

TRAINING PEOPLE HOW TO USE MICROPHONES

by Bruce Bartlett, Crown International

How to teach church leaders, choir members, and others how to use mics properly.

You set up mics in the sanctuary, plug them in, label your console inputs, and mix the service. So far so good, but your job is not done. One of the most important factors in getting a good sound from your mics is training the users.

An audio person has all sorts of gear to help with microphone problems: graphic equalizers to reduce feedback, compressors to control dynamics, faders to control handling noise, foam windscreens and low-cut filters to reduce breath pops. But it's much better to have the mic users prevent those problems at the source. All it takes is a little training.

Listed below are some tips to pass along to the people who use mics in your services. Be sure to demonstrate each tip with your system microphones turned up so that people can hear the effects of their mic usage. *Demonstrations are printed in italics below.*

HANDHELD MICS

These mics are used by praise-team singers and soloists. I'm sure you have heard many sonic problems associated with handheld microphones: handling noise, breath pops, inconsistent volume, feedback, and even no sound.

* To prevent handling noise, hold the mic rather firmly and don't rub your fingers on it.

Demonstrate what handling noise sounds like.

* To prevent breath pops, either sing with lips touching the foam windscreen, or hold the mic vertically and sing over the top of the mic about 2 to 3 inches away. *Demonstrate breath pops by repeating the phrase "Peter Piper" into the front of a mic from 3 inches.*

* To keep the volume consistent, stay a constant distance from the mic. Or better yet, back off from the mic when you sing loudly, and come in closer for soft passages. *Demonstrate inconsistent volume by moving toward and away from the mic while speaking.*

* To get more volume in the house without causing feedback, get closer to the mic. Again, either sing with lips touching the windscreen, or hold the mic vertically and sing over the top of the mic about 2 inches away. All singers in the choir should be the same distance from their handheld microphones. *Demonstrate how when you speak far from the mic, you can't be heard over the PA system, and when you speak close to the mic, your voice is heard loudly.*

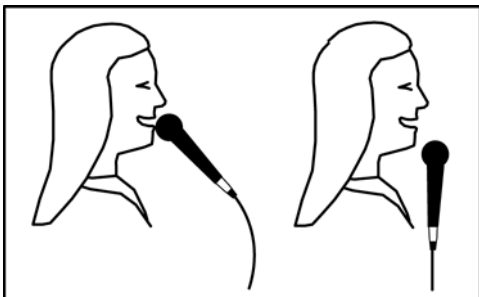


Figure 1. Two effective mic placements for a handheld microphone.

* To prevent feedback, don't aim your mic at the monitor speaker. *Demonstrate how feedback can happen if you do that.* Also, don't cup your fingers around the grille of the mic -- just hold onto the handle. Holding the grille can create a resonance that causes feedback and creates a strange tone quality.

* If your mic has an on-off switch, turn it on just before you sing, and turn it off when you are finished singing.

* If the handheld mic is wireless, locate its on/off switch. Check with the sound person before the service to see whether you should turn on the mic before speaking. Sometimes the sound person does this before the service. Usually, an LED (small light) on the end of the mic flashes or lights when the mic is on.

SINGER/GUITARIST MIC PLACEMENT

If a person sings and plays acoustic guitar at the same time, the musician needs to be aware of mic placement in order to get a natural sound without feedback, and without phase cancellations that can color the sound.

Make sure the vocal mic is aiming up toward your mouth. That way, the "dead" rear of the mic will aim partly toward the guitar and monitor speakers, so the vocal mic won't pick them up so much. If you are using a guitar mic instead of a pickup, make sure the guitar mic is about 3 inches from the guitar, midway between the sound hole and the point where the fingerboard joins the body. (Other sound engineers might have a different preference for guitar mic placement).

Demonstrate how miking a guitar close to the sound hole sounds too bassy, and miking too far away makes the amplified guitar too quiet, or picks up too much vocal in the guitar mic.

STAND-MOUNTED MIC FOR READING/ANNOUNCEMENTS

A mic on a stand is used by a singer, a reader, or a person making announcements. Often the mic user needs to adjust the height of the mic stand. *Show people how to do that.*

Many of the rules for handheld mics apply here. Check for an on/off switch and turn it on. To make your voice louder in the house, get closer to the mic. Maintain a constant distance to the microphone.

GOOSENECK MIC

This microphone on the pulpit can be adjusted for the height of the user. Grab the mic grille and point the mic at your mouth. To prevent breath pops, talk straight ahead rather than into the mic. Speak about 8 inches away over the top of the microphone. *Demonstrate how talking close to the mic grille creates breath pops and sounds too bassy.*



Figure 2. An effective mic technique for a gooseneck mic.

Adjusting an older gooseneck mic makes an unavoidable squeak -- unless the sound person turns down the mic when it is moved. Modern goosenecks adjust silently.

LAVALIER MIC

A lavalier microphone clips onto the robe of the worship leader. If the leader wanders around while talking, he or she needs to use a lavalier mic rather than a gooseneck mic at the pulpit.

Clip the mic to the robe about 5 inches under the chin. Make sure that the mic is NOT under clothing, or else the sound will be muffled. Attach the mic-cable connector to your belt (or put the connector in your pocket) so that the mic won't pull off accidentally if the cable is tugged.

If the mic is wireless, locate the on/off switch on the body-pack transmitter. Turn it on before speaking and turn it off when finished (unless the sound person wants you to leave it on all the time). Usually an LED (small light) on the body pack flashes or lights when the mic is on.

ADVICE FOR THE SOUND MIXER

Ask the worship leader when you can meet with everyone who uses microphones. A good time is right after a service. Then instruct them on proper mic usage -- or just give them this article. It will make your job a lot easier, and will make the audio better too.

#

Bruce Bartlett is a microphone engineer/technical writer for Crown International, a sound mixer, a recording engineer, and the author of "Practical Recording Techniques Fourth Edition."