



Melbourne's Award Winning Singing, Music & Entertainment School

MICROPHONE TECHNIQUE

Few singers practice their microphone technique enough, which results in some fantastic voices being overlooked due to poor sound quality or bad technique when performing live.

How do you prevent this without the aid of a sound engineer or years of experience? Simple! - Practice makes perfect and if you have the facilities to set up a P.A. and tape recorder at home or use a rehearsal studio you have a distinct advantage!! Even if you don't have this equipment, you can still experiment with amplified sound by using your home stereo or karaoke machine and a microphone. The quality may be extremely poor and muffled (depending on how good the system), but you should still be able to get a basic idea of mic positioning and distance with a little practice.

Obvious points to remember when using amplification of any kind:

Pointing the microphone towards a speaker when you are too close causes a high pitched noise called FEEDBACK.

Having the volume too high will cause FEEDBACK and DISTORTION.

Incorrect wiring & connections can cause electric shocks, equipment breakdowns, horrible humming or even pick up the radio!

The most common mistake is holding the microphone too close or too far from your mouth. This results in your singing sounding muffled and distorted, too distant or no vocal sound at all. With a little practice this is easy to rectify and should become a part of your rehearsal routine.

Set your volume controls so that the backing track is lower than your singing.

To avoid distortion, ensure the mic is held no closer than 2 to 3 inches from your mouth during normal singing. You will have to experiment a little as the distance is dependant on the individuals natural power and ability to project.

Gradually move the microphone away as you continue to sing and listen to the effect - at what point does the vocal sound start to fade? - That is your furthest point to remember. The optimum

distance for clarity is between the shortest and furthest points.

There are times when you will be using more volume, hitting higher or lower notes or almost whispering. Practice using different distances and positions to see how using the mic creates different effects.

Avoid moving the microphone closer to your mouth when aiming for high or more powerful notes and practise using the microphone to enhance or lessen certain effects until it becomes second nature.

Hiding Faults

Microphones can be used effectively to hide as well as enhance a singer's faults. One of the most common techniques used to hide a lack of sustained breath control is to hold the microphone away from you when starting a sustained note and bringing it closer to the mouth as the note diminishes. To the audience the note appears to maintain its volume, although it is important to keep on pitch and not attempt to hold the note for longer than is comfortable!

Vocal Effects

Using a microphone allows the singer to employ various vocal effects to enhance a recording or performance including: Adjusting airflow through the nose, opening the throat to provide more resonance, glottal attack, soft-palate edge (with vibration of the uvula), good enunciation and diaphragmatic pulsation (like a pant).

Avoiding Pop's & Hisses

Certain consonants create sounds that when electrically amplified become abrasive or detract from the intended effect. B's & P's can sound over-exaggerated causing a 'pop', whilst the natural sibilance of C, S & Z can produce a hissing sound. These are problems that can be avoided by using a combination of correct [diction](#) and [mic technique](#).

When using a microphone for the first time, the natural instinct is to place it in right in front of your mouth, but with today's technology, most microphones are extremely sensitive and capable of picking up sound from any direction, moving the microphone further from your mouth, angling it to one side or lowering the mic and angling it more towards the ceiling will lessen the sensitivity by just enough to prevent the pops and hisses, the adjustment can be quite fine depending on the EQ & gain settings plus equipment type and quality.

Common Problems with Microphones

Despite improvements in technology, Radio microphones can be the cause of many a singer's nightmares with outside transmissions blasting out over the speakers, cut outs and dodgy batteries causing distortion. Small microphones attached to clothing can easily work loose causing loss of sound and even hand held radio mic's left on while backstage can pick up discussions or noises that you would rather remain private! Even the humble lead mic if left on in a stand will pick up footsteps or other loud vibrations from the stage and floor. If using a radio mic, always use check the batteries before use, keep a couple of spare batteries handy, make

sure arials or leads are not twisted or bunched up and have a lead mic available in your kit bag for emergencies. Switch off all microphones during breaks or when not in use.

Which Mic?

Everyone has their own personal preference, but omni-directional microphones are pretty common for live work and although they lack the sensitivity of some other microphones, they have the advantage of being robust and capable of picking up sound from any direction. There are lead and wireless versions, both of which can be hand-held or placed in a stand. Head-set mic's are useful for dancers or singers who want to have complete freedom of movement but are 'fixed' in front of or to one side of the mouth, this means that the singer is unable to manipulate the microphone.

Before purchasing a microphone it is worth trying out several types. A mic that makes one singer sound great can make another sound bassy or tinny and although this may be due in part to the EQ settings or effects used, it can also be due to the microphone response. Most recording studios carry several microphones to cater to all types of vocalist and singer/ songwriters may find that purchasing a microphone for 'live' performance and one for 'recording' solves a few clarity problems.

Personal fav's include the Shure SM58 and Sennheiser