20 Hz ~ 20 kHz (see graph)
<b>Output Impedance:</b>	200 $\Omega$
<b>Sensitivity:</b>	-36 dB re 1Volt/Pascal (16 mV @ 94dB SPL) +/- 2dB
<b>Equivalent Noise:</b>	10 dB-A SPL (per IEC651, IEC268-15)
<b>Maximum Output:</b>	> +30 dBu (@ 1% THD into 1k $\Omega$ )
<b>Dynamic Range:</b>	150 dB (per IEC651, IEC268-15)
<b>Maximum SPL:</b>	162 dB (@ 1% THD into 1k $\Omega$ )
<b>Signal/Noise:</b>	> 81 dB (1kHz relative to 1 Pa; per IEC651, IEC268-15)
<b>Power Requirements:</b>	Dedicated Power Supply (110 ~ 120V/220 ~ 240V, 50/60Hz)

## Frequency Responses

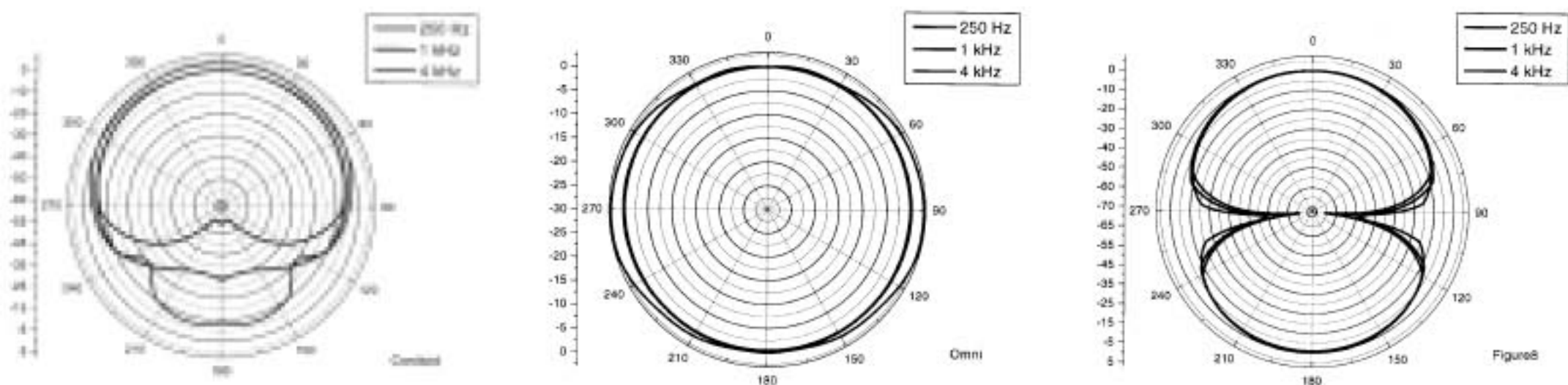


# FEATURES

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- New large capsule with gold-sputtered diaphragm.
- Ultra low noise.
- Wide dynamic range.
- Class 'A' valve circuitry.
- Hand-selected and graded 6922 twin-triode valve.
- Dedicated Power Supply.
- High strength welded and heat-treated steel mesh head.
- Durable satin nickel finish.
- Internal capsule shock mounting.
- High level of RF rejection.
- Supplied complete with SM2 Shock Mount and RC2 Custom Carry Case.
- Designed and manufactured in Sydney, Australia.
- Continuously variable polar patterns. From omni, through cardioid to figure of eight, controlled at the power supply.

## Polar Responses



# ACCESSORIES

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**K2 Power Supply**



**K2 Cable**



**RC2 Custom Carry Case**



**SM2 Shock Mount**

# BEFORE USING THE K2

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- Ensure that your K2 has been set to the correct voltage as used in your country.
- The back panel of the K2 power supply has a mains input socket, a signal ground (earth) lift, a mic input socket, a voltage selector, and a mains power socket which also incorporates a fuse.
- The front panel of the power supply has the mains power on/off switch, and a blue LED (light-emitting diode) to indicate power status. It also houses the rotary control for operation of the totally variable polar patterns. (See 'NOTE' below).
- The K2 can be used with mains supply voltages of between either 110-120V 50/60Hz, and 220-240V 50/60Hz with the correct switch settings.
- To select for 100-110V use, set the Voltage Selector to 115V.
- To select for 220-240V use, set the Voltage Selector to 230V.
- Note: On either voltage selection the mains fuse (inside the mains socket) must always be a T500mA slow blow fuse.

