

RØDE[®]
MICROPHONES



M3 Instruction Manual



www.rodemic.com

CE (EMC, LVD) 

Introduction

Congratulations on purchasing the **RØDE** M3 microphone.

The M3 was created to allow you to achieve the very best results from both live performance and in the studio.

One of the key features of the M3 is that it has been designed with a switchable PAD and high pass filter, which gives you greater control of the sound source.

It is battery operated to allow versatility with locations as well as being manufactured in a sleek contemporary black design.

Please take time to read through the manual provided to help you get the very best from your M3.

For more information on the M3 and other **RØDE** products, please visit www.rodemic.com.

Thank you for your purchase and please enjoy yet another great product from **RØDE**.



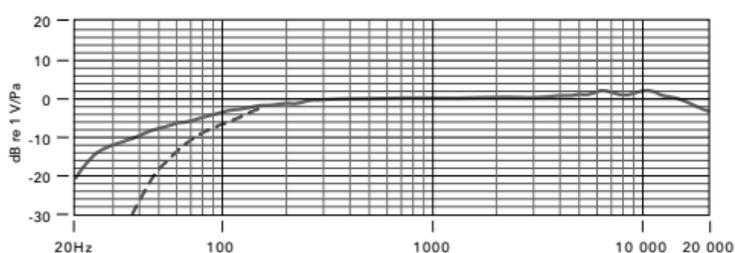
Peter Freedman
RØDE Microphones
Sydney, Australia

Specifications

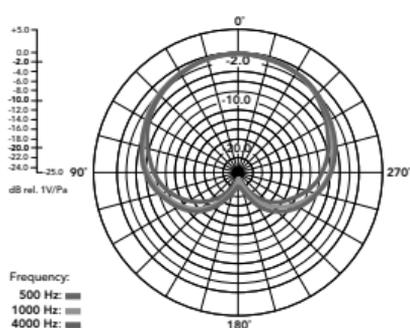
Acoustic Principle:	Permanently Polarised Condenser
Directional Pattern:	Cardioid
Frequency Range:	40Hz ~ 20,000Hz selectable High Pass Filter (HPF) @ 80Hz 12dB/octave (see graph)
Output Impedance:	200 Ω
Sensitivity:	-40dB \pm 3dB re 1V/Pa @ 1kHz (6.3mV/Pa @ 94dB SPL)
Equivalent Noise:	21dBA SPL (A - weighted per IEC651)
Maximum Output:	+9.22dBu (@ 1% THD into 1k Ω)
Dynamic Range:	121dB (per IEC651)
Maximum SPL:	142dB (@ 1kHz, 1% THD into 1k Ω load)
Signal/Noise:	73dB SPL (@ 1kHz, rel 1Pa)
Power Requirements:	1.6mA - battery 6.5mA - 48V Phantom Power
Battery Life:	>200 hours
Output Connection:	3 pin XLR, balanced output between Pin 2 (+), Pin 3 (-) and Pin 1 (ground)
Net Weight:	390g (no battery)
Shipping Weight:	1,285g
Dimensions:	Length - 225mm (8 ³ / ₄ ") Diameter - \varnothing 33mm (1 ⁵ / ₁₆ ")

Specifications

Frequency Response



Polar Responses



Features

- Heavy duty metal body
- Internal capsule shock mount
- High level of RF rejection
- Switched high pass filter @ 80Hz-12dB/Oct
(-10 and -20dB PAD)
- Low handling noise
- Heat treated high-strength mesh head
- Battery status indicator
- 9V Battery Power and 24 - 48V phantom power
- Designed and manufactured in Australia
- Full 10 year guarantee

Contents



M3 Microphone



Carry Case



Pop Shield



RM3 Mic Clip

Powering the M3

The **RØDE** M3 is suitable for a wide range of applications. Recording, stage, and location work are all well within the capabilities of this microphone. Its low noise and full frequency response ensure the sound quality is at a standard that is expected by today's musicians and engineers.

You may use either phantom power (see *Specifications* - page 3) or 9V battery to operate your M3.

Phantom power (P48 & P24)

Most professional mixing consoles include a 48 volt phantom power supply; if yours does not, a separate one may be used. Whichever power supply or cables you use, ensure they are professional units and are working correctly.

Note: When using phantom power, a battery may be in or out; if a battery is installed it will not be utilised.

To connect an XLR cable;

1. Before you connect your mic, ensure that the XLR cable you are using is wired correctly to match the output pins on the M3. The M3 offers a balanced microphone level output and is wired as follows: Pin 1 (earth), Pin 2 (+) and Pin 3 (-).

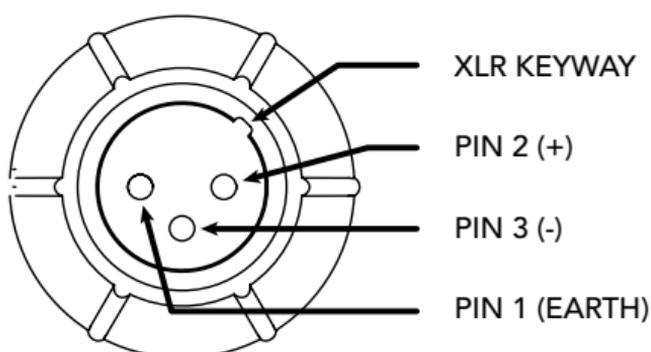


Figure 1 - XLR jack

You may of course use XLR-XLR, XLR-jack, or XLR-mini jack plugs depending on your relevant input socket.

2. Make sure you use a high-quality, low-loss XLR cable that is as short as practical to avoid losses and distortion.
3. To connect the XLR cable, hold the M3 in one hand and your 3-pin XLR cable in the other. Align the slot on the XLR cable to the groove on the inside of M3 body and insert (figure 2). Ensure that the XLR cable 'clicks' into place so that it can not be removed unless the release latch is used.



Figure 2 - Connecting XLR cable

Battery power (9 volt)

If phantom power is not available on your equipment, you will need to use battery power. 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. Tests have shown a life expectancy for a high quality alkaline battery used in the M3 to be in excess of 300 hours. This is roughly the equivalent of 6 hours usage per week for a year.

To fit the battery:

1. Unscrew the lower section of the body to reveal the battery cavity (figure 3).



Figure 3 - Unscrewing M3 body

2. Flip open the battery clip so that it doesn't interfere with loading the battery.
3. Insert the battery into the cavity, inserting the non-terminal side first. Take note of the plus and minus symbol on the floor of the battery cavity to ensure the battery is positioned the correct way (figure 4).



Figure 4 - Inserting the battery

4. Push the battery into place so that it is parallel with the top of the cavity. Secure the battery in place by flipping the battery clip over so that it sits on the battery.
5. Reassemble the body, screwing lower section firmly together with the upper section.

Operating the M3

The M3 may be connected to a mixer (recording or live), and battery power will only be required if the mixer does not have an in-built phantom P48 or P24 supply. Connection may also be made direct to a portable DAT or other tape machine enabling field/location operation using the 9V battery supply.

The M3 microphone has both a PAD switch and a Filter switch.

On/Off Filter switch

The filter switch is a multifunctional three position switch. It will control main power (from battery), microphone mute and filter selection (figure 5). Take the time to learn what each position does so that you can get the best performance from your M3.

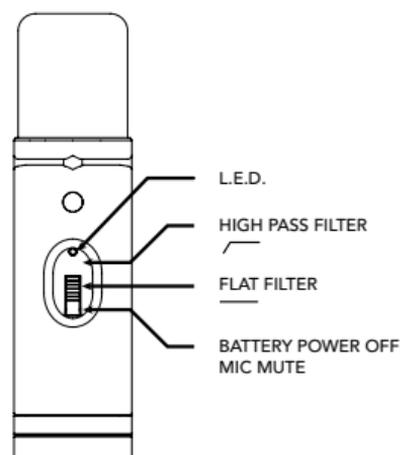


Figure 5 - L.E.D. and Filter Switch

The two-position variable High-Pass Filter enables you to step from a flat response to 80Hz cut.

Use the high pass filter when you wish to remove low frequency noise

that is not part of your intended sound source. Remember however the tonal characteristics will be affected by this, so it is important that you listen to the sound both with and without the HPF in circuit before deciding if it is appropriate for the source.

L.E.D light indicator

The M3 has a handy power indicator light to help notify you when the battery is running low.

L.E.D. SINGLE FLASH – When the L.E.D. flashes (illuminates for around one second), the battery power is 'good'. This indicates that the microphone has just been powered.

L.E.D. STAYS ON – When the L.E.D. light illuminates continuously the battery power is getting low. Please replace the battery as soon as possible, as the microphone's sensitivity is greatly compromised when operated with a low battery.

Note: When using M3 on battery power, it is a good idea to keep the microphone in the off position when not in use. This will save battery power and increase the battery life. We recommend that during long periods of non-use the battery should be removed, as it may leak and potentially damage the microphone.