**NOTE: NEVER OPEN THE POWER SUPPLY, THERE ARE NO USER SERVICABLE PARTS INSIDE AND LEATHAL VOLTAGES PRESENT!**

**FOR ALL SERVICE PLEASE SEND THE UNIT TO AN AUTHORSIED RODE SERVICE AGENT OR CONTACT RODE AT [WWW.SUPPORT@RODEMIC.COM](http://WWW.SUPPORT@RODEMIC.COM)**



NEVER REMOVE THE MAINS EARTH Doing so can have lethal consequences

ACHTUNG: LEBENSGEFAHR! ENTFERNE NIEMALS DEN SCHUTZLEITER

NON SCOLLEGATE IL FILO DI TERRA Potrebbe essere molto pericoloso per il rischio di scosse elettriche

RELIEZ IMPERATIVEMENT L'ALIMENTATION A LA PRISE TERRE sous risque mortel d'électrocution

NUNCA MANIPULE LA TOMA DE TIERRA, ESTA ACCION PUEDE TENER GRAVES CONSECUENCIAS

Having ensured that the power supply is now set to the correct voltage, you can begin to connect the K2 to its supply.

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- Take the K2 Cable (supplied) and connect the male 7pin plug to the 7pin input socket on the back panel of the power supply.
  - Connect the other end of the cable (female 7pin plug) to the microphone. (See Picture). Ensure that both these plugs are correctly aligned and pushed firmly into their respective sockets.
  - Now connect a microphone cable to the output socket



- of the power supply taking that output into your mixer/pre-amplifier. We suggest you use a high quality microphone cable preferably with gold-plated contacts. Use as short a cable as is reasonable, as long cables can adversely affect sound quality.
- Ensure that the K2 is fixed securely (using the SM2 shock mount) to a stable microphone stand. The K2 condenser microphone is a precision instrument, and should not be dropped, banged or knocked. Take care.
  - Connect the power supply to the mains supply, and you are ready to switch on and begin using the K2.
  - When you switch on the unit, the blue LED on the power supply will glow. It is wise to allow a minute or two to ensure that the K2 is stabilised and ready for use.
  - For vocal use, we recommend the use of a 'Pop-Stopper' wind screen, which will help to reduce high-level plosives which are evident when 'B' and 'P' sounds are emitted within close proximity to the microphone.
  - If an Earth Loop is present, (a mains frequency hum), there is a Ground Lift switch on the back panel of the power supply which should be raised to the 'lift' position. This earth loop can appear when two devices which are both earthed are connected together.
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## **NOTE: Continuously Variable Polar Pattern**

Your K2 can be adjusted to any Polar Pattern from omni, through cardioid to figure of eight. This flexibility allows recording of most instruments and/or voices with absolute control.

Select the preferred Polar Pattern. This is done with the circular dial (knob) on the front of the K2's Power Supply. (The most commonly used pattern for vocal recording is Cardioid – dial in the 12o'clock position).

When the cardioid position is selected, the microphone picks up sound from in front of the microphone, and rejects sound from the rear.

When in the omni position (fully anti-clockwise), the microphone picks up sound from all around the microphone and there is less proximity effect than in cardioid mode. (Proximity Effect is an increase in lower (bass) frequencies when the sound source is 'close' to the microphone). The omni pattern is commonly used for room (ambient) mic'ing or to record a more natural sound when close mic'ing instruments.

When in the Figure 8 position (fully clockwise), the microphone picks up sound from in front and behind, and rejects sound from the other two sides. This pattern is commonly used for interviews (2 people with the microphone between them) or in conjunction with a cardioid microphone to use the MS (mid-side) stereo recording technique.

You are able to select any position between these three main settings.

For example, if you choose a setting about halfway between the omni and cardioid positions, you will notice 'some' sound being picked up from the rear of the microphone, instead of being almost completely rejected (in cardioid). This can be particularly useful when you do in fact wish for 'some' sound from the rear, but not so much as when in omni mode.

Experiment with the K2; listen to the various patterns, and decide what suits your current application best.





## Vocals

We strongly suggest the use of a 'pop-filter' for ALL vocal recording. Plosives ('P's, 'B's and 'C's) can produce a sudden jet of air which can cause the capsule to 'bottom out' (overload) and produce a 'popping' sound. Pop filters help to prevent the effects of plosives. Moisture on the capsule can cause problems for condenser microphones but the use of a pop filter reduces that risk.

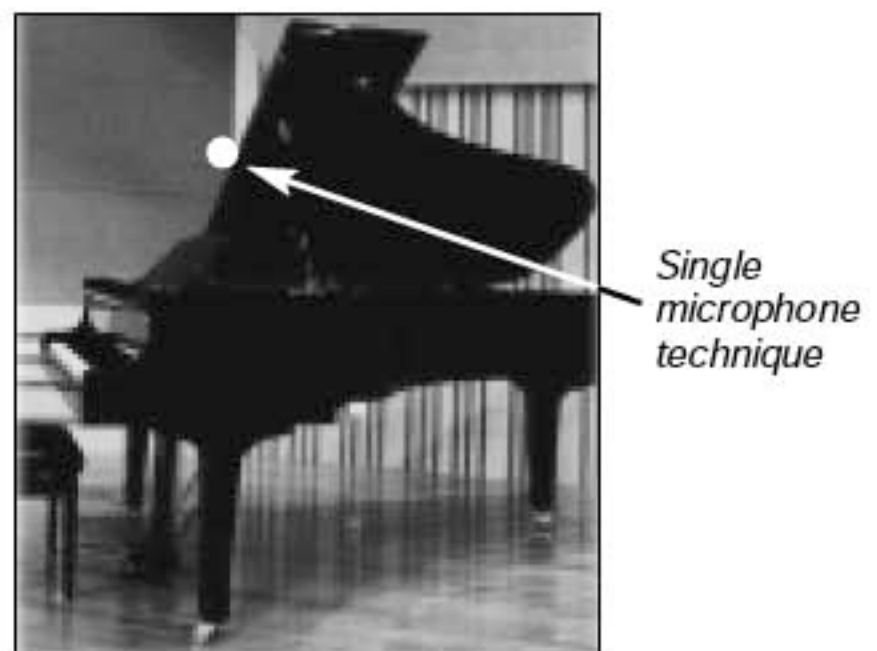
Placement of the microphone and pop filter are important and depend on the volume and style of the vocalist. The best position will be determined only by experiment but the graphic above may be considered a reasonable starting position.

The Proximity effect is experienced when close to the microphone, and that is evident with an apparent increase in the lower (bass) frequencies. Proper microphone technique can enable good use to be made of this effect.

E.g. Intimate or low-volume phrases can be recorded 'within proximity' (closer to the microphone), and louder sections of the performance will be presented from a greater distance. This 'microphone control' is of utmost importance when wishing to give expression to a vocal recording.

## Piano

To record a piano using a single microphone that microphone should be placed approximately 60cm (or 2') above the centre of the sound-board, aimed slightly towards the front of the piano.



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To record the piano using X/Y Stereo technique, two K2's should be angled at 90-110 degrees to each other, over the hammers with one mic aimed towards the lower strings and the other towards the high strings.

The gold dots should be directed down, towards the piano.

An effective stereo ambience can be achieved by recording the lower keys on the left and the high keys on the right, placing the middle keys around the centre of the sound spectrum.

## Drums

There are various ways to record drum kits.

Single microphone 'overhead', two microphones overhead (eg X/Y or spaced

Multiple microphones used close to individual drums & cymbals. (i.e. Close mic'ing).

To record a kit with a single microphone, we suggest that you begin by placing the mic' above the centre of the kit at the same height as the kit is wide, with the front of the microphone facing down.

To record the kit with TWO overhead microphones, they should be used at a similar height (as above) and depending on the size of the kit, between 1-2m apart. The mic's would probably be equi-distant from the snare drum.



To record a kit using the X/Y stereo technique, two K2's should be placed (as above in the single microphone position) with the front of each microphone pointing down, and each at 90-110 degrees to each other.

*K2 facing down towards drum kit*

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## Acoustic Guitar

A common (single) microphone position when recording acoustic guitar, is between 20 and 30cm 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 desired response will depend on the instrument, the style of playing, and the sound aspired to.



## 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 that 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. We hope that the above information is of assistance to newcomers to the art of music recording.



There are many sources of further information on recording and microphone technique which are too extensive to detail here, and we hope that you will investigate those techniques with your RODE microphones. We wish you success and thank you for choosing RODE.

**WARNING: NEVER REMOVE THE MAINS EARTH. DOING SO CAN HAVE LETHAL CONSEQUENCES.**



NOTE: There are no user-serviceable parts inside the K2 power supply, but there ARE potentially lethal voltages. If the supply does not work correctly, you should consult either the dealer you purchased the microphone from, or a qualified electronic technician. Do not under any circumstance open the unit yourself.

# WARRANTY SERVICE

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All RODE products are warranted for one year from date of purchase and the warranty card or website registration facility should be used to register your purchase.

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 problems or have any questions regarding your RODE microphone, first, contact the dealer who sold it to you. If the microphone requires factory-authorized service, that dealer will organise return. 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 or contact your local distributor.

## **International**

RODE Microphones, ABN: 91 000 576 483  
Unit 2, 107 Carnarvon Street, Silverwater NSW 2128 Australia  
Ph: 61 2 9648 5855, Fax: 61 2 9648 2455

## **USA**

P.O. Box 3279  
Torrance, CA 90510-3278  
Ph: 877 328 7456 (Toll Free Within the U.S.) Ph: 310 328 7456, Fax: 310 328 7180

## **Technical Support**

For information and technical support questions contact: [support@rodemic.com](mailto:support@rodemic.com)

## **In the United States and Puerto Rico, contact:**

[support@rodemic.com](mailto:support@rodemic.com)  
Ph: 877 328 7456 toll free or Ph: 310 328 7456

## **In Australia, contact:**

[support@rodemic.com](mailto:support@rodemic.com)  
Ph: 02 9648 5855

## **Anywhere except Australia, the United States and Puerto Rico, contact:**

[support@rodemic.com](mailto:support@rodemic.com)  
Australia: Ph: 61 2 9648 5855