PAD switch

The PAD setting provides a -10 or -20 dB reduction in sensitivity and is commonly referred to as attenuation.

To access the PAD switch unscrew the lower section of the body to reveal the switch (figure 6)



Figure 6 - PAD switch

A small screwdriver or pen can be used to alter the switch positions as required.

A choice between 0dB, -10dB and -20dB settings can be selected (figure 7). We recommend you start with

0dB selected first and assess the sound quality before making further adjustments.

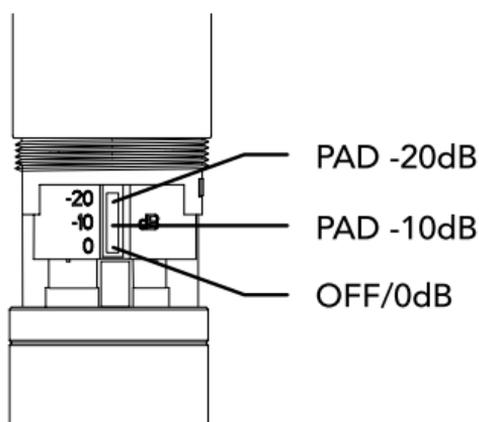


Figure 7 - PAD switch selection

The **RØDE** M3 has been designed with a special recessed slide switch that is placed inside the microphone to reduce the possibility of unauthorised or mistaken activation.

Mounting the M3

A stand mount clip (RM3) is included with your M3 and should be used to connect the M3 firmly and safely to a stable microphone stand.

How to attach the stand mount

1. Before placing the M3 into the RM3 stand mount, remove all cables and connectors to eliminate the possibility of damaging the connectors.
2. Place the M3 into the RM3 by inserting the mic on an angle (figures 8 & 9).



Figure 8 - Microphone mounting



Figure 9 - Microphone mounting

You will notice the holder is quite firm. This is intended to stop the mic from coming loose. Ensure you leave the On/Off Filter switch facing upwards to enable better access while in its mount.

Recommended Initial Setup

Now that you have the M3 securely fastened to a mic stand or tripod, and the audio output XLR connected, you are ready to fine tune your setup.

1. When first switching the mixer on and phantom power is applied to the M3, or when the microphone battery power is switched ON, several seconds should be allowed for the microphone to stabilize.

We recommend that all connections made to the mixer or recorder are made with the attenuation (gain) set to OFF (0db).

2. 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).
3. Sound quality is of course subjective and 'your sound' will be achieved with experimentation. We suggest that you begin with EQ set FLAT/OFF (no boost or cut). Remember the EQ cannot change the acoustic properties of a room. In a 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 can also have a dramatic effect on the sound quality.

The best way to assess your recording environment is to listen to the sound you wish to record acoustically first. Remember that no amount of EQ can correct a 'bad' recording environment. Any further desired modification of sound can then be undertaken with the EQ and effects.

4. Live/Stage Use: As a live vocal mic, the M3 offers studio-quality sound on stage, which is not achievable with a dynamic microphone. A characteristic of most dynamic vocal microphones is that their 'full frequency response' is only evident when they are used very close to the sound source (within the proximity effect area). The low frequency of the M3 extends to below 20Hz which is an attractive quality for most recording situations.

For live performance however, you may wish to reduce these frequencies when using the M3 as a vocal microphone. If you have an external high pass filter/bass roll-off, switch it in.

Alternatively, try moving the microphone away from the sound source (out of the proximity effect) or adjust the on-mic filter switch.

This basic microphone control/technique should be practiced, to ensure that the best possible results are achieved.

Care and Maintenance

1. Like all electret condenser microphones, the M3 should be kept dry at all times. The capsule will be potentially subject to moisture during vocal use, and we strongly recommend the use of the foam windscreen (supplied with your M3) during all vocal applications. This screen will also minimise plosives (the high sound pressure levels of pronounced B's and P's which can bottom-out the capsule).
2. Although the M3 is a well-built, durable microphone it is subject to damage. You should be careful not to drop or knock it as this could cause internal damage to the electrical components. After use, the M3 should be wiped clean with a soft cloth, and stored in its protective case together with its accessories.

A pack of moisture absorbent crystals (silica gel/desiccant) is provided with your mic, and should be stored in the case with the mic. These crystals should be blue and if they have turned pink they are no longer active. To restore them, place the pack in an oven set between 100-150°C until they return to their original colour.

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

Warranty

*All **RØDE** products 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